

KNUD PALUDAN

ON THE BIRDS OF
AFGHANISTAN



KØBENHAVN

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ON THE BIRDS OF
AFGHANISTAN



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KØBENHAVN

Knud Paludan

ON THE BIRDS OF AFGHANISTAN

This paper is dedicated to
ERWIN STRESEMANN
on the occasion
of his seventieth birthday

THE 3rd DANISH EXPEDITION TO CENTRAL ASIA
Zoological Results 25

ON THE BIRDS OF AFGHANISTAN

By KNUD PALUDAN

Contents

I. Introduction	3
II. On the history of Afghan ornithology	5
III. Account of the journey, with notes on main habitats and their birds	
1. Some general remarks on the geography of Afghanistan	18
2. Itinerary	19
3. Physiography; characteristic birds; bird-migration	23
IV. Taxonomy and field data	62
V. Tentative list of Afghan birds	300
VI. Composition and affinities of the bird fauna	322
List of literature	327

I. Introduction

THE FIRST two of the *Danish Expeditions to Central Asia* took place in 1936–37 and in 1938–39. Their purpose was to carry out ethnographic and linguistic studies in Mongolia. The leader of these expeditions was Mr. H. HASLUND-CHRISTENSEN who, during the confinement imposed upon him by World War II, developed large scale plans for a third expedition which was to form a link between the collecting done in Mongolia and previous Danish collecting activity in Turkestan and Iran. The scope of the new expedition was much expanded, and the biological sciences were well represented through the participation of botanists, geographers and zoologists.

The first party consisting of the expedition leader, Mr. H. HASLUND-CHRISTENSEN, the botanist, cand. mag. LENNART EDELBERG, the ethnographer, magister HALFDAN SIIGER and the present author left Denmark

in the autumn of 1947 to commence work in Afghanistan. During the following spring another party of four arrived in Afghanistan among whom the entomologist, magister N. HAARLØV. The taxidermist, Mr. HANS MADSEN, who was going to assist me arrived in 1949 when I had taken over part of the administration of the Expedition.

In the autumn of 1948 the Expedition suffered the sad and irreplaceable loss of its leader, Mr. HASLUND-CHRISTENSEN who died in Kabul on September 13. The activity already in progress was continued and wound up by the parties of the Expedition, and another party was even sent out in 1950 under the leadership of Dr. KREBS in order to carry out geological and geographical research in Northern India and Kashmir. For various reasons this brought the Expedition to an end. First and foremost it was now without its leader who had taken the initiative and conducted the large scale enterprise, and in addition the political events developed quite differently from what had been foreseen when the plans were made, hence it would have been impossible to carry through the Expedition according to the original plan.

During our activity in Afghanistan we enjoyed the favour of the Afghan authorities who helped us in every possible way. In particular the University of Kabul, represented by Professor, Dr. MOHAMMAD ANAS, did everything to facilitate our work. For all support received and for all sympathy shown to us, especially during our difficult time in the autumn of 1948, I express my cordial thanks to all Afghan authorities.

In modern zoogeographical studies the need for a rich comparative material from adjacent regions is required to such an extent that satisfactory research tends to become possible only in a few of the largest museums except when more local problems are considered which normally form part of the sphere of activity of the small museums. That such difficulties were often encountered in the present work will be noticeable in the systematic section of this paper. When, after all, it has become possible to discuss many problems of taxonomy I am in great debt of gratitude to Dr. C. VAURIE, American Museum of Natural History, for all the assistance he has given me in comparing many of my specimens with the rich collections of this museum and for the care with which he has read chapter IV and corrected the more apparent linguistic errors. I express my cordial thanks to Dr. VAURIE for his unselfish help.

Valuable assistance was also received from many other quarters through the loan of specimens, comparison of material, information on specimens

from earlier collecting in Afghanistan, and discussion of tricky identifications. For all such help I am grateful to Dr. B. BISWAS (Indian Museum), Mr. I. J. FERGUSON-LEES, Mr. I. C. FRASER (British Museum), Dr. HANS JOHANSEN (Zoological Museum, Copenhagen), Mr. I. D. MACDONALD, B. Sc. (British Museum), Mr. D. MARIEN (American Museum), Colonel R. MEINERTZHAGEN, Dr. MELVIN A. TRAYLOR (Chicago Museum), Dr. FINN SALOMONSEN (Zoological Museum, Copenhagen), Mr. R. W. SIMS, B. Sc. (British Museum), and Mr. KENNETH WILLIAMSON.

My thanks are also due to Dr. C. OVERGAARD NIELSEN for the translation of the paper—with the exception of chapter IV—and to Mrs. AGNETE VOLSØE who assisted in translating part of chapter IV.

I am in deep gratitude to the foundations Carlsberg Fondet, Carlsen-Langes Legatstiftelse and Rask-Ørsted Fondet for having financially supported the working up of the material, the translation and printing of the paper.

The spelling of place names is a great problem when dealing with a country such as Afghanistan since the names are transcribed differently in the West European languages, even sometimes in the same language. I have preferred to use the forms employed on the relevant sheets of the map of Asia (1:1,000,000) published by the War Office, London. The only exceptions are a few cases where mistakes or printing errors are obvious. Throughout this paper Turkestan means Soviet Turkestan while Chinese Turkestan is called Sinkiang.

II. On the history of Afghan ornithology

The exploration of the Afghan bird fauna commenced in the previous century as a direct result of the Afghan-British wars. During the hostilities and the subsequent rectification of frontiers several British officers with an interest in ornithology entered the country. Thus the history of Afghan ornithology in the nineteenth century distinctly reflects the political development.

During the thirties Afghanistan was exposed to danger from two sides. In the east the still independent Sikhs under Ranjit Singh not only conquered northern Punjab but also Peshawar in an obvious attempt to force Afghan influence westwards, beyond the Khyber Pass, the present-day Afghan-Pakistan frontier. In the west the Persians, encouraged by Russia, made an effort to gain control of the province of Herat to compensate for the territories south of the Caucasus which they had been forced to surren-

der to Russia. The Emir of Kabul, Dost Muhammad, considered the rising power of the Sikhs the more serious threat while to the British the impending Persian conquest of Herat and Kandahar and, implicitly, the expansion of Russian influence meant a threat to the Indian frontier. These conflicting interests and mutual misinterpretation of intentions and attitudes led to the First Afghan War, 1838–42.

Attacking from Baluchistan the British army reached Kandahar towards the end of April 1839 while the entry of the troops into Kabul followed in August when the town surrendered without fight. With the army was the British army surgeon and botanist WILLIAM GRIFFITH who did the first scientific collecting in Afghanistan.

During the period from August 24 to September 17, 1839 he travelled from Kabul (Fig. 1) through the Maidan Valley, across Unai Kotal to the river Helmand. Crossing Koh-i-Baba he proceeded to Bamian through Hajigak Kotal. On his journey back he crossed Koh-i-Baba through Irak Kotal, otherwise he followed the earlier route. In October he left Kabul for Peshawar.

Early in January 1840 GRIFFITH returned to present-day Afghanistan travelling up the lower Kunar Valley to a short distance above Chigha Sarai.

In June 1840 he was back in Kabul again and between July 17 and September he made another journey to Bamian along the same route. During this trip he also visited Aq Ribat. In October he left the country and went to Peshawar.

His comprehensive diary was published posthumously:

WILLIAM GRIFFITH: *Journals and travels in Assam, Burma, Bootan, Afghanistan and the neighbouring countries.* – xxxii + 529 pp. Calcutta 1847.

This work contains botanical observations in particular, whereas the ornithological notes are rather sparse and sometimes difficult to identify. According to his own statement he collected about 350 specimens of birds in Afghanistan but he gives no list of them. However, the birds became part of the East India Company collections, and hence they have been included in THOMAS HORSFIELD and FREDERIC MOORE: *A catalogue of the birds in the Museum of the Hon. East India Company.*—2 vols. London 1856–58. The collection is now in the British Museum, London.

According to British plans the Shah Shuja-ul-Mulk who in 1809 had to resign in Kabul was now to be reinstated in succession to Dost Muhammad. He had equipped a special army which accompanied the British army into Afghanistan. Captain THOMAS HUTTON held a post in the "Pay and Com-

missariat Department" of this army which must have had its headquarters in Kandahar where he spent his modest spare time studying the bird fauna.

THOS. HUTTON: Rough notes on the ornithology of Candahar and its neighbourhood. (With some additional information on the birds of Afghanistan. – By E. BLYTH). – Jour. Asiatic Soc. Bengal 16: 775–794 (1847).

The paper gives no description or definition of the district studied, nor does it mention the period of time during which the observations were made but from the text on the individual species it appears that Hutton was in Kandahar in February of 1840 and of 1841.

In the notes supplied by BLYTH reference is made to some observations made in Kabul by ALEXANDER BURNES. In the year 1832 he travelled in Afghanistan along the route Jalalabad–Kabul–Bamian–Balkh whence he proceeded to Bukhara and Persia (*Travels into Bukhara; being the account of a journey from India to Cabool, Tatory, and Persia.*—Vol. I–III. London 1834). On account of his knowledge of the country he was sent on a Commercial Mission to Kabul in 1837. He did not arrive until the autumn of 1837, and he stayed until April 1838. It would seem that the drawings of local birds made by an Afghan artist on his initiative date from this stay. Subsequently the drawings and a few skins were given to the Asiatic Society of Bengal where they were examined by BLYTH who mentions them in his notes. During the war BURNES returned to Kabul but was killed during the riots in November 1841.

In the year 1873 the British Government sent a mission with letters and presents to the newly appointed Atalik, or King of Yarkand and Kashgar. FERDINAND STOLICZKA was attached to the mission as a naturalist. The mission also counted Captain JOHN BIDDULPH as a member. He, too, collected birds which together with his notes were used in the work mentioned below. The journey started from Srinagar on August 5 and went by Leh and the Sanju Pass to Yarkand and Kashgar. The journey back commenced in the spring of 1874. In early April one party of the mission, among whom STOLICZKA and BIDDULPH, left Aktash and travelled west into Wakhan, the northeast province of Afghanistan and down along the upper reaches of Ab-i-Panja. It had been planned to continue through Afghanistan but in view of the political situation in Kabul the plan was abandoned and the mission halted at Qala Panja from where it followed the northern tributary of Ab-i-Panja (the river Pamir) up to Lake Victoria (=Wood's Lake) and thence back to Aktash where the party arrived on May 4. Less than two months later, on the way back, STOLICZKA died and was buried in Leh.

Travelling through Wakhan the party collected and observed 56 species which received attention in:

R. BOWDLER SHARPE: Scientific results of the Second Yarkand Mission, based upon collections of the late FERDINAND STOLICZKA. Aves. – XVII + 153 pp. London 1891.

A few decades after the First Afghan War the situation became critical again. In the thirties the British were apprehensive of Russian influence through Persia. During the sixties, however, the threat came from the north following the Russian penetration through later Russian Turkestan. In 1869 the ruler of Bukhara was forced to acknowledge Russian suzerainty, and thus Russian influence reached the northern frontier of Afghanistan. This caused alarm in Afghanistan as well as among the British in India but in spite of the common interest an agreement on joint Afghano-British measures was not reached. The fact that, in 1878, a Russian mission was received in Kabul while a British mission was not allowed into the country led to the Second Afghan War (1878–81).

In November 1878 the British launched an attack along three routes, through the Khyber Pass, through the Kurram Valley, and from Quetta towards Kandahar. With the latter detachment was ST. JOHN, a political officer, who remained quartered in Kandahar through 2½ years until the troops were finally evacuated in April 1881. He found good opportunities for watching the breeding birds as well as the bird migration through his territory from Girishk in the west to Kalat-i-Ghilzai in the north east. One of HUME's experienced bird-skinners was with him and a fairly large collection had already been brought together when, in the autumn of 1879, the skinner and the collection was sent back to India. In the early part of the year there had been signs that hostilities could be brought to a stop but the situation grew worse and reached a critical point in the defeat of the British at Maiwand between Girishk and Kandahar on July 27, 1880. During the battle ST. JOHN lost all his valuable notes and part of the collection; this, however, did not prevent him from contributing the best information available on the bird fauna of this district in a paper entitled:

O. B. ST. JOHN: On the birds of Southern Afghanistan and Kelat. – *Ibis* 1889: 145–180.

Another officer taking an interest in ornithology, C. SWINHOE, arrived in Kandahar on October 6, 1880 with the troops sent up from India to reinforce the occupation army. He collected in the Kandahar area until the withdrawal of troops in April 1881. His personal notes are largely

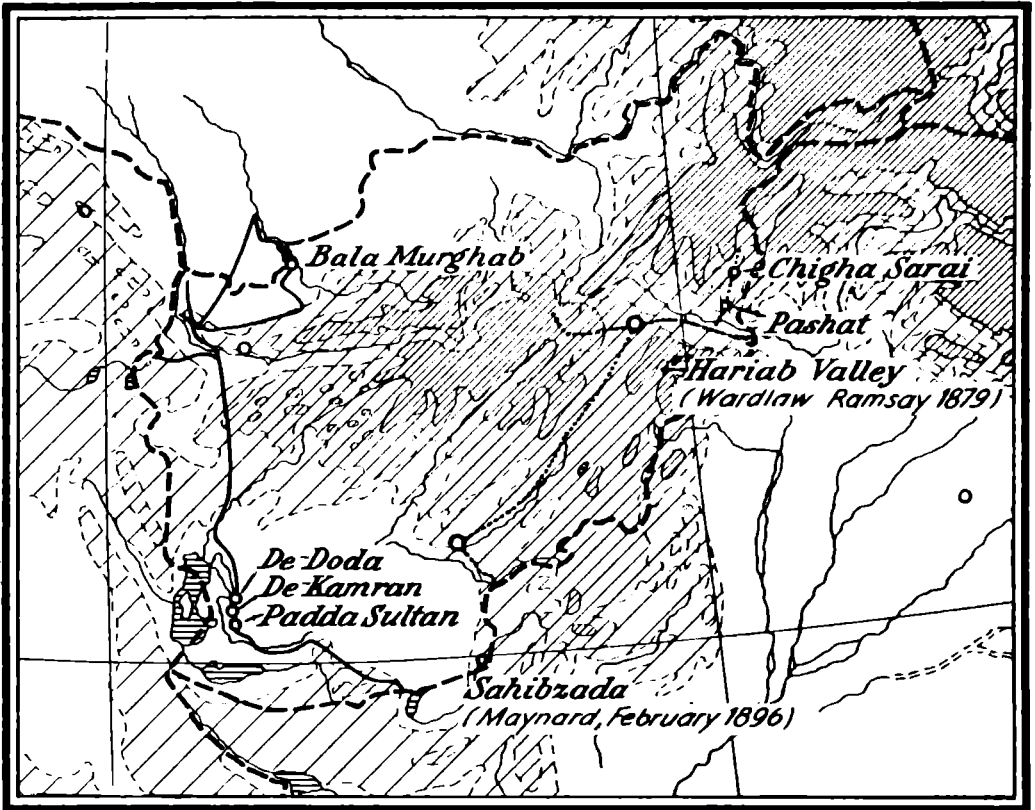


Fig. 1. The broken line indicates WILLIAM GRIFFITH'S routes (1838-39), the solid line J. E. T. AITCHISON'S (1884-85).

confined to wintering birds and early spring migrants. The material was published already in the following year in:

C. SWINHOE: On the birds of Southern Afghanistan. – *Ibis* 1882: 95-126.

The detachment moving through the Kurram Valley captured Peiwar Kotal on Dec. 1, 1878 and next occupied the Hariab Valley.

Apart from making various reconnaissance expeditions the detachment awaited the issue of negotiations taking place in Kabul. At the outbreak of new hostilities the march continued towards Kabul in September. During the quiet period from April to June 1879 R. G. WARDLAW-RAMSAY served in the army in the Hariab Valley (Fig. 1) where he had an opportunity for studying the bird fauna of the wooded hill slopes, "the prevailing trees being the deodar (*Cedrus deodara*), *Pinus gerardiana*, and *P. excelsa*." His observations, practically all we know about the bird fauna of the wooded districts along the southeastern frontier of Afghanistan, were published in:

R. G. WARDLAW-RAMSAY: Ornithological notes from Afghanistan. – *Ibis* 1879: 444-449; 1880: 45-71.

The material brought together by ST. JOHN, SWINHOE and WARDLAW-RAMSAY is now in the British Museum, London.

The Russian advance in Turkestan led to the annexation of Merv in 1884 whereby the northern frontier of Afghanistan was exposed to acute danger again. A mixed commission was appointed to define this frontier. The British members of the Afghan Delimitation Commission (1884–86) left Quetta on 21 September, 1884. The botanist J. E. T. AITCHISON acted as naturalist to the Commission. His travelling route (Fig. 1) took him through northern Baluchistan, continuing through southern Afghanistan he reached the river Helmand at Khwaja Ali on October 16. From Khwaja Ali he followed the river to Seistan and travelled through western Afghanistan to the Hari Rud Valley west of Herat arriving in Kohsan on November 18. Crossing the Paropamisus through Chashma Sabz Kotal and proceeding through Kushk he reached Bala Murghab on December 14; here he spent two months. During the spring of 1885 his travels covered a large part of northwestern Afghanistan north and south of the Paropamisus. In June and July he made a journey from Islam Qala (Kafir Qala) to Meshed and back along the same route. About August 20 AITCHISON left the country, proceeding to Meshed along a more southern route through Mushabad.

During his travels AITCHISON collected 123 bird specimens which are now in the British Museum. They were examined by R. BOWDLER SHARPE and published (p. 66–93) in:

J. E. T. AITCHISON: The zoology of the Afghan Delimitation Commission. – Trans. Linn. Soc. London **5**: 53–142 (1889).

A commission officer, Captain C. E. YATE, collected some of the birds for AITCHISON, and when the latter had left the commission YATE continued collecting in the area Bala Murghab–Maimana–Andkhui and to some extent on present-day Soviet territory along the rivers Murghab and Kushk. The material obtained, a little more than a hundred species, was presented to the Indian Museum, worked up by J. SCULLY, and published in:

J. SCULLY: On the mammals and birds collected by captain C. E. YATE, C. S. J. of the Afghan Boundary Commission. – Jour. Asiatic. Soc. Bengal **56** (2): 68–89 (1887).

In his book *Northern Afghanistan* (1888) YATE gave an account of his travels for the Commission with stray notes on the game birds. Some information is also to be found in his book *Khurasan and Seistan* (1900) which is an account of his journey in 1893 partly through the same territory.

In 1894–96 the Baluch-Afghan Boundary Commission fixed the

southern frontier of the country between the river Gomal in the east and Kuh-i-Malik Siah in the west. The medical officer of the Commission during the last year's work, F. P. MAYNARD, travelled the territory between Pishin Lora, on the western frontier of Quetta, and Kuh-i-Malik Siah collecting en route some fifty bird species. The bulk of the collecting was done in February 1896 near the village Sahibzada on the river Pishin Lora in Shorawak in the southeastern corner of Afghanistan (Fig. 1). The collection, now kept in the Indian Museum, Calcutta, is listed in:

F. FINN: List of the birds collected by the Afghan-Baluch Boundary Commission of 1896. – *Jour. Asiatic Soc. Bengal* **65**: 566–567 (1896).

The delimitation of the Afghan–Iran frontier in Seistan caused much trouble. An arbitration mission defined the frontier in 1872 but during the following decades the lower course of the river Helmand changed to a considerable extent, and disagreement on the location of the frontier ensued. In 1903–05 it was redefined by a Seistan Arbitration Commission. The Superintendent of the Commission, J. W. CUMMING, and other members collected 106 specimens of birds, now kept in the Indian Museum, Calcutta. A list of the birds was published, with some observations, in:

J. W. NICOL CUMMING: Birds of Seistan, being a list of the birds shot or seen in Seistan by members of the Seistan Arbitration Mission, 1903–05. – *Jour. Bomb. Nat. Hist. Soc.* **16**: 686–699 (1905).

This piece of information was repeated in:

E. C. STUART BAKER: Notes on two collections of birds from Seistan. – *Rec. Indian Mus.* **18**: 121–134 (1919).

The other collection mentioned in the title comprises only 31 specimens collected in December 1918 by N. ANNANDALE during a journey to Iranian Seistan with the purpose of studying the aquatic fauna of this province.

With the Seistan Arbitration Mission the period ended during which all ornithological exploration of Afghanistan was determined by wars and rectification of frontiers but nearly thirty years elapsed before the subject was taken up again, and now under more peaceful circumstances. In 1933–34 the then British Minister in Kabul, RICHARD MACONACHIE, assisted by an Indian skinner made a collection of about 250 birds which were presented to the British Museum. They were collected largely in the environs of Kabul and during excursions to Logar Valley, to the district west of Unāi Kotal, and to Ghorband Valley. The material was incorporated in the work by WHISTLER mentioned below.

In 1937 R. MEINERTZHAGEN, accompanied by SALIM ALI, collected rather extensively. They crossed the Khyber Kotal on April 2 and proceeded to Kabul. From Kabul the journey went through the Ghorband Valley, across the Shibar Kotal to Bamian and north along Surkhab down to Khanabad and Kunduz including also a trip to Haibak. The journey back to Kabul followed the same route. After a short visit to Unai Kotal they left the country again through Khyber on June 1. The birds collected were worked up in:

R. MEINERTZHAGEN: On the birds of Northern Afghanistan. – *Ibis* 1938: 480–520, 671–717.

The extensive travels in Afghanistan of the American botanist W. KOELZ started in the same year, 1937, and were continued in 1939. An itinerary was never published but Dr. C. VAURIE has kindly placed at my disposal an itinerary based upon the data of the birds collected. In outline KOELZ' travels were as follows (Fig. 2): May 9, 1937 in Jalalabad, from there to Kabul; about May 19 to June 11 he proceeded to the northern slopes of Safed Koh in Khugiani; next through Laghman to Daulat Shah in Kohistan, and back to Kabul by Charikar. June 15–23 through Logar Valley and by Tera Kotal to Gardez, proceeding to Sarobi Kotal and back to Kabul. From Kabul a journey took him through Shibar Kotal (June 30) to Khanabad in Afghan Turkestan and on to Badakhshan where among other trips he followed the river Kokcha to Barak, next Warduj to Zebak and up along Sanglich to upper Kokcha which he followed down to Jurm. On August 30 he was back in Khanabad from where he proceeded through the lowlands of Afghan Turkestan through Kunduz, Tash Kurghan and Balkh to Aq Chah, Shibarghan and Sar-i-Pul. Towards the end of September he was back in Kabul. In early October the journey continued south through Mukur to Kandahar and then through Girishk to Farah whence he made a trip (October 31–November 6) to Kang in Seistan. From Farah he travelled north to Herat and proceeded to Afghan Turkestan: Bala Murghab, Maimana, Andkhui and Balkh. In the beginning of December he went through the Surkhab Valley back to Kabul. KOELZ left the country through Jalalabad around December 20.

Towards the end of August 1939 KOELZ resumed his extensive collecting activity travelling northwest from Doab at the northern entrance to Darra-i-Shikari through the northern foothills of Hindukush. From Aq Kuprak he proceeded WSW to Band-i-Turkestan and Maimana (October 20) from where, along his previous route, he went through Afghan Turkestan back towards Kabul and to Kandahar. He left the country on November 24 through Chaman.

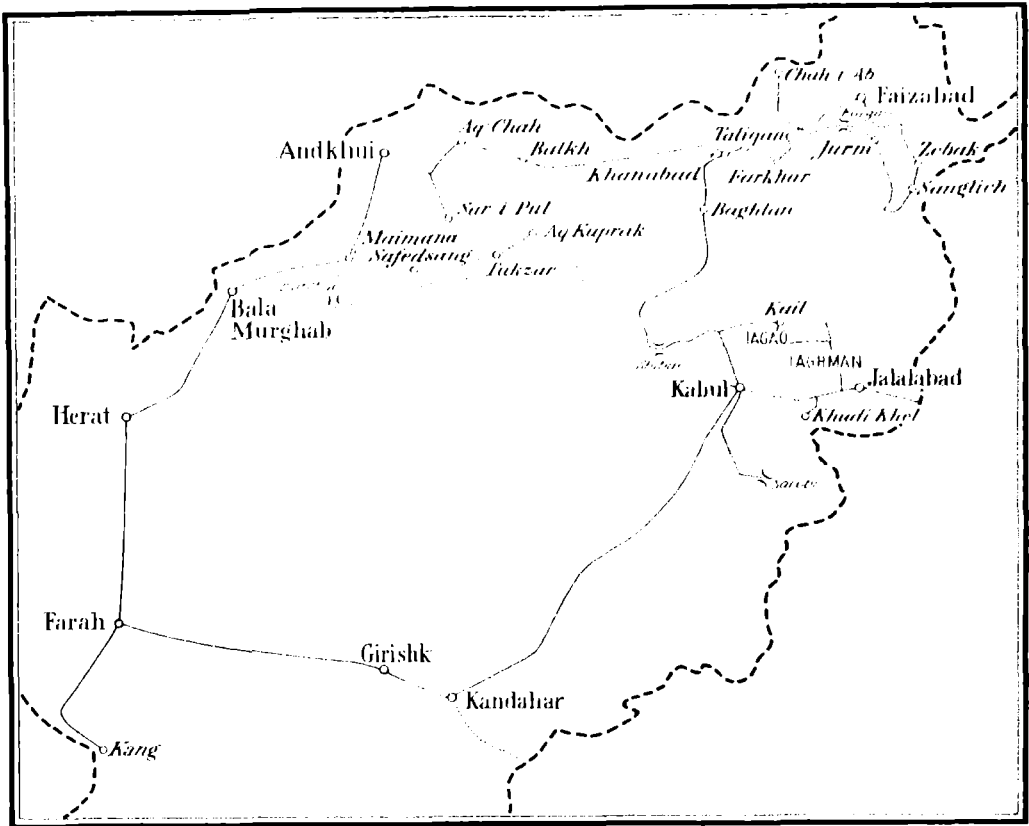


Fig. 2. Approximate routes followed by W. KOELZ: — 1937, 1939.

Although KOELZ' travels largely aimed at botanical collecting he achieved to send home the hitherto largest collection of birds from Afghanistan; it is therefore regrettable that nothing was published on the route and the observations. In the absence of the correct itinerary I have attempted to give fairly detailed information on his route although it may only be correct in outline.

The collections from 1937 are now in American Museum, New York, while the 1939 material is partly in Chicago Natural History Museum and partly in Museum of Zoology, Ann Arbor.

Based upon his material KOELZ published a number of new subspecies from Afghanistan, they are included in the survey at the end of this chapter, to which the reader is referred.

A large part of KOELZ' collections has been published as "*Notes from the Walter Koelz Collections*" Nos. 1-12 by the American Museum, New York which is a very important source of information on the ornithology of this region. The series comprises:

- No. 1. 1949. C. VAURIE: Notes on some Ploceidae from western Asia. — Am. Mus. Nov. **1406**: 41 pp.
 No. 2. 1949. C. VAURIE: Notes on some Asiatic finches. — Am. Mus. Nov. **1424**: 63 pp.
 No. 3. 1949. C. VAURIE: Notes on the bird genus *Oenanthe* in Persia, Afghanistan, and India. — Am. Mus. Nov. **1425**: 47 pp.

- No. 4. 1950. C. VAURIE: Notes on some Asiatic titmice. – Am. Mus. Nov. **1459**: 66 pp.
- No. 5. 1950. D. MARIEN: Notes on some Asiatic Meropidae (Birds). – Jour. Bomb. Nat. Hist. Soc. **49**: 151–164.
- No. 6. 1950. C. VAURIE: Notes on some Asiatic nuthatches and creepers. – Am. Mus. Nov. **1472**: 39 pp.
- No. 7. 1951. D. MARIEN: Notes on the bird family Prunellidae in Southern Eurasia. – Am. Mus. Nov. **1482**: 28 pp.
- No. 8. 1951. C. VAURIE: Notes on the wrens and dippers of western Asia and India. – Am. Mus. Nov. **1485**: 19 pp.
- No. 9. 1950. D. MARIEN: Notes on some Asiatic Sturnidae (Birds). – Jour. Bomb. Nat. Hist. Soc. **49**: 471–487.
- No. 10. 1951. D. MARIEN: Notes on some pheasants from southwestern Asia, with remarks on molt. – Am. Mus. Nov. **1518**: 25 pp.
- No. 11. 1951. C. VAURIE: A study of Asiatic larks. – Bull. Am. Mus. Nat. Hist. **97**: 431–526.
- No. 12. 1951. C. VAURIE: Notes on some Asiatic swallows. – Am. Mus. Nov. **1529**: 47 pp.

KOELZ' collections were also widely used for the “*Systematic Notes on Palearctic Birds*” published by C. VAURIE (1953–58) in *American Museum Novitates* and to which reference will be found in the general list of references.

Material from KOELZ' collections was also utilized in:

BISWAMOY BISWAS: On the shrike *Lanius tephronotus* (VIGORS), with remarks on the *erythronotus* and *bicolor* groups of *Lanius schach* LINNÉ, and their hybrids. – Jour. Bomb. Nat. Hist. Soc. **49**: 444–455 (1950).

However, parts of KOELZ' collections have not yet been published and when in the following it is stated that a species has not hitherto been recorded from Afghanistan it is tacitly understood that it may have been collected by KOELZ but that the record has not yet been published.

In 1944 HUGH WHISTLER commenced the publication of an exceedingly useful contribution which brings together practically everything that has been published on the birds of Afghanistan. This work also records the collection, already mentioned, which MACONACHIE sent to the British Museum. Its title is:

HUGH WHISTLER: Materials for the ornithology of Afghanistan. – Jour. Bomb. Nat. Hist. Soc. **44**: 505–519; **45**: 61–72, 106–122, 280–302, 462–485 (1944–45).

While up to now, without exception, the exploration of the Afghan bird fauna was made by foreigners one may perhaps in the following three small

contributions see the beginning of a growing interest in Afghan bird life among the country's own scientific institutes. The author, though not a born Afghan, is professor of Biology in the Faculty of Science at the University of Kabul. This must be welcomed since very much still remains to be done before we have a reasonably good idea of the bird fauna of this extensive and interesting country. The three papers are:

- S. A. AKHTAR: Babar the Great on flamingoes. -- Jour. Bomb. Nat. Hist. Soc. **46**: 545-547 (1946).
 S. A. AKHTAR: Ab-istadeh, a breeding place of the flamingo (*Phoenicopterus ruber roseus* (PALLAS)) in Afghanistan. -- Jour. Bomb. Nat. Hist. Soc. **47**: 308-314. (1947).
 S. A. AKHTAR: Bird migration and fowling in Afghanistan. -- Jour. Bomb. Nat. Hist. Soc. **53**: 49-53 (1955).

As a supplement to the historical account the following list contains the birds which have been described from Afghanistan. The list gives references to a number of smaller contributions which have not been mentioned above, and a number of type localities are defined in such detail that they may be located on maps generally available.

- Ammoperdix griseogularis peraticus* KOELZ 1950, (= *A. g. peraticus*)¹). Am. Mus. Nov. **1452**: 1. Type locality Burchao Pass, Bend-i-Turkestan, cf. figure 2. Type in Chicago Nat. Hist. Mus.
Tetrao himalayensis bendi KOELZ 1951 (= *T. h. bendi*). Am. Mus. Nov. **1510**: 1. Type locality Safedsang, northwestern Afghanistan, cf. figure 2. Type in Chicago Nat. Hist. Mus.
Francolinus francolinus festinus KOELZ 1954 (= *F. f. bogdanovi*). Contrib. Inst. Regional Expl. **1**: 30. Type locality Girishk. Type in Am. Mus. Nat. Hist.
Pucrasia castanea GOULD 1855 (= *P. maculophya castanea*). Proc. Zool. Soc. London 1854: 99. Type locality Kafiristan (= Nuristan). Collected by GRIFFITH. Type in Brit. Mus. London.
Phasianus principalis SCLATER 1885 (= *Ph. colchicus principalis*). Proc. Zool. Soc. London 1885: 322. Type locality Bala Murghab. Collector Aitchison. Type in Brit. Mus. London.
Pterocles orientalis bangsi KOELZ 1939 (= *Pt. o. bangsi*). Proc. Biol. Soc. Washington **52**: 81. Type locality Tolokhan (= Taliqan, cf. figure 2). Type in Am. Mus. Nat. Hist.
Athene bactrianus BLYTH 1847 (= *A. noctua bactriana*). Jour. Asiatic Soc. Bengal **16**: 776. Type locality Kandahar. Collector HUTTON.
Ceryle rudis afghanistanica KOELZ 1939 (= *C. r. leucomelanura*). Proc. Biol. Soc. Washington **52**: 79. Type locality Laghman, cf. figure 2. Type in Am. Mus. Nat. Hist.
Gecinus gorii HARGITT 1887 (= *Picus squamatus flavirostris*). Ibis 1887: 74. Type locality Padda Sultan, Helmand (Seistan), cf. figure 1. Collector AITCHISON. Type in Brit. Mus. London.

¹) The names in brackets are those used in the present paper.

- Melanocorypha torquata* BLYTH 1847 (= *M. bimaculata torquata*). Jour. Asiatic Soc. Bengal **16**: 476. Type locality Afghanistan. Collector HUTTON.
- Melanocorypha maxima* GOULD 1867 (= *M. m. maxima*). Birds of Asia **4**, plate 72. Type locality Afghanistan (Error, the border of Sikkim proposed as type locality by HARTERT in Vögel paläarkt. Fauna **1**: 211).
- Hirundo rustica afghanica* KOELZ 1939 (= *H. r. rustica*). Proc. Biol. Soc. Washington **52**: 75. Type locality Baghlan, cf. figure 2. Type in Am. Mus. Nat. Hist.
- Molpastes leucogenys picru* KOELZ 1954 (= *Pycnonotus leucogenys*). Contrib. Inst. Regional Expl. **1**: 11. Type locality Laghman, cf. figure 2. Type in Am. Mus. Nat. Hist.
- Molpastes leucotis farahensis* KOELZ 1939 (= *Pycnonotus leucotis leucotis*). Proc. Biol. Soc. Washington **52**: 64. Type locality Farah. Type in Am. Mus. Nat. Hist.
- Hypocolius ampelinus orientalis* KOELZ 1939 (= *H. ampelinus*). Proc. Biol. Soc. Washington **52**: 64. Type locality Kandahar. Type in Am. Mus. Nat. Hist.
- Cinclus pallasii kargasiensis* KOELZ 1939 (= *C. p. tenuirostris*). Proc. Biol. Soc. Washington **52**: 65. Type locality Kargasi Pass, cf. figure 2. Type in Am. Mus. Nat. Hist.
- Prunella strophiatius sirotensis* KOELZ 1939 (= *P. s. jerdoni*). Proc. Biol. Soc. Washington **52**: 67. Type locality Sirotai (= Saroti, cf. figure 2). Type in Am. Mus. Nat. Hist.
- Accentor huttoni* HORSFIELD & MOORE 1854 (= *Prunella atrogularis huttoni*). Cat. Birds East Ind. Comp. Mus. **1**: 360. Type locality Simla and Afghanistan. Collector GRIFFITH. Type in Brit. Mus. London.
- Ruticilla grandis* GOULD 1850 (= *Phoenicurus erythrogaster grandis*). Proc. Zool. Soc. London **17**: 112. Type locality Afghanistan and Thibet. No type.
- Ruticilla rufogularis* MOORE 1854 (= *Phoenicurus erythronotus*). Proc. Zool. Soc. London **22**: 27. Type locality Pashat, cf. figure 1. Collector GRIFFITH. Type in Brit. Mus. London.
- Saxicola barnesi* OATES 1890 (= *Oenanthe finchii barnesi*). Fauna Brit. India, Birds **2**: 75. Type locality Baluchistan and Afghanistan westwards to Persia; restricted to Kandahar. The type, an adult male in autumn moult, collected at Kandahar on September 12, 1879, by ST. JOHN. In Brit. Mus. London.
- Oenanthe isabellina kargasi* KOELZ 1939 (= *Oe. isabellina*). Proc. Biol. Soc. Washington **52**: 66. Type locality Kargasi Pass, cf. figure 2. Type in Am. Mus. Nat. Hist.
- Turdus merula brodkorbi* KOELZ 1939 (= *T. m. intermedia*). Proc. Biol. Soc. Washington **52**: 67. Type locality Farakar (= Farkhar, cf. figure 2). Type in Am. Mus. Nat. Hist.
- Malacocercus Huttoni* BLYTH 1847 (= *Turdoides caudatus huttoni*). Jour. Asiatic Soc. Bengal **16**: 476. Type locality Kandahar. Collector HUTTON. Type in Brit. Mus. London.
- Garrulax variegatus nuristani* PALUDAN 1959. This paper p. 226. Type locality Pashki, Nuristan. Type in Zool. Mus. Copenhagen.
- Phylloscopus occipitalis kail* KOELZ 1939 (= *Ph. occipitalis*), Proc. Biol. Soc. Washington **52**: 71. Type locality Kail, cf. figure 2. Type in Am. Mus. Nat. Hist.
- Parus major decolorans* KOELZ 1939 (= *P. m. decolorans*). Proc. Biol. Soc. Washington **52**: 62. Type locality Jalalabad. Type in Am. Mus. Nat. Hist.
- Parus major meinertzhageni* KOELZ 1939 (= *P. m. bokharensis*). Proc. Biol. Soc. Washington **52**: 62. Type locality Balkh. Type in Am. Mus. Nat. Hist.
- Parus rufonuchalis blanchardi* MEINERTZHAGEN 1938 (= *P. rubidiventris rufonuchalis*). Bull. Brit. Orn. Club **58**: 95. Type locality Gardez. Collector BLANCHARD. Type in Mus. Vert. Zool. Berkely.

- Orites* (?) *leucogenys* MOORE 1855 (= *Aegithalos leucogenys*). Proc. Zool. Soc. London 1854: 139. Type locality "Woods above Balu Chughur" (at Chigha Sarai, cf. figure 1). Collector GRIFFITH. Type in Brit. Mus. London.
- Sitta hariabica* WHISTLER 1944 (= *S. europaea cashmirensis*). Jour. Bomb. Nat. Hist. Soc. **44**: 516. Type locality Byan Khel in the Hariab Valley, cf. figure 1. Collector WARDLAW-RAMSAY. Type in Brit. Mus. London.
- Sitta neumayer subcaeruleus* MEINERTZHAGEN 1938 (= *S. t. tephronota*). Bull. Brit. Orn. Club **58**: 96. Type locality Haibak. Type in Coll. MEINERTZHAGEN.
- Certhia himalayana cedricola* KOELZ 1939 (= *C. h. limes*). Proc. Biol. Soc. Washington **52**: 65. Type locality Jalalabad. Type in Am. Mus. Nat. Hist.
- Zosterops palpebrosa remota* KOELZ 1939 (= *Z. p. egregia*). Proc. Biol. Soc. Washington **52**: 76. Type locality Jalalabad. Type in Am. Mus. Nat. Hist.
- Emberiza Huttoni* BLYTH 1849 (= *E. b. buchanani*). Jour. Asiatic Soc. Bengal. **17**: 811. Type locality Afghanistan. Type in Brit. Mus. London.
- Chloris chloris smithae* KOELZ 1939 (= *Ch. ch. turkestanicus*). Proc. Biol. Soc. Washington **52**: 74. Type locality Balkh. Type in Am. Mus. Nat. Hist.
- Carduelis caniceps paropanisi* KOLLIBAY 1910 (= *C. carduelis paropanisi*). Orn. Monatsber. **18**: 148. Type locality "Narim Tal, Hindukusch, Nordafghanistan" (Error, the type locality is Naryn, Tianshan).
- Carpodacus crassirostris* BLYTH 1847 (= *Rhodopechys githaginea crassirostris*). Jour. Asiatic Soc. Bengal **16**: 476. Type locality Afghanistan, the type specimen, however, was collected at Quetta by HUTTON. It is in Brit. Mus. London.
- Erythrura synoica salimalii* MEINERTZHAGEN 1938 (= *Carpodacus synoica salimalii*). Bull. Brit. Orn. Club **58**: 95. Type locality Akrobat (= *Aq Ribat*). Type in Coll. MEINERTZHAGEN.
- Carpodacus rhodochlamys bendi* KOELZ 1949 (= *C. r. grandis*). Auk **66**: 209. Type locality Burchao Pass, Bend-i-Turkestan, cf. figure 2. Type in Chicago Nat. Hist. Mus.
- Erythrura rubicilla diabolica* KOELZ 1939 (= *Carpodacus r. diabolica*). Proc. Biol. Soc. Washington **52**: 75. Type locality Sanglech (= Sanglich, cf. figure 2). Type in Am. Mus. Nat. Hist.
- Petronia petronia intermedia* HARTERT 1901 (= *P. p. intermedia*). Nov. Zool. **8**: 324. Type locality Kashmir and Kandahar. The type is from Gilgit.
- Passer griseogularis* SHARPE 1888 (= *P. domesticus (bactrianus)*). Cat. Birds Brit. Mus. **12**: 313. Type locality Kandahar. Collector SWINHOE. The type, a freak intersex, in Brit. Mus. London.
- Passer yatii* SHARPE 1888 (= *P. moabiticus yatii*). Cat. Birds Brit. Mus. **12**: 322. Type locality between De-kamran and De-doda (Seistan), cf. figure 1. Collector AIRCHISON. Type in Brit. Mus. London.
- Montifringilla theresæ* MEINERTZHAGEN 1937 (= *M. theresæ*). Bull. Brit. Orn. Club **58**: 10. Type locality Shibar Pass. Type in Coll. Meinertzhagen.
- Sturnus nobilior* HUME 1879 (= *S. vulgaris nobilior*). Stray Feathers **8**: 175. Type locality Kandahar. Collector ST. JOHN. Type in Brit. Mus. London.
- Temenuchus pagodarum afghanorum* KOELZ 1939 (= *Sturnus pagodarum*). Proc. Biol. Soc. Washington **53**: 73. Type locality Tagau (= Tagao, a prefecture NE of Kabul, cf. figure 2). Type in Am. Mus. Nat. Hist.
- Dicrurus leucophaeus bevani* VAURIE 1949 (= *D. leucophaeus longicaudatus*). Bull. Am. Mus. Nat. Hist. **93**: 243. Type locality Khudi Khel, eastern Afghanistan, cf. figure 2. Collector KOELZ. Type in Am. Mus. Nat. Hist.

- Pica bactriana* BONAPARTE 1850 (= *P. pica bactriana*). Consp. Gen. Avium 1: 383.
Type locality Kandahar.
- Corvus sharpii* OATES 1889 (= *C. corone sharpii*). Fauna Brit. India. Birds 1: 20. Type locality Siberia, Turkestan, Afghanistan, and a portion of India. Type in Brit. Mus. London, ♂ ad., collected at Nurdan, NW Frontier Province, December 15, 1870, by J. N. JOHNSON.

III. Account of the journey; with notes on main habitats and their birds

1. Some general remarks on the geography of Afghanistan

With an area of 720,000 km². Afghanistan is well above double the size of Great Britain and Ireland combined, and the fact that its population only amounts to 12 million people tells something about the nature of the country. The greater part of the country, with Baluchistan, makes the eastern part of the Iranian plateau which is surrounded by enormous mountain ranges forming part of the Tertiary folding which extends through central and south Asia as well as Europe. From the Pamir Massif the Hindukush Range cuts southwest through northern Afghanistan, reaching a height of about 7700 m. (Tirich Mir) on the border of Afghanistan. Gradually the range assumes a more westerly course, and in the western part of the country where it continues as the Paropamisus it has also lost much height only to rise again, in northern Iran, into the impressive summits of the Elburs Mountains.

From the Pamir Massif another range, the Sulaiman Mountains, extends south and form the eastern boundary of the Iranian plateau along the Indian plains. On reaching the Arabian Sea the range bends west as border mountains along the Makran Coast and continues as the Zagros Mountains from southern Iran towards northwest. The Zagros Mountains merge with the most westerly spurs of the Elburs Mountains in the Armenian Massif thus completing the ring of mountains round the Iranian Plateau. The plateau itself is not, as the name might be thought to imply, a level tableland, on the contrary several secondary mountain ranges cross its vast area. Thus the entire central Afghanistan is occupied by ranges extending mostly in the direction NE to SW. Only the southwestern part of the country is a large expanse of level country covered by semi-deserts or deserts and with minimum elevation in the Seistan Basin, only about 500 m. above sea-level.

Thus while the greater part of Afghanistan forms part of the Iranian Plateau Afghan Turkestan, a relatively narrow stretch of land north of

Hindukush and south of the border river Oxus (Amu Darya) belongs to Turkestan proper in a geographical sense. It is largely occupied by foothills and low-lying steppes.

As regards climate Afghanistan belongs to an eastward extension of the Mediterranean region. During the winter months the southern stream of cyclones of the westerly wind belt carries with it some precipitation as snow and rain. The summer, however, is rainless due to the border mountains which prevent the humid monsoon from reaching the country, only in the border mountains do they cause some rain to fall in the Sulaiman Mountains and on the south facing slopes of Hindukush, i.e. roughly in Nuristan.

The annual precipitation, falling between January and April, rarely exceeds 50 cm. in the more elevated parts of Afghanistan while in the lower regions in north and south it ordinarily amounts to not more than 5–10 cm. (STAMP). Since two thirds of the year, including the very hot summer, are practically without rain the vegetation is exceedingly sparse and dominated by xerophiles. In south and north true deserts occur while the rest of the country is dry steppe or steppe-desert. An exception to this is Nuristan and part of the eastern border mountains where the monsoon creates favourable conditions for extensive forests of conifers and evergreen oaks.

2. *Itinerary*

The travels indicated in the chronological table below have been entered on to the map at the end of the paper. The elevations given can only be considered approximate; they were obtained from barograph readings by the author or other members of the expedition using as our fixed standard the elevation of Kabul, 1780 m. The elevations were measured at the camp which usually coincides with the geographical names given although exceptions occur, thus e.g. at Gusalek where the camp was in the valley above the village whereas at Wama it was at the river while the village is located about 400 m. further up the very steep rock wall. The distances given for journeys made by car are speedometer readings.

1947.

13.–14. xii.	Peshawar – Jalalabad – Kabul
14.–31. xii.	Kabul (1780 m.)

1948

1. i.–18. ii.	Kabul
19. ii.	Kabul – Darontah (near Jalalabad)
20.–21. ii.	Darontah

Nuristan (Pech-Parun Valley)

22. ii.–28. iii. Gusalek (1100 m.)
 31. iii.–6. v. Wama (1550 m.)
 7. v.–15. vi. Pashki (2300 m.)
 15.–28. vi. Stiewe (2600 m.)

Badakhshan (Kokcha, Warduj, and Sanglich valleys)

- 29.–30. vi. Stiewe – Weran Kotal (4400 m.) – Miyan Deh
 1.–2. vii. Miyan Deh (2560 m. Kokcha Valley)
 3.–4. vii. Kachari (2300 m.)
 4.–7. vii. Parwara – Azasaid – Iskan – Jurm
 8.–9. vii. Jurm (1390 m.)
 9.–11. vii. Faizabad (1070 m.)
 12. vii. Faizabad-Barak
 13.–14. vii. Barak – Supian (1800 m. Warduj Valley) – Zebak
 (2390 m.)
 14.–17. vii. Zebak – Sanglich (2950 m.) – Maghnaol – Miyan Deh
 – Tilli
 18.–19. vii. Tilli (2690 m. Kokcha Valley)
 20.–22. vii. Tilli – Weran Kotal – Stiewe

Nuristan

23. vii. Stiewe – Pashki
 24.–28. vii. Pashki
 29. vii.–1. viii. Pashki – Wama – Gusalek
 2.–5. viii. Gusalek
 6.–10. viii. Gusalek – Chigha-Sarai – Jalalabad – Kabul
 11. viii.–23. ix. Kabul
 24.–25. ix. Kabul – Jalalabad – Peshawar

1949

- 12.–13. i. Peshawar – Kabul
 14. i.–15. ii. Kabul

Seistan

- 16.–22. ii. Kabul – Logar – Mukur – Kandahar – Girishk – Dilaram
 – Farah (965 km.)
 23.–24. ii. Farah – Salian – Baqrabad (128 km.)
 25. ii.–18. iii. Baqrabad (520 m.) (28. i.–1. iii.: Baqrabad – Farah –
 Baqrabad)

19. iii.–20. iv. Faizabad (2.–7. iv.: Faizabad – Farah – Girishk – Faizabad)
 21. iv. Faizabad – Farah
 22. iv.–2. v. Farah (690 m.)
 3.–4. v. Farah – Girishk – Lashkari-Bazar
 5. v. Lashkari-Bazar
 6.–7. v. Lashkari-Bazar – Girishk – Kandahar – Mukur

Eastern Afghanistan

8. v. Mukur (1975 m.)
 9. v. Mukur – Ab-i-Istada (1940 m., 41 km.) – Mukur
 10. v. Mukur – Maidan – Kabul (270 km.)
 11.–22. v. Kabul
 23. v. Kabul – Logar Valley – Tera Kotal (2880 m.) – Gardez (132 km.)
 24. v. Gardez (2350 m.)
 25. v. Gardez – Saroti Kotal (2975 m., 40 km.) – Gardez
 26. v. Gardez – Tera Kotal – Wardak – Kabul (180 km.)
 27.–31. v. Kabul

Bamian I

- 1.–2. vi. Kabul – Ghorband – Shibar Kotal (2910 m.) – Doab (269 km.)
 3. vi. Doab (1550 m.)
 4.–5. vi. Bamian
 6. vi. Bamian – Nil Kotal (3380 m.) – Bamian
 7. vi. Bamian – Shibar Kotal – Kabul (244 km.)
 8. vi. Kabul

Hazarajat

- 9.–11. vi. Kabul – Maidan Valley – Unaï Kotal (3100 m.) – Panjao
 12.–17. vi. Panjao (2700 m.)
 18.–19. vi. Panjao – Maidan Valley – Kabul
 20.–23. vi. Kabul

Western Afghanistan

- 24.–27. vi. Kabul – Kandahar – Farah – Shin Dand (1110 km.)
 28.–30. vi. Shin Dand (= Sabzewar) (1210 m.)
 1. vii. Shin Dand – Herat (137 km.)

Hari Rud Valley

- 2.–7. vii. Herat (1050 m.) (6. vii.: Ardewan Kotal (1640 m., 53 km.))
 8.–9. vii. Herat – Islam Qala (880 m., 130 km.)
 10. vii. Herat
 11.–18. vii. Obbeh (the hotel 1830 m.; 112 km. from Herat)
 19.–20. vii. Kwaja Chisht (= Chisht-i-Sharif) (1640 m.; 167 km. from Herat)
 21. vii. Herat

Northern Afghanistan

22. vii. Herat – Sauzak Kotal (2500 m.) – Qala Nau (165 km.)
 23. vii. Qala Nau (950 m.)
 24. vii. Qala Nau – Miana Bam (at southern tributary to Murghab) – Bala Murghab (117 km.)
 25. vii. Bala Murghab (560 m.)
 26. vii. Bala Murghab – Chahar Shamba – Qaisar – Maimana (187 km.)
 27. vii. Maimana (920 m.)
 28. vii. Maimana – Daulatabad – Andkhui (147 km.)
 29. vii. Andkhui (440 m.)
 30. vii. Andkhui – Shibarghan – Aq Chah – Mazar-i-Sharif (239 km.)
 31. vii. Mazar-i-Sharif (470 m.)
 1. viii. Mazar-i-Sharif – Tashkurghan – Haibak (115 km.)
 2.–3. viii. Haibak (1050 m.)
 4. viii. Haibak – Paigah Kotal (1440 m.) – Pul-i-Khumri (94 km.)
 5. viii. Pul-i-Khumri – Chashma-i-Sher – Pul-i-Khumri
 6.–7. viii. Pul-i-Khumri – Doab – Kabul (430 km.)

Bamian II

5. ix. Kabul – Shibar Kotal (2910 m.) – Bamian (244 km.)
 5. ix.–18. x. Bamian (2550 m.) (16. ix. Darra-i-Shikari – 22. ix. Aq-Ribat – 28. ix. Band-i-Amir (ca. 2900 m.) 79 km. – 6. and 13. x. Darra-i-Shahidan (ca. 3000 m.)
 18. x. Bamian – Shibar Kotal – Kabul
 19. x.–12. xi. Kabul
 13.–14. xi. Kabul – Jalalabad – Peshawar

3. *Physiography; characteristic birds; bird migration*

Nuristan (Kafiristan)

During the spring and summer of 1948 the author travelled in Nuristan and Badakhshan with the botanist, cand. mag. LENNART EDELBERG. On February 19 we left cold and rainy Kabul (about 1780 m. above sea level) and drove by lorry to Darontah (500 m.), about 8 km. northwest of Jalalabad. We had to halt here for a couple of days in order to settle local formalities in Jalalabad. During this stay we made a few minor excursions in the wide valley which to a large extent is brought under cultivation. Outside the arable land the valley is very barren and the vegetation exceedingly sparse. The predominant birds were: *Galerida cristata*, *Ammomanes deserti* and *Oenanthe xanthopyrna*. Along the Kabul river we saw among other species *Ceryle rudis*, *Motacilla alba personata* and a few waders. Compared to the central highland from where we started the milder climate of this lower lying district was noticeable, and it also influenced the bird fauna which here counted *Upupa epops*, *Hirundo rustica* and *Passer domesticus*, birds which leave the more elevated parts of the country during winter.

Next we drove up through the much narrower Kunar Valley where extensive waste land dominates the picture while villages with their surrounding fields were few and far apart. At Chigha Sarai we left the Kunar Valley and proceeded west, up along the river Pech. The Kunar is bounded by wooded hill slopes on either side but not until some distance up the Pech Valley does the valley bottom reach the oak forest zone. The valley is very narrow here, and only in few places it expands so much that small plots of terraced fields could be made. We made our first halt at Gusalek, a village at the bending of the river where it changes its course from NE-SW to W-E. This village is a terminus for all wheel-borne vehicles and we camped a little distance north of the village, at 1100 m. In late February, when we were there, the bottom of the valley was snowless but all surrounding mountains still covered by snow and higher up the valley itself was impassable for a long time due to snow. We were in Gusalek until the end of March and travelled with the advancing spring up through the Pech-Parun Valley with camps at Wama (about 1500 m.), Pashki (about 2300 m.) and Stiewe (about 2600 m.).

From Gusalek up through the valley all our equipment was transported by carriers since horses were unobtainable; the ground was extremely difficult and the path impassable in many places due to slides and missing bridges so after all horses might have been no help.



Fig. 3. The village Gusalek (appr. 1100 m. altitude) where Digal falls into the river Pech. Nuristan. In the foreground terraced fields. *Quercus balout* on the hill sides. 12. iii. 48.

Round Gusalek, at the confluence of the rivers Digal and Pech (Fig. 3), the valley is relatively wide and cultivated while a short distance above the village it narrows and assumes v-shape (Fig. 4). Here the roaring river occupies the entire valley bottom while the path turns and twists on the steep hillside. Some distance above Wama the river passes between vertical rock walls but soon the valley again is v-shaped.

The *Quercus* zone

Gusalek as well as Wama fall within the *Quercus* zone the predominant species of which is the evergreen *Quercus balout* which grows on the lower part of the hillsides up to about 2000 m. In most places the trees are rather scattered without forming closed canopy (Fig. 4); in particular this is the case near the villages, furthermore the trees are here in a miserable state due to heavy browsing by the large flocks of goats to which the oak leaves form an important food item, especially during the winter; even in distant places the trees show unmistakable signs of browsing and the cutting of twigs for fodder.

When, on May 6, we left Wama we also left the oak zone but we passed it again on our way back in the first week of August. Although my observations were restricted to the early spring and the start of the breeding period



Fig. 4. The Pech Valley above Gusalek. The steep hillsides carry very open oak forest. 29. iii. 48.

I believe that the list given below contains the majority of species characteristic of the oak forest. It can be added that the very open oak wood with sparse ground flora does not create conditions for a rich and varied bird fauna.

The more important breeding birds in the oak zone were:

<i>Falco subbuteo</i> (74) ¹⁾	<i>Turdus viscivorus</i> (271)
<i>Falco tinnunculus</i> (78)	<i>Garrulax lineatus</i> (276)
<i>Streptopelia orientalis</i> (156)	<i>Phylloscopus occipitalis</i> ? (287)
<i>Psittacula himalayana</i> (161)	<i>Terpsiphone paradisi</i> (318)
<i>Strix aluco</i> (167)	<i>Parus major</i> (320)
<i>Picus squamatus</i> (186)	<i>Parus melanolophus</i> (322)
<i>Dendrocopus himalayensis</i> (188)	<i>Aegithalos leucogenys</i> (323)
<i>Dendrocopus auriceps</i> (189)	<i>Dicrurus macrocercus</i> (377)
<i>Pericrocotus brevirostris</i> (222)	<i>Garrulus lanceolatus</i> (381)
<i>Monticola cinclorhynchus</i> (255)	<i>Corvus macrorhynchos</i> (386)

The conifer zone

May 6-7 we moved our camp from Wama up to Pashki in the Parun Valley thereby reaching the conifer zone. In the bottom of the valley the

¹⁾ The figures refer to the respective numbers in the list of Afghan birds, p. 300. The appropriate numbers are also given in the systematic survey of the material collected.



Fig. 5. The Parun Valley at Pashki (appr. 2300 m.). Nuristan. In the bottom of the valley hazel copses and fields. On the slopes mixed coniferous forest.

transition between oak and conifer forest (here *Cedrus deodara*) is located at about 1800–2000 m. although individual oak trees occur even at Pashki (2300 m.).

Some distance below Pashki the nature of the valley changes. While further down it was shaped like a v and the torrent occupied almost the entire bottom it now adopts u-shape (Fig. 5) and since the river here only occupies a smaller part of the bottom space is left for arable land, irrigated meadows, poplars and hazel and willow brush. In addition to the birds associated with the river we observed the following breeding birds in the bottom of the valley at Pashki:

<i>Cuculus canorus</i> (162)	<i>Muscicapa ruficauda</i> (317)
<i>Upupa epops</i> (184)	<i>Parus major</i> (320)
<i>Phoenicurus coeruleocephalus</i> (250)	<i>Parus rubidiventris</i> (321)
<i>Phylloscopus occipitalis</i> (287)	<i>Parus melanolophus</i> (322)
<i>Muscicapa sibirica</i> (316)	<i>Emberiza cia</i> (339)

Several among these species were also common breeding birds up through the conifer zone, a fact which will be apparent from the list given below.

From Gusalek as well as from Wama excursions were made to the cedar forest above the oak zone but a more thorough exploration of the coniferous forest was not possible.



Fig. 6. The coniferous zone (*Pinus gerardiana*, *Cedrus deodara* and others) near Pashki. Nuristan. The village is visible on a rounded rock outcrop just above the bottom of the valley. 11. v. 48.

ferous forests was not made until we reached Pashki. Here they occur from the bottom of the valley up the steep mountain slopes to an elevation varying between 3000 and 3200 m. (Fig. 6). The northwest facing slopes are dominated by *Pinus excelsa*, *Abies webbiana* and *Picea morinda* while the drier southeast facing slopes carry *Cedrus deodara* and, more commonly, *Pinus gerardiana*.

While the oak forest always shows evidence of human interference, or even devastation, large areas of almost virgin conifer forest with magnificent trees are still to be found. Along the main river and still more in the vicinity of villages the forest grows more open where timber has been extracted or where burning has taken place in order to create pasturage. Even far away from the villages I came across large areas which had been burnt without apparent purpose but I was told that often great fires broke

out on the days during which the cattle was taken up to the pastures above timber line due to the habit of making fires in several places along the routes followed by the droves; these fires served the purpose of keeping away all the large beasts of prey.

Owing to the short time available and the time-consuming collecting and preparation I did not succeed in obtaining a material which enabled me to analyze the preference of individual species for certain types of conifer forest but I was under the impression that the different forest types were inhabited by the same species although with one striking exception, namely that *Emberiza stewarti* occurred largely in the *Pinus gerardiana* forest where one never saw *Emberiza cia*; this latter was very abundant in the *Abies* and *Picea* forests, especially in glades.

In the conifer zone in general the following species were recorded:

<i>Accipiter nisus</i> (48)	<i>Regulus regulus</i> (288)
<i>Falco tinnunculus</i> (78)	<i>Muscicapa sibirica</i> (316)
<i>Lophophorus impejanus</i> (84)	<i>Muscicapa ruficauda</i> (317)
<i>Pucrasia macrolopha</i> (85)	<i>Parus rubidiventris</i> (321)
<i>Streptopelia orientalis</i> (156)	<i>Parus melanolophus</i> (322)
<i>Dendrocopos himalayensis</i> (188)	<i>Sitta europaea</i> (325)
<i>Dendrocopos auriceps</i> (189)	<i>Sitta leucopsis</i> (326)
<i>Pericrocotus brevirostris</i> (222)	<i>Certhia himalayana</i> (329)
<i>Phoenicurus coeruleocephalus</i> (250)	<i>Emberiza stewarti</i> (336)
<i>Monticola cinclorhynchus</i> (255)	<i>Emberiza cia</i> (339)
<i>Turdus viscivorus</i> (271)	<i>Carpodacus erythrinus</i> (355)
<i>Phylloscopus tytleri</i> (280)	<i>Carpodacus rhodochlamys</i> (357)
<i>Phylloscopus subviridis</i> (284)	<i>Nucifraga caryocatactes</i> (383)
<i>Phylloscopus occipitalis</i> (287)	<i>Corvus macrorhynchos</i> (386)

Several of the species mentioned were found in particular abundance in the glades. Where these had been invaded by *Viburnum*, *Rosa*, *Lonicera* and other bushes the following additional species occurred:

<i>Alectoris graeca</i> (81)	<i>Garrulax variegatus</i> (277)
<i>Cuculus canorus</i> (162)	<i>Sylvia althaea</i> (307)
<i>Luscinia brunnea</i> (243)	<i>Serinus pusillus</i> (344)

The *Juniperus* zone

Above the conifer forest at Pashki one enters the *Juniperus* zone (Fig. 7). It consists of scattered bushes of *Juniperus polycarpus* of pyramidal shape and often attaining considerable height but the whole belt of *Juniperus* only occupies at most 200 m. Another species, *Juniperus communis* var. *montana*, is interspersed between *J. polycarpus* but it extends a good deal higher up the hillsides, and being a creeping cushion plant its growth form



Fig. 7. *Juniperus* zone at 3100–3200 m., above Pashki, Nuristan. 25. vii. 48.

is also different. On several occasions I visited this *Juniperus* zone which harboured a very poor bird life. It is best characterized as the fauna of the conifer forest and glades in extreme dilution. The only species I came across among the Junipers and which had not been seen in other places during the breeding period was the wren. The following list gives the species recorded from the *Juniperus* zone:

<i>Alectoris graeca</i> (84)	<i>Emberiza stewarti</i> (336)
<i>Cuculus canorus</i> (162)	<i>Emberiza cia</i> (339)
<i>Troglodytes troglodytes</i> (235)	<i>Serinus pusillus</i> (344)
<i>Phylloscopus tytleri</i> (280)	

At about the same altitude (ca. 3000 m.) also *Phylloscopus griseolus* (281) lived; it inhabited the steep hill sides strewn with boulders and with a sparse vegetation consisting of *Viburnum* and *Rosa*.

The alpine zone

Above the *Juniperus* zone the xerophilous vegetation grows very scarce and large stretches occur where the rocks seem to be entirely without vegetation. In such places the animal life was exceedingly poor in species as well as in individuals. Above Pashki the following species were recorded in this zone:

Tetraogallus himalayensis (80)
Upupa epops (184)
Monticola solitarius (254)

Oenanthe pleschanka (263)
Montifringilla nivalis (369)
Pyrrhocorax graculus (380)

On June 15 we moved our camp from Pashki to Stiewe, the last village in the valley. During this stretch one is taken above the forest zone which in the upper, dry part of the valley gives in at lower altitudes than on the hillsides further down the valley. At Kustaki (2375 m.) only scattered *Pinus gerardiana* and a few *Picea* remain on the slopes and a short distance further up the valley they disappear altogether leaving the slopes bare of trees and at most carrying an open vegetation of dry and spiny herbs.

At Stiewe (ca. 2600 m.) (Fig. 8) the bottom of the valley is fairly broad, and along the river and on the irrigated slopes copses of willow, birch, walnut and poplar occur. They also penetrate into the lower part of the small secondary valleys and even up to 3600 m. altitude brush of stunted willows is found along the brooks.

The following birds were found breeding in the main valley around Stiewe, disregarding those associated with the river:

Cuculus canorus (162)

Upupa epops (184)

Luscinia pectoralis (244)

Oenanthe pleschanka (263)

Garrulax variegatus (277)

Sylvia althaea (307)

Parus major (320)

Emberiza cia (339)

Carduelis carduelis (346)

Carpodacus erythrinus (355)

Pica pica ? (382)

Corvus macrorhynchus (386)

Several of these species also penetrate some distance up the tributary valleys with a reasonably rich vegetation of bushes. Higher up where the bottom of the valley and the slopes were strewn with rocks and where low scrub, largely willow, had become rare I saw:

Prunella collaris (236)

Prunella strophiate (238)

Phoenicurus ochruros (246)

Monticola solitarius (254)

Phylloscopus griseolus (281)

while on the *Artemisia* covered slopes I found:

Alectoris graeca (81)

Serinus pusillus (344)

Leucosticte nemoricola (349)

The bird fauna associated with rock walls

Round Stiewe a number of species occurred which place their nests on rock ledges and in crevices or in places similarly difficult of access, and which, furthermore, often search for food at considerable distance from the nesting site. Although the nests were rarely found the presence of the birds in the latter half of June undoubtedly indicates that they are birds which



Fig. 8. Valley bottom near Stiewe, appr. 2600 m. Nuristan. An irrigation canal causes the sharp boundary on the hillside. 24. vi. 48.

breed locally perhaps with the exception of the large birds of prey which may be stragglers from far away. To these birds belong:

Gyps fulvus (61)

Gypaëtus barbatus (64)

Columba leuconota (149)

Columba livia (151)

Apus apus (175)

Hirundo rupestris (203)

Delichon urbica (209)

Pyrrhocorax pyrrhocorax (379)

Pyrrhocorax graculus (380)

Some of these species had already been observed further down the valley as will be seen from the notes on individual species given elsewhere.

It is pointed out here that whilst the two pigeons were more abundant at Pashki than at Stiewe the two choughs were more abundant in the latter place.

Birds of the river system

The birds associated with the main river and the mountain brooks between Gusalek and the pass across the chief mountain range have not yet been mentioned. Their distribution on types of water courses is commented on under each species hence only a general list is given here. The birds which found their food or nesting sites, or both, along the water courses were the following:

Tringa hypoleucos (119)
Ceryle rudis (177)
Motacilla cinerea (220)
Motacilla alba (221)
Cinclus pallasii (234)

Chaimarrornis leucocephalus (251)
Rhyacornis fuliginosus (252)
Myiophoneus caeruleus (272)
Enicurus scouleri (273)
Enicurus maculatus (274)

The birds of the villages

In the villages the following birds occurred:

Passer montanus (366)

Sturnus tristis (374)

and in the Pech Valley they only occurred up to Gusalek, while higher up the valley no birds seemed to be particularly associated with the village.

Spring migration through Central Nuristan

During February and March the snowless valley round Gusalek showed some concentration of birds which had come down from the central parts of the mountains where winter still reigned. In particular this was true of birds associated with water courses but to some extent also of *Columba livia* and *C. rupestris*.

As far as the true migrants are concerned they might reasonably be assumed to avoid Central Afghanistan since during the spring all valleys here lead up to snow covered heights with passes at well above 4000 m. altitude. In case the migrating birds followed a course along the valleys a noticeable spring migration could hardly be expected along the Pech-Parun Valley since the southern entrance to this valley is barred by the Kashmund Mountains, a gigantic snow covered massif towering up in front of migrating birds coming up the Kunar Valley. It would therefore seem more likely that migrating birds followed the Kunar Valley to proceed northwards through the Kamdesh Valley or through Chitral. Actually, my observations confirm that some species migrate fairly extensively through central Nuristan, a fact which may support the assumption that migration takes place on a broad front. Whether a concentration takes place at the far end, through the passes leading over the main mountain range, is unknown.

The more abundant species among the migrating birds observed in the Pech-Parun Valley were:

Apus apus (175)

Hirundo rupestris (203)

Hirundo daurica (208)

Delichon urbica (209)

Anthus trivialis sibiricus (213)

Motacilla alba personata (221)

Phylloscopus inornatus humei (283)

Phylloscopus trochiloides viridanus
(285)

Sturnus vulgaris pollaratskyi (371)

However, to this list should be added a large number of species which were only observed a few times but which, nevertheless, obviously migrate through central Nuristan:

<i>Anas crecca</i> (29)	<i>Oenanthe xanthopyrimna chrysopygia</i> (261)
<i>Anas strepera</i> (34)	<i>Oenanthe picata</i> ("opistholeuca" et "capistrata") (264)
<i>Pandion haliaëtus</i> (70)	<i>Turdus ruficollis atrogularis</i> (270)
<i>Porzana pusilla</i> (93)	<i>Phylloscopus collybita tristis</i> (278)
<i>Tringa ochropus</i> (117)	<i>Locustella naevia straminea</i> (291)
<i>Jynx torquilla</i> (185)	<i>Sylvia nisoria</i> (302)
<i>Hirundo rustica</i> (205)	<i>Ficedula parva</i> (313)
<i>Lanius collurio isabellina</i> (226)	<i>Emberiza leucocephala</i> (333)
<i>Prunella atrogularis huttoni</i> (239)	
<i>Phoenicurus erythronotus</i> (249)	
<i>Saxicola torquata maura</i> (256)	

Ducks and waders were strikingly rare among the migrating birds. This can perhaps be explained through the fact that to these birds the roaring and churning main river and the smaller mountain streams must offer remote chances of finding food or a resting place. Therefore, even in the case that a considerable migration took place over the territory it is not likely to show up very much.

Still more striking is the fact that birds of prey were practically not seen migrating. If, however, the birds of prey largely migrate along the mountain ridges or along slopes above timber line in order to take advantage of the upwinds and the more easily exploited open hunting ground the migration will not be noticed much by an observer travelling along the bottom of the valley or on the wooded part of the hill sides; on the other hand I feel that, had there been a migration of birds of prey, it could hardly have escaped my attention so completely.

Badakhshan

Towards the end of June we considered it impossible to find new and profitable fields in the Pech-Parun Valley and accordingly we decided to cross the main mountain range in order to spend the month of July on the north facing slopes of Hindukush exploring its flora and fauna. Horses being unobtainable in Nuristan we sent our Afghan cook across the ridge to the northern slope to procure some there. He managed to get hold of six which enabled us to cross the Weran Pass on June 29. During our way up we had to cross extensive snow patches and the pass itself, at 4400 m. altitude, was full of snow, in addition heavy snowfall overtook us. Even when we travelled back on July 22 much snow was still left and on the



Fig. 9. The Kokcha Valley a little above Tilli (appr. 2700 m.). Badakhshan. In the foreground and on the slopes xerophiles. In the middle distance river copses formed by willow, barberry and *Hippophaës* sp. and inhabited by *Luscinia svecica*, *Phylloscopus inornatus* and *Passer hispaniolensis*. On the left a large cone of erosion products. 19. vii. 48.

south facing slope patches of snow occurred right down to 3500 m. and snow from avalanches down to 3100 m. The snow masses disappear again during the summer although perpetual snow occurs but not to the extent indicated on most maps; we found a tributary valley north of the pass, at an altitude of about 4000 m., which was occupied by an extensive glacier.

From the pass we proceeded down through the Weran Valley to Nau and, along the Munjan River (the lower reaches of which are called Kokcha), to Jurm and Faizabad. From here we travelled back through the Warduj Valley to Zebak, through the Sanglich Valley and through the Munjan Pass (3640 m.). (This name is associated with other passes also). From the height we descended into the Kokcha Valley, calling by this name the entire valley from Nau downwards.

Everywhere the countryside reminded us that we had left the rather rainy Nuristan and come to a province with much lower rainfall. In the upper valleys vast scree cones extend from far up the mountain slopes to well into the bottom of the valley (Fig. 9) while the vegetation is sparse throughout. In odd places along the river scrub, tall enough to hide a man, occurs, the chief species being willow, poplar, barberry and *Hippophaës* sp.,



Fig. 10. In the left foreground the river Kokcha. The town Faizabad (1070 m.) is hidden behind trees. The surrounding hillsides are partly cultivated. Characteristic birds: *Galerida cristata*, *Anthus campestris*, *Oenanthe pleschanka*, *Oenanthe picata*. Badakhshan. 11. vii. 48.

in other places we found areas with an open grass cover but otherwise the poor *Artemisia* steppe has conquered the areas of valley and hillside where plants can grow at all. At about 1900 m. altitude at Robot in the Kokcha Valley a little *Juniperus polycarpus* occurs on the hill slopes, the bushes are scattered and, as far as it could be made out from the valley, they do not form continuous scrub. In the upper part of the Warduj Valley a similar growth occurs. Proceeding down the valley the contours of the surrounding mountains grew more rounded and smooth and at Faizabad (Fig. 10) the surrounding hills, especially the north facing side, supported extensive plots of arable land. At Faizabad we also came across extensive areas covered by grass, but they were brown and scorched by sun and drought when we visited the region in July.

While travelling in Badakhshan I identified 75 species of birds which, with two or three exceptions, can be considered true breeding birds of this district. A special list of these species has probably limited interest since they have all been treated in the systematic part but a few remarks may be appropriate.

Among the alpine birds I had looked in vain for *Eremophila alpestris* in

Nuristan but managed to find it in a single place north of the chief mountain ridge. *Montifringilla nivalis* appeared to be equally scarce in the north and the south. *Columba rupestris* was observed as a winter visitor at Gusalék, in Nuristan I searched in vain for it in the high alpine zone during the breeding season but in Badakhshan the species was observed on several occasions. The alpine fauna of Badakhshan comprised another two species which were not seen in Nuristan: *Leucosticte brandti* and *Prunella fulvescens*.

The more quiet rivers, often flowing through wider valleys and often with grassy banks created breeding conditions for *Charadrius dubius* and *Motacilla citreola* while the scrubs along the rivers harboured species not seen in Nuristan during the breeding season: *Luscinia svecica*, *Phylloscopus inornatus* and *Passer hispaniolensis*.

No breeding larks were observed in Nuristan while four species occurred in Badakhshan: *Eremophila alpestris*, *Melanocorypha bimaculata*, *Galerida cristata* and *Alauda gulgula*. The more steppe-like character of the province also determined the occurrence of *Coturnix coturnix*, *Anthus campestris* and *Oenanthe xanthopyrna* while the increasing abundance of *Passer domesticus* and *P. montanus* is attributed to the more extensive areas of arable land and the improved animal husbandry.

As for crows it was striking to come across a familiar bird, *Corvus corone*, while in Nuristan it was replaced by *Corvus megarhynchus*; the two species seem identical to a casual observer but their voices are slightly different. *Pica pica* which made its first appearance in the upper parts of the valleys south of the chief mountain range was now more abundant and had its share in stressing the palearctic character of the fauna.

Eastern Afghanistan

The valleys between Kabul and Kandahar

During the first six months of 1949 I often travelled between Kabul (1770 m.) and Kandahar (1030 m.) but collecting was done in a few places only. During the greater part of its course the main road between the two towns goes through usually very wide valleys running NE-SW. At an altitude of about 2400 m. the traveller crosses, at Ghazni, the watershed between the rivers running north and south. By nature these valleys are barren and with a sparse vegetation of dry and thorny steppe plants (Fig. 11). To some extent this *Artemisia* community also occupies the lower part of the surrounding hill slopes which, otherwise, seem quite devoid of vegetation and covered by erosion products ranging from gravel to boulders

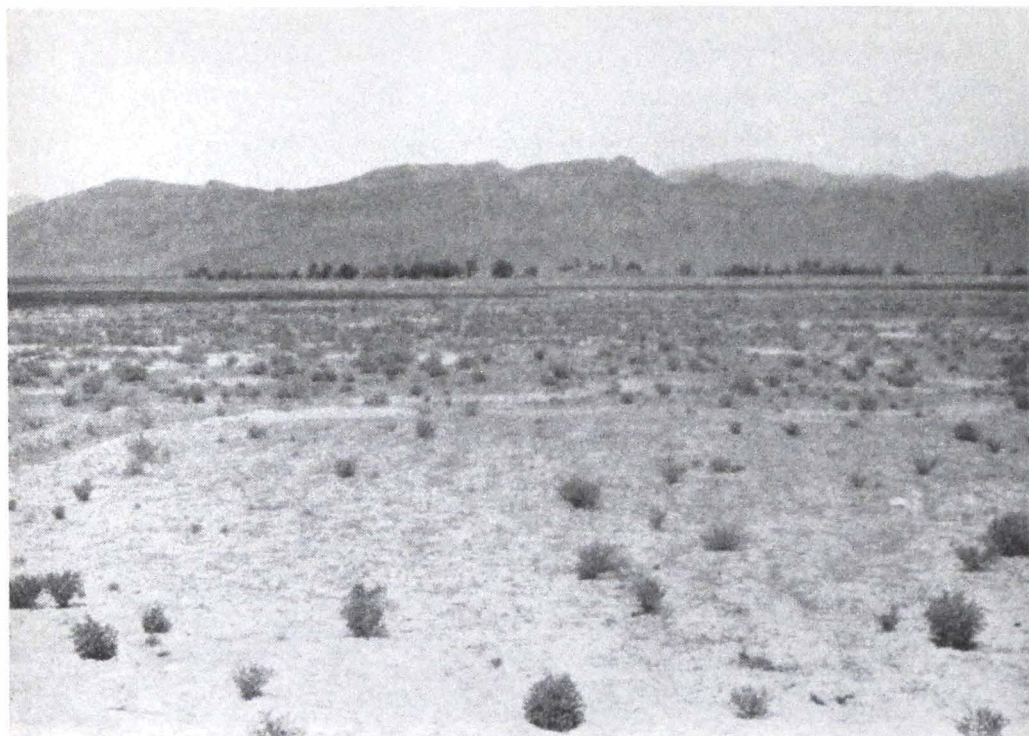


Fig. 11. Scenery near Mukur (1970 m.) Eastern Afghanistan. In the foreground abandoned fields recolonized by steppe vegetation. Three *Calandrella* species were collected here: *rufescens*, *acutirostris* and *cinerea*. 8. v. 49.

while in some places the naked rock walls dominate. In places the bleakness gives way to villages surrounded by arable land created by means of irrigation. Here and there the river is bordered by willow, poplar or tamarisk.

Irrespective of whether they breed here or in the surrounding mountains the following birds are characteristic of the steppe community of these valleys:

<i>Gyps fulvus</i> (61)	<i>Merops apiaster</i> (180)
<i>Neophron percnopterus</i> (63)	<i>Upupa epops</i> (184)
<i>Ammoperdix griseogularis</i> (79)	<i>Galerida cristata</i> (198)
<i>Pterocles orientalis</i> (147)	<i>Oenanthe isabellina</i> (267)
<i>Athene noctua</i> (166)	<i>Corvus corax</i> (389)

The cultivated land contributes the following additions to this list:

<i>Coturnix coturnix</i> (83)	<i>Emberiza brunniceps</i> (335)
<i>Calandrella rufescens</i> (192)	<i>Passer domesticus</i> (364)
<i>Calandrella acutirostris</i> (194)	<i>Passer montanus</i> (366)
<i>Hirundo rustica</i> (205)	<i>Pica pica</i> (382)
<i>Lanius schach</i> (229)	<i>Corvus corone</i> (387)

Ab-i-Istada

On May 9, 1949 we made a trip from Mukur to Ab-i-Istada, a salt lake at 1940 m. altitude and about 40 km. SE of Mukur. After having followed the main road to Qala Khan (presumably the same as Karauddin (AKHTAR, 1947)) at the southern border of the lake we drove 14 km. along the south-eastern border. The lake (Fig. 12) is closely surrounded by steppe while the lake border is covered by a white layer of salt. Neither trees nor scrub was within sight and also marshy areas were absent. Using the kayak I paid a visit to a small island some distance out, undoubtedly identical with Akhtar's "Iland II". The depth of the water did not exceed one metre but the bottom was all mud, and the water was very salty to the taste. At the lake the following birds were seen, as to their status the reader is referred to the systematic section:

<i>Phoenicopterus ruber</i> (18)	<i>Recurvirostra avosetta</i> (130)
<i>Tadorna tadorna</i> (26)	<i>Burhinus oedicephalus</i> (132)
<i>Charadrius alexandrinus</i> (109)	<i>Larus genei</i> (139)
<i>Tringa hypoleucos</i> (119)	<i>Gelochelidon nilotica</i> (141)
<i>Crocethia alba</i> (124)	<i>Sterna hirundo</i> (143)
<i>Himantopus himantopus</i> (129)	

Gardez

During the days May 23–26, 1949 we made an excursion from Kabul to the Gardez district. We drove down the much cultivated Logar Valley to Pul Alam (Hisarik) where the road to Gardez branches off. At first it ascends steadily through a vast steppe area while higher up it crosses a mountain range through Tera Kotal (2880 m.). Near the pass scattered *Juniperus polycarpus* occur. On having climbed the mountain range the road descends into a system of valleys and leads to Gardez (2350 m.) which is surrounded by a plain. The vegetation and bird fauna of this district corresponds to the situation along the Kabul-Kandahar main road, and just like the latter district it is surrounded by barren desert mountains except in the southeast where a wooded ridge is visible.

On May 25 we drove through Usman Khel to Saroti Kotal 40 km. east of Gardez where the barometer read 2975 m. altitude. The hillsides were covered by cedar woods with some interspersions of *Pinus gerardiana*. Towards the south, at some distance below the pass, *Quercus balout* is supposed to grow too. Much to our regret we had to content ourselves with a magnificent view of the promised land Khost; for various reasons we had to change our plans and to leave behind us the wooded tracts and their

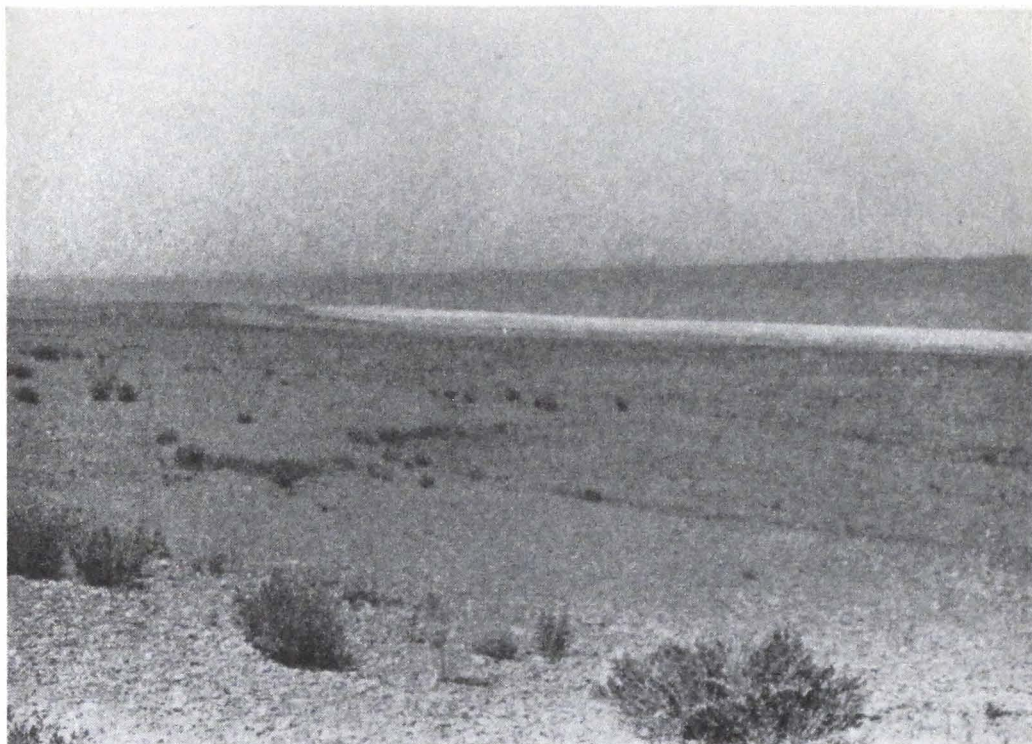


Fig. 12. The lake border at Ab-i-Istada (1940 m.). Eastern Afghanistan. The white band is salt incrustations. 9. v. 49.

unknown bird fauna. During our short stay in the pass and in the woods immediately below we saw:

Gypaëtus barbatus (64)

Cuculus canorus (162)

Motacilla cinerea (220)

Phoenicurus ochruros (246)

Muscicapa ruficauda (317)

Parus melanolophus (322)

Emberiza cia (339)

Serinus pusillus (344)

Southern Afghanistan

The Kandahar (1030 m.) – Farah (690 m.) area.

On leaving, in a westerly direction, the valley in which Kandahar is situated the traveller reaches the extensive plains which occupy a considerable part of southwestern Afghanistan. The soil consists of fine sand and clay more or less profusely covered by stones of the size used for road-metal (Fig. 13); in places one drives through stretches reminding one of stony desert while in others one is taken across plane and smooth clay surfaces. On a larger scale the surface of the plain may be slightly rolling but in most places it is plain. The vegetation is exceedingly poor. When we drove through this district, on February 20–21, 1949, the small hollows were thinly covered by grass, just sufficiently dense to add a greenish

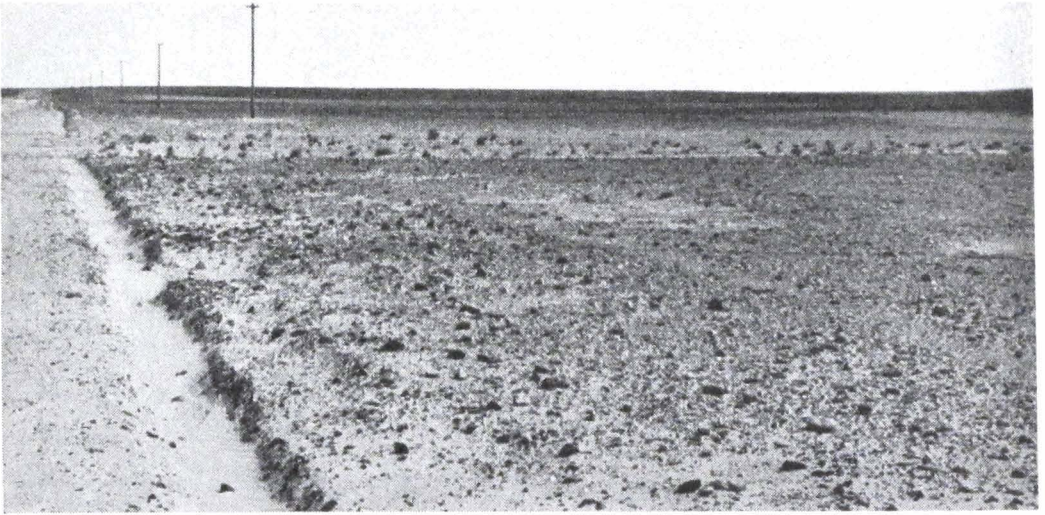


Fig. 13. Stony desert west of Girishk (appr. 900 m.). Southern Afghanistan. 20. ii. 49.

tinge to the scenery when viewed from a distance. Apart from this the vegetation consisted of scattered dry and thorny plants rarely exceeding a few decimetres in height. Here and there, in the many dried-up river beds, one came across patches of open brush half the height of a man or less. West of Dilaram the vegetation grows richer and one may come across larger stretches with bushy vegetation as shown in figure 14. When we passed the district again in the beginning of May the grass had already assumed a brownish colour and towards the end of June the remainder of the vegetation had also been scorched.

This semi-desert harbours few breeding birds, species as well as individuals. My personal experience in this district is limited to some excursions through it, we did not stay for longer time but to judge from observations made in the first part of May the following species would seem to be characteristic of the district:

Cursorius cursor (133)

Pterocles coronatus (148)

Ammomanes deserti (190)

Alaemon alaudipes (191)

Galerida cristata (198)

Oenanthe isabellina (267)

It is pointed out, however, that *Galerida cristata* is absent from the most barren places and largely restricted to the vicinity of the few stretches of

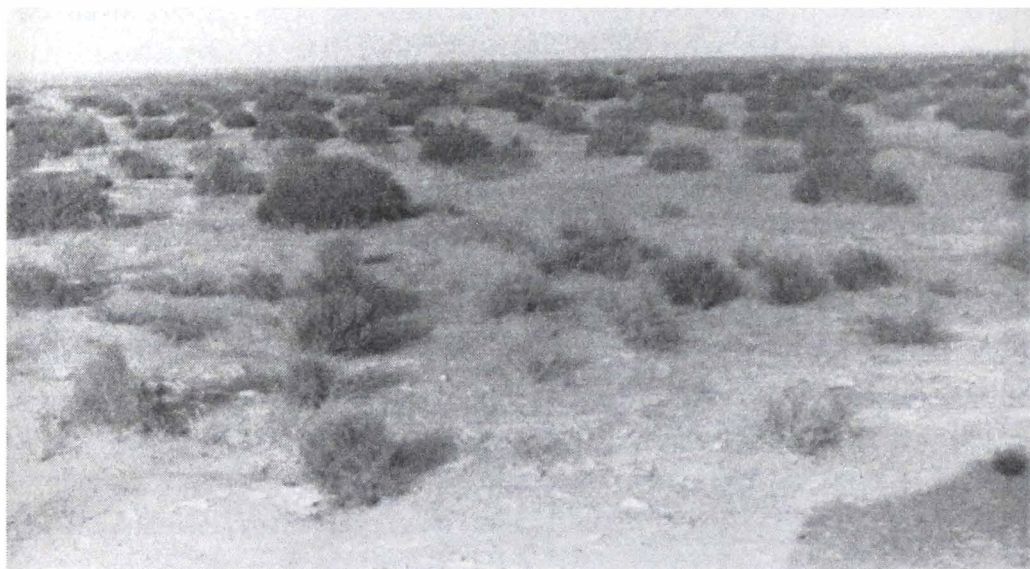


Fig. 14. Small steppe area with low bushes West of Dilaram (appr. 900 m.).
Southern Afghanistan. 27. vi. 49.

cultivated land. Of the remaining species only few individuals were seen and *Ammomanes* only among the foot hills between Farah and Dilaram.

The narrow belts of brush along the permanent rivers and the cultivated areas harbour, quite naturally, a much richer bird fauna. The majority of species occurring here are associated with cultivated areas in most parts of the country, hence it seems unnecessary to list them here. However, it is worth mentioning that our first acquaintance with the two lowland species

Merops superciliosus (181)

Saxicola caprata (257)

was made here, and also that the two following species which only occur in the southern provinces of the country were first seen here:

Pycnonotus leucotis (224)

Turdoides caudatus (275)

Seistan

The steppes south of Farah along the road to Juwain are no less barren than the stretch between this town and Kandahar, in places it must be characterized as genuine stone desert. About 80 km. south of Farah one drives down an ancient lake bank into the Seistan Basin the altitude of which is about 500 m.

On February 23, 1949 we arrived at Salian south of Juwain where we left the main road and drove westwards to the village Baqrabad standing on the river Farah-rud about 8 km. from where it falls into Hamun-i-Sabari. We stayed in Baqrabad until March 19 when we had to move to the village Faizabad, a few kilometres higher up the river. Apart from two short interruptions the time until April 21 was spent in this district. Our observations would have benefitted from another fortnight's stay but I had an attack of fever which proved to be malaria and we were forced to retreat to Farah from where we could continue our work already on May 3 but by this time other tasks than the Seistan exploration had to be carried out.

Our research field in Seistan was dotted with extensive ruins of towns and castles which contrasted sharply with the small present-day villages, their miserable mudbuilt huts and the primitive farming. The flourishing culture which once made Seistan a rich and thriving province was suddenly wiped out when, in the 14th century, Timur's armies swept over it; the lack of vigour—and of men—prevented it from ever recovering again. A climatic factor may have contributed to the decline of the Seistan culture, the later centuries may have witnessed a climatic change which led to the progressive disappearance of water from several lake basins in Central Asia. During our travels we had many an opportunity to realize the disastrous importance of droughts and we were told that the preceding three years had been practically without rain; this by itself may not be fatal since under all circumstances the rainfall in Seistan is negligible, far more serious was the fact that at the same time the river supplied very little water or, later in the year, nothing at all, thus endangering the irrigation. In consequence of this everything had dried up, and people fled the district to lead a miserable life in neighbouring towns. The 300 households of Baqrabad had already dwindled to a mere thirty. Fortunately rain appeared again in 1949 and in the river the water rose so as to flood part of the village and the surrounding land.

However, we had also plenty of evidence that the human race itself contributed much to the deterioration. G. P. TATE who travelled in Seistan in the beginning of this century says in his account (1910–12: 119) "... the last 6 miles of the Farah Rud is ... fringed with a growth of poplar, willow, and tamarisk; the long reaches of clear, still water set in a mass of foliage, combined with the width of the river, appear all the more beautiful by commonplace nature of the surrounding country...". Of all this luxuriance few and miserable remains were left when we visited the district, brush of stunted tamarisk which could hardly hide a man accompanied the river on its last short stretch. The larger trees went to

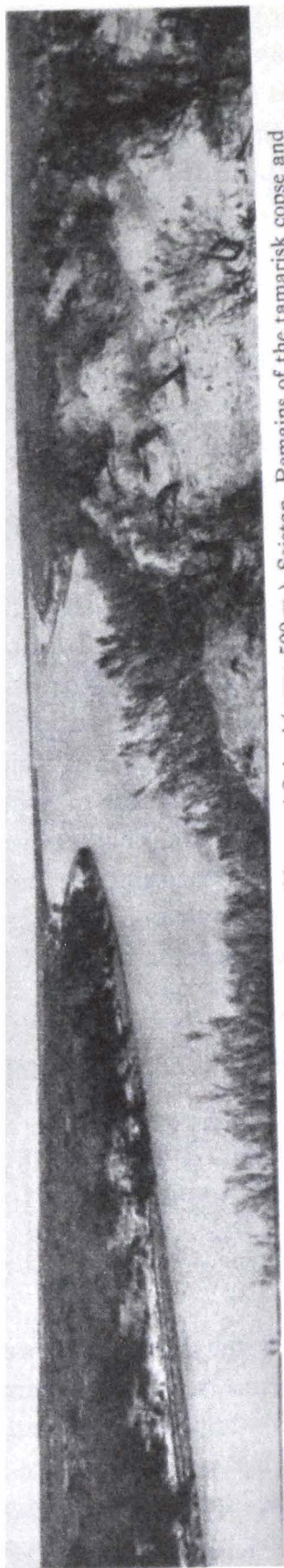


Fig. 15. Upstream view of Farah-rud where it falls into Hamun-i-Sabari (appr. 500 m.). Seistan. Remains of the tamarisk copse and dune formation are visible. 30. iii. 49.

Juwain and other towns to serve as building material and the poor remains are bound to disappear as fuel, succumb to wind erosion or become buried under sand dunes (Fig. 15).

This was our first disappointment, and the next turned up when we reached the Hamun: the extensive Seistan reed-beds had disappeared and we were facing a one kilometre wide, flat and clayey lake border. Reed-beds were probably still present further south, on Iranian territory, for now and then we saw columns of smoke in this direction which no doubt indicated that reed was being burnt. Later I found a small area with re-generating reed north of the outlet of the river but it was heavily grazed by cattle such that practically nothing was left of the reed-bed of the previous year; this was the situation from the Iranian frontier to the north-eastern corner of the Hamun.

In the vicinity of Farah-rud the steppe is more varied than the steppe areas we had seen in other parts of southern Afghanistan. The low lying stretches are dominated by a species of *Salicornia* while a species of *Prosopis* occupies the higher ground and camelthorn the extensive abandoned fields. In the steppe one also comes across areas with scattered dunes up to a couple of metres high; the dune formation starts around low bushes of tamarisk, the roots and branches of which stabilize the dune (the tamarisk scrub mentioned earlier consists of another species).

Migrating birds now and then enlivened the steppe but otherwise the bird fauna was very poor, and the presence of different types of steppe caused no apparent increase of variation. My personal experience was that only two species were characteristic of the genuine steppe, namely:

Alaemon alaudipes (191)

Galerida cristata (198)

The tamarisk scrub harboured the following residents:

Fringilla monticola (82)

Passer moabiticus (368)

Turdoides caudatus (275)

Finally, the villages and ruins provided breeding places for:

Athene noctua (166)

Passer domesticus (364)

Hirundo rustica (205)

Passer montanus (366)

In order to reach the Hamun we were forced to drive about 10 km. through roadless steppe, a rather cruel treatment of the car which already had a leaky radiator—trips to Farah and to Girishk to have it repaired did not prevent it from leaking again before I came back. Thus we had to give up our studies at the Hamun but judging from what we had already seen continued exploration seemed little promising. Most of the birds we saw

were undoubtedly wintering or migrating birds among which the more important were:

<i>Pelecanus onocrotalus</i> (3)	<i>Anas crecca</i> (29)
<i>Anser anser</i> (22)	<i>Anas acuta</i> (31)
<i>Tadorna tadorna</i> (25)	<i>Anas penelope</i> (33)
<i>Anas platyrhynchos</i> (27)	<i>Anas clypeata</i> (35)

Spring migration at the Lower Farah-rud

Since we left Seistan rather early in the year my observations can hardly be expected to provide a complete picture of the spring migration through the province since the latest migrants are missing. Although large concentrations of migrating birds were never seen we got the impression that for some species at least the migratory activity showed a maximum lasting for a very short period. Migration of the following species was observed:

<i>Grus grus</i> (87)	<i>Luscinia svecica pallidogularis</i> (242)
<i>Charadrius dubius</i> (108)	<i>Oenanthe pleschanka</i> (263)
<i>Charadrius alexandrinus</i> (109)	<i>Oenanthe picata</i> (« <i>picata</i> ») (264)
<i>Tringa ochropus</i> (117)	<i>Oenanthe deserti atrogularis et ore-</i> <i>ophila</i> (266)
<i>Cursorius cursor</i> (133)	<i>Phylloscopus collybita fulvescens</i> (278)
<i>Pterocles orientalis</i> (147)	<i>Hippolais caligata rama</i> (301)
<i>Apus apus</i> (175)	<i>Sylvia curruca blythi et halimodendri</i> (305)
<i>Merops apiaster</i> (180)	<i>Sylvia nana</i> (308)
<i>Upupa epops</i> (184)	<i>Ficedula parva</i> (313)
<i>Calandrella cinerea longipennis</i> (193)	<i>Remiz pendulinus</i> (324)
<i>Riparia riparia diluta</i> (201)	<i>Passer domesticus</i> (364)
<i>Hirundo rustica</i> (205)	<i>Passer hispaniolensis transcaspicus</i> (365)
<i>Delichon urbica</i> (209)	
<i>Motacilla alba dukhunensis</i> (221)	
<i>Lanius collurio isabellina</i> (226)	

As to the course and sequence of the migration reference is made to the notes on the individual species in the systematic part where also a few other species are mentioned which were only observed once or a few times. A total of 91 species were recorded in Seistan.

Western Afghanistan

Shin Dand

On June 27, 1949 we returned to Farah and without delay proceeded north to Shin Dand (also called Sabzewar, altitude appr. 1200 m.) where we collected on June 28–30. We left Shin Dand and continued north to

Herat. The road between Farah and Herat traverses wide alluvial valleys and narrow stony ones in quick succession. Between Shin Dand and Herat the traveller must negotiate a few low ridges which nowhere exceed 1500–1800 m. altitude. The vegetation is sparse throughout, and the surrounding hills seem quite barren. In spring an open grass cover may occur here and there but at least when we travelled through the district everything was scorched. Apart from Shin Dand and the northern vicinity of Farah the cultivated areas were few and far between. Along our route we saw the following species which are characteristic of the virgin steppe or barren hillsides:

<i>Pterocles alchata</i> (145)	<i>Calandrella acutirostris</i> (194)
<i>Pterocles orientalis</i> (147)	<i>Galerida cristata</i> (198)
<i>Merops apiaster</i> (180)	<i>Oenanthe picata</i> (264)
<i>Upupa epops</i> (184)	<i>Oenanthe isabellina</i> (267)
<i>Ammomanes deserti</i> (190)	<i>Rhodopechys githaginea</i> (353)

Shin Dand forms part of a vast plain extending east and west and covering an area large enough to make the surrounding mountain ranges barely discernible (Fig. 16). Dotted all over this plain are small villages which keep the bulk of the area under plough. In late June, when we were there, all crops had been harvested a long time ago and the fertile plain seemed just as dreary as the surrounding mountains although some variation was provided by the village trees and the dry meadows, near the river Adraskan, and by some ditches grown with reed-mace (*Typha angustifolia*). We recorded 27 species of birds among which the following, being characteristic of this cultivated area with villages, poplar groves and a river, deserve mentioning:

<i>Coturnix coturnix</i> (83)	<i>Alauda gulgula</i> (200)
<i>Charadrius dubius</i> (108)	<i>Hirundo rustica</i> (205)
<i>Streptopelia decaocto</i> (157)	<i>Saxicola caprata</i> (257)
<i>Streptopelia senegalensis</i> (160)	<i>Acrocephalus stentoreus</i> (294)
<i>Cuculus canorus</i> (162)	<i>Emberiza bruniceps</i> (335)
<i>Alcedo atthis</i> (178)	<i>Passer domesticus</i> (364)
<i>Coracias garrulus</i> (183)	<i>Passer montanus</i> (366)
<i>Upupa epops</i> (184)	<i>Oriolus oriolus</i> (376)
<i>Galerida cristata</i> (198)	

The Hari-rud Valley

On July 1, 1949 we arrived in Herat and during the period until July 21 we travelled in the Hari-rud Valley from Islam Qala at the Iranian frontier in west to Kwaja Chisht in the east. The two extremes are separated

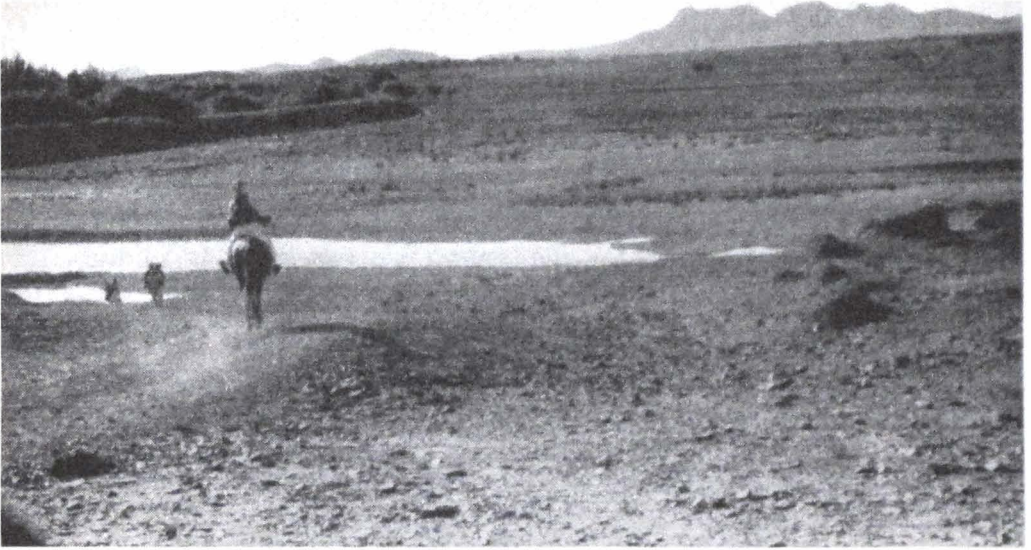


Fig. 16. The plains at Shin Dand (appr. 1200 m.). Western Afghanistan. 29. vi. 49.

by a distance of 300 km. by road and according to my barometer readings the bottom of the valley rises by 760 m., from 880 to 1640 m. altitude. At Islam Qala one does not get the impression of being in a valley but rather in a vast plain which, although gradually getting narrower, varies a good deal in width. West of Obeh it is still of considerable extent, probably about 15 km. wide while at Kwaja Chisht it is a very narrow valley. Only very small part of this valley is cultivated, the rest being a dry, even plain with the characteristic steppe flora. In places the river is bordered by low and open tamarisk brush (Fig. 17), strips of dry, grassy meadows or, where the river is quiet and along irrigation canals, by narrow reed-beds. The surrounding hills are low, rounded and very barren; the town of Herat with its large gardens and the villages amidst their greenery are the only bright spots of the countryside.

The following species were recorded from along the river:

Haematopus ostralegus (102)
Lobivanellus indicus (106)
Charadrius dubius (108)
Burhinus oedicnemus (132)
Sterna hirundo (143)
Sterna albifrons (144)
Columba eversmanni (153)

Alcedo atthis (178)
Motacilla flava (218)
Motacilla citreola (219)
Motacilla alba (221)
Acrocephalus stentoreus (294)
Acrocephalus scirpaceus (295)

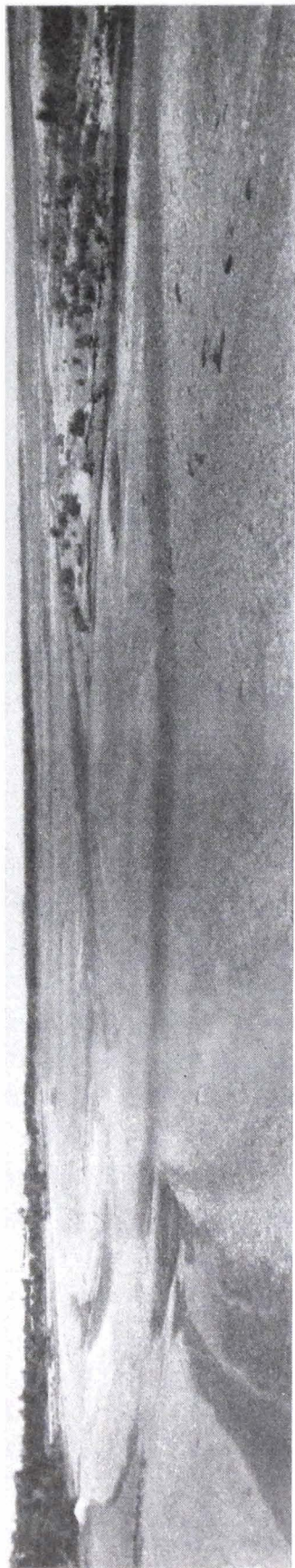


Fig. 17. Harirod near Herat (appr. 1050 m.). Western Afghanistan. On the left part of the town with gardens.
On the right tamarisk copse in the river bed. 4. vii. 49.



Fig. 18. The secondary valley at Obch, view from appr. 1800 m. towards the Hari-rud Valley.
14. vii. 49.

At greater distance from the river, in the steppe proper, we found:

Chlamydotis undulata (100)

Pterocles orientalis (147)

Cursorius cursor (133)

Oenanthe isabellina (267)

The birds inhabiting the cultivated land were mostly the species which have already been mentioned from similar habitats although three species occurring here were not seen in Farah and Shin Dand:

Parus major (320)

Pica pica (382)

Sturnus tristis (374)

Ardewan Kotal

On July 16 I drove from Herat to Ardewan Kotal, 50 km. outside the town. The road winds through a desolate mountainous district with occasional areas of arable land in the valleys. The pass which I measured to be at 1640 m. above sea level is surrounded by rounded ridges, to a large extent cultivated. The scenery is not unlike the vicinity of Faizabad in Badakhshan. In the fields of the pass I recorded:

Calandrella acutirostris (194)

Emberiza bruniceps (335)

Melanocorypha bimaculata (195)

Passer domesticus (364)

Alauda arvensis (199)

Obeh and Kwaja Chisht

A short distance west of Obeh in the Hari-rud Valley a small tributary valley leads up among the northern mountains. At 1820 m. altitude are some hot springs which are supposed to possess curative properties, hence there is a small hotel here far away from the beaten road. We spent the days July 11–18 here exploring the valley (Fig. 18) and its interesting bird life. The variety of habitats comprised a small brook in the bottom of the valley, a narrow border of trees and bushes, mostly willow, plane, small-leaved maple, hawthorn, roses and bramble, and higher up the hillside scattered bushes of *Juniperus polycarpus* which occur to the very ridge at about 2820 m. altitude. This oasis among the barren mountains was inhabited by the following species:

<i>Columba palumbus</i> (154)	<i>Myiophonus caeruleus</i> (272)
<i>Streptopelia turtur</i> (155)	<i>Phylloscopus neglectus</i> (279)
<i>Motacilla cinerea</i> (220)	<i>Cettia cetti</i> (289)
<i>Lanius collurio</i> (226)	<i>Sylvia hortensis</i> (303)
<i>Lanius minor</i> (230)	<i>Scotocerca inquieta</i> (310)
<i>Cinclus cinclus</i> (233)	<i>Muscicapa striata</i> (315)
<i>Luscinia megarhynchos</i> (241)	<i>Carduelis carduelis</i> (346)
<i>Irania gutturalis</i> (245)	<i>Coccothraustes coccothraustes</i> (361)
<i>Turdus merula</i> (269)	<i>Pica pica</i> (382)
<i>Turdus viscivorus</i> (271)	<i>Corvus corone</i> (387)

The following additional species were found in this valley in association with rocks and mountain slopes:

<i>Hirundo rupestris</i> (203)	<i>Sitta tephronota</i> (327)
<i>Monticola solitarius</i> (254)	<i>Emberiza stewarti</i> (336)
<i>Oenanthe xanthopyrmyna</i> (261)	<i>Emberiza buchanani</i> (338)
<i>Oenanthe picata</i> (264)	<i>Serinus pusillus</i> (344)

The days July 18–20 were spent visiting Kwaja Chisht higher up the Hari-rud Valley. Here one also finds a secondary valley with a small border of trees but since the entire village transfers its household and home life to this area during the summer we had no opportunity for studying the bird fauna in detail. It was our impression, however, that the fauna was much poorer than the one we found at Obeh. We saw one species, *Terpsiphone paradisi*, which was not recorded at Obeh.

Northern Afghanistan

Sauzak Kotal

On July 22 we left Herat for Kabul along the northern main road. En route to Qala Nau we crossed the main mountain range through Sauzak Kotal about 112 km. ENE of Herat at about 2500 m. altitude. This pass is

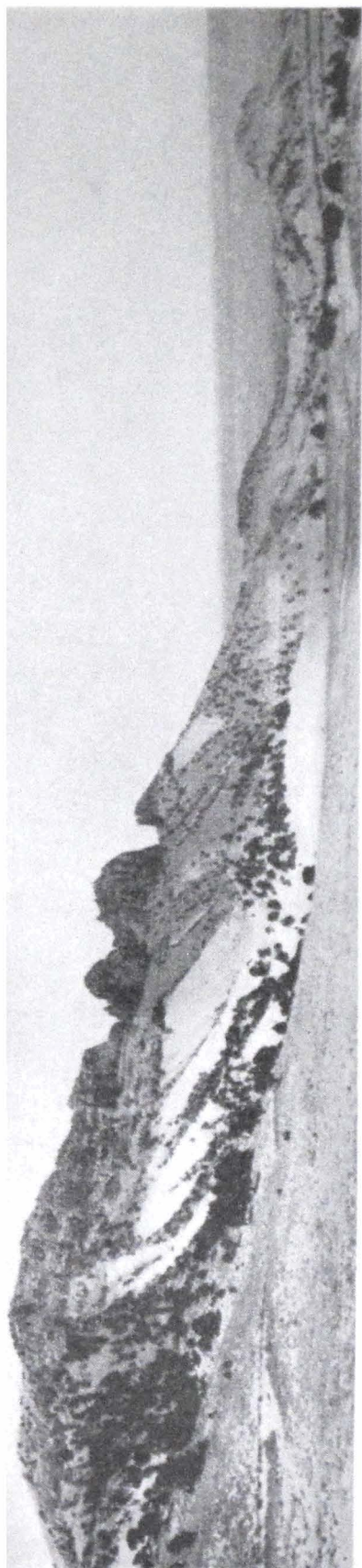


Fig. 19. View (W → N) from Sauzak Kotal (appr. 2500 m.). Stands of *Juniperus polycarpus*.

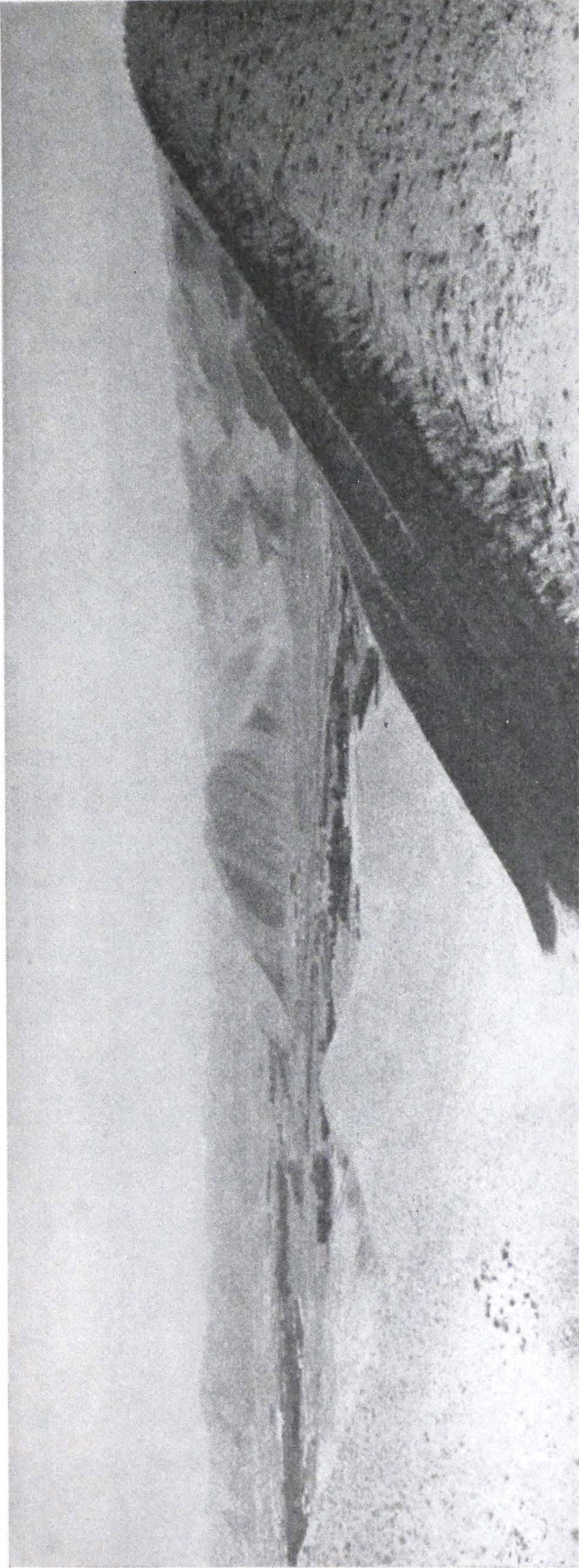


Fig. 20. Scenery near Qala Nau (appr. 950 m.). Northern Afghanistan. 23. vii. 49.

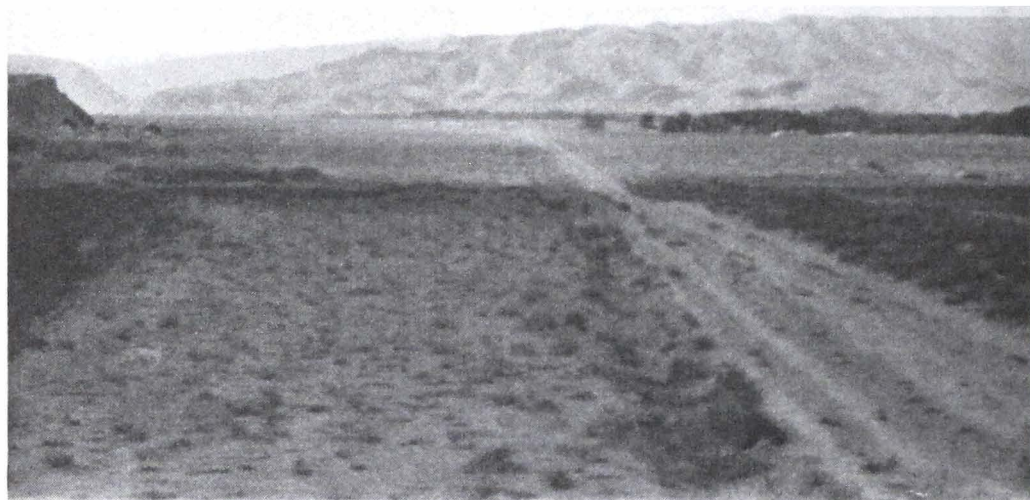


Fig. 21. The valley at Bala Murghab (appr. 550 m.). Northern Afghanistan. 26. vii. 49.

some distance east of Zarmast Kotal which, unlike Sauzak, is shown on most maps.

Ascending among rounded mountains with many cushion plants the road reaches the pass and discloses a wonderful view of the wide valley (Fig. 19) bounded in the north by impressive vertical rock walls with grey and reddish brown as the predominant colours. Tall *Juniperus polycarpus* trees occur in the pass and in places they may even form a partly closed stand which, however, only occupy small areas. Dotted all over the north facing hillsides are solitary, fairly tall junipers. In the pass and its immediate vicinity we found:

<i>Falco tinnunculus</i> (78)	<i>Phylloscopus neglectus</i> (279)
<i>Columba palumbus</i> (154)	<i>Regulus regulus</i> (288)
<i>Phoenicurus ochruros</i> (246)	<i>Parus rubidiventris</i> (321)
<i>Oenanthe oenanthe</i> (262)	<i>Certhia himalayana</i> (329)
<i>Turdus viscivorus</i> (271)	<i>Pica pica</i> (382)

Mountains and steppes of North Afghanistan

The journey back to Kabul from Herat went through northern Afghanistan this enabling us to get an impression of the habitats of this province and of the characteristics of its bird fauna.



Fig. 22. Narrow valley at Miana Bam, South of Bala Murghab (appr. 700 m.). Northern Afghanistan. Typical habitat of *Oenanthe finschii*. 24. vii. 49.

On July 22 we crossed Sauzak Kotal, crossed the wide valley north of the pass and entered the rounded foothills among which Qala Nau is situated at 950 m. altitude (Fig. 20), in a place where several valleys meet. Near the town all the valleys are cultivated and so is part of the surrounding hills but since we were there in late July the harvest was already over and barrenness prevailed, the gardens of the town being the only exception.

The rounded hills with their sparse vegetation of dry and spiny plants are the dominant type of scenery all along the road through Bala-Murghab and Maimana and north to the vicinity of Daulatabad; the only feature subject to variation is the width of the valleys. At Bala-Murghab (Fig. 21) it is very wide and large part of it is cultivated thanks to the abundance of water supplied by the river Murghab. In a few places, e.g. at Miana Bam south of Bala-Murghab, the road traverses a valley which is best characterized as a canyon with outcrops of rock (Fig. 22). It is exceptional to come across a little tamarisk scrub along the rivers, elsewhere outside the arable land trees and bushes are absent; the only exception was some hillsides, visible in the distance from Bala-Murghab, which had scattered trees (pistachios ?).

North of Maimana the road follows a very wide valley which, beyond Daulatabad, falls into the vast North Afghan plain; south of Andkhui it

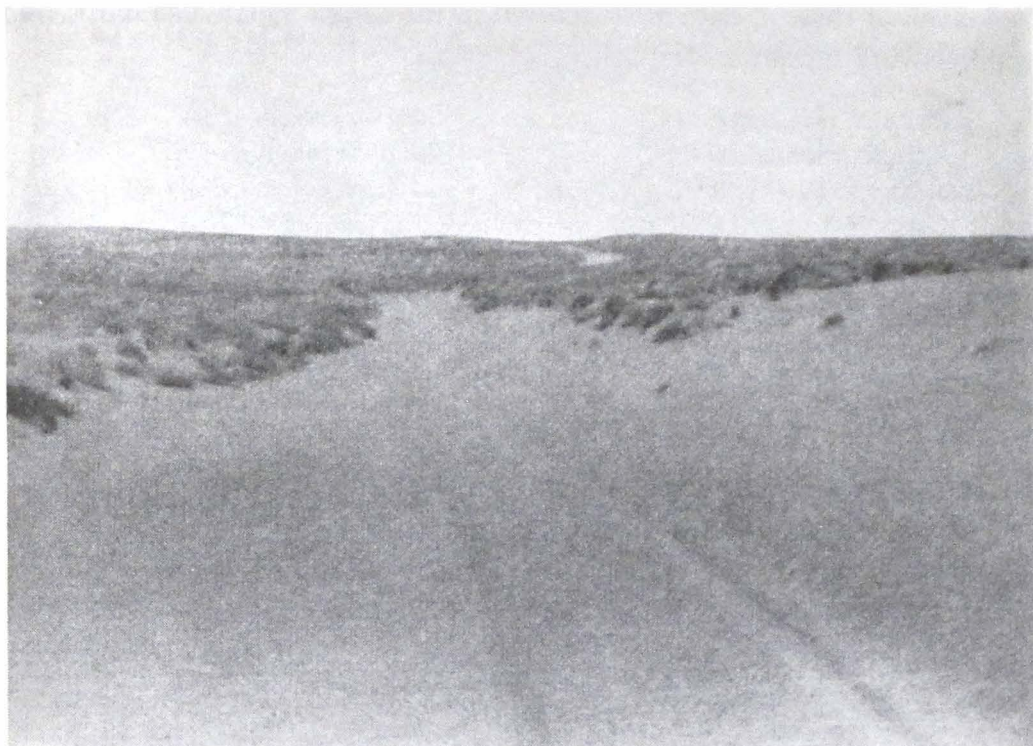


Fig. 23. Dunes 25 km. SE of Andkhui, Northern Afghanistan. 30. vii. 49.

has the same character as the southern plain but the proximity of the Qara Qum desert was obvious partly through the fact that we collected *Corvus ruficollis* not recorded with certainty from other parts of Afghanistan and partly because southeast of the town we crossed a 20 km. wide belt of overgrown sand dunes (Fig. 23).

The road continues through the plain from Andkhui through Shibarghan, Aq Chah and Mazar-i-Sharif to Tashkurghan where again it enters the mountainous country and leads to Haibak. We had now entered a district where the bird fauna had been studied by MEINERTZHAGEN (1938).

Our travels which only lasted a short time do not enable us to give an exhaustive account of the bird fauna, furthermore our travel took place in late July when day temperatures about 40° were common and the activity of birds correspondingly low. Disregarding the cultivated land the following list comprises the birds which we found to be typical of this foothill country:

Ammoperdix griseogularis (79)

Pterocles orientalis (147)

Columba livia (151)

Columba eversmanni (153)

Athene noctua (166)

Merops apiaster (180)

Coracias garrulus (183)

Upupa epops (184)

Galerida cristata (198)

Oenanthe picata (264)

Oenanthe finschii (265)

Oenanthe isabellina (267)

Several of these species also occurred in the steppe which also harboured the following species among others:

Pterocles alchata (145)

Pterocles orientalis (147)

Merops apiaster (180)

Merops superciliosus (181)

Galerida cristata (198)

Oenanthe isabellina (267)

Corvus ruficollis (388)

Estival migration

It is a well-known fact that immediately after the breeding period the Rosy Pastor migrates south, away from the hot Turkestan steppes, and accordingly I saw large flocks migrating in July. It is however, an open question whether not other birds also leave the warm lowlands early and migrate to the mountains where the climate is more cool. I made some observations which may be taken to support this assumption.

On 25 July, at about 15.00 hrs. I saw 30 *Milvus migrans* and 2–3 *Neophron percnopterus* soaring at great height on their migration up through the valley at Bala Murghab. On the following day we came upon a flock of about 100 kites and a few Egyptian Vultures resting—and probably enjoying the shade—in and beneath some trees planted along the road. Considering the small number of kites we usually saw during a day this concentration was remarkable. On July 28 two flocks of 15 and 18 *Buteo rufinus* sought shade near the brow of a small hill at the road near Daulatabad; and on August 4 several small flocks of *Falco naumanni* occupied the telephone wires in the valley leading up to Paigah Kotal, between 100 and 200 birds being present. Also concentrations of *Coracias garrulus* were seen under such circumstances that migration seemed likely. Although the Roller is seen practically everywhere in Afghanistan it seemed more abundant between Bala Murghab and Maimana than I had found it anywhere else, in great numbers it occupied the telephone wires and the occasional trees.

The extent of this presumed migration and the species involved can only be determined through prolonged studies in the same place but the observations made during our quick tour of this district gave me the definite impression that mere chance cannot explain the concentrations seen.

The Central Highlad

Unai Kotal and Panjao

We left Kabul on June 9, 1949 and proceeded up the Maidan Valley and—on the next day—across Unai Kotal (3100 m.) to eastern Hazarajat



Fig. 24. The scenery between Unāi Kotal and Panjao (appr. 2900 m.). Eastern Hazarajat. In the distance, about 40 km. away, the Koh-i-Baba range. On the right a small village with its fields extending into the foreground. 11. vi. 49.

where we had our camp at Panjao (2700 m.) during the period June 11–18 and from where we returned along the same route.

Unāi Kotal is surrounded by rounded mountain ridges with sparse vegetation. Still more desolate and barren—if that is possible—is the rolling sea of mountains beyond the pass; with their cover of erosion products the mountains give one the impression of being just as many ranges of stone- and gravel-heaps with occasional rock outcrops. Add to this the considerable elevation and the various minor passes around 3000 m. which must be negotiated in addition to the main pass and one may imagine the magnificent panorama flanked in the north by the Koh-i-Baba Massif with summits above 5000 m. and snowclad to a large extent in the middle of June, even on south-facing slopes (Fig. 24).

The valleys of eastern Hazarajat are typically V-shaped with narrow bottoms giving room for little more than the river itself. Over long stretches the road has been constructed high up the steep hillsides or along the ridges, and the few and small villages and their primitive agriculture are also forced on to slopes and ridges. Only rarely does the valley expand sufficiently to accommodate a few small fields or a thicket along the river. The thickets

may in favourable places reach a height of about four metres and largely they consist of willow and *Hippophaës sp.*

A bird fauna rich in species or even individuals cannot be expected in this setting, nevertheless we recorded 57 species during our short stay. Along the watercourses we found:

<i>Charadrius dubius</i> (108)	<i>Motacilla cinerea</i> (220)
<i>Tringa hypoleucos</i> (119)	<i>Motacilla alba</i> (221)
<i>Motacilla citreola</i> (219)	<i>Cinclus cinclus</i> (233)

Among these *T. hypoleucos* and *M. citreola* were only seen where willow scrub bordered the river. Other inhabitants of the willow scrub were:

<i>Lanius collurio</i> (226)	<i>Sylvia althaea</i> (307)
<i>Luscinia megarhynchos</i> (241)	<i>Carpodacus erythrinus</i> (355)
<i>Luscinia svecica</i> (242)	<i>Oriolus oriolus</i> (376)
<i>Saxicola torquata</i> (256)	<i>Pica pica</i> (382)
<i>Cettia cetti</i> (289)	

Some of these species also occurred among trees and bushes at the villages but otherwise the cultivated areas contributed no additional faunal elements except House and Tree Sparrow.

The stony mountain slopes were inhabited by:

<i>Calandrella acutirostris</i> (194)	<i>Sitta tephronota</i> (327)
<i>Phoenicurus ochruros</i> (246)	<i>Rhodopechys sanguinea</i> (351)
<i>Monticola saxatilis</i> (253)	<i>Rhodopechys mongolica</i> (352)
<i>Oenanthe xanthopyrma</i> (261)	

On the plateaus, along the ridges and in the passes some of the species just mentioned occurred, and in addition we recorded here:

<i>Eremophila alpestris</i> (197)	<i>Carduelis flavirostris</i> (347)
<i>Oenanthe oenanthe</i> (262)	<i>Petronia petronia</i> (362)
<i>Oenanthe deserti</i> (266)	<i>Montifringilla nivalis</i> (369)
<i>Oenanthe isabellina</i> (267)	<i>Montifringilla theresae</i> (370)

The autumn migration through the Bamian district.

On June 1 we left Kabul, drove up the Ghorband Valley and across Shibar Kotal (appr. 2900 m.) to Bamian from where we had planned to continue westwards across 3400 m. high Nil Kotal and then to reach Panjao through Koh-i-Baba. When, on the sixth, we tried to get through Nil Kotal we were forced to give up; several days of heavy rain and snow had soaked the primitive road to such an extent that the jeep refused to climb the last part of the ascent. We decided to return to Kabul and reached Panjao across Unai Kotal along the route described above.

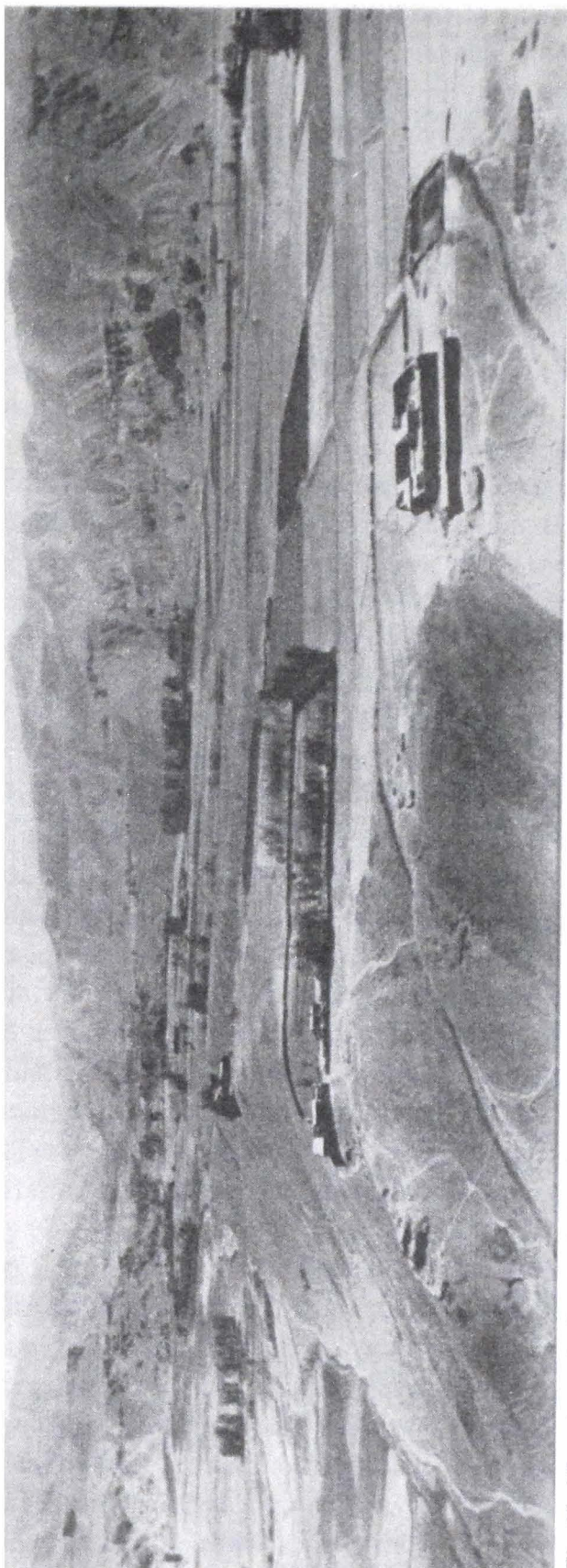


Fig. 25. View down the Bamian Valley (appr. 2500 m.). On the left the true valley bottom; on the right one of the plateaus which occupy a considerable part of the valley. 7. ix. 49.

My observations of the bird fauna of Shibar Kotal during the breeding period and of the Bamian Valley and the elevated passes and valleys west of Shibar Kotal were restricted to a few days but as regards the dominant species outside the cultivated areas the fauna was little different from what we saw between Unaï Kotal and Panjao except that *Tetraogallus himalayensis* and *Carpodacus synoicus* which we found breeding in the Bamian area were not recorded in the former district.

On September 5 we returned to the Bamian Valley and remained there until October 18 to make observations on the autumn migration which however, turned out to be a disappointment, only traces of visible migration occurred here, and also the number of resting birds was very low, although with a few exceptions.

The main course of the Bamian Valley is east-west. The central part with the gigantic Buddha statues is situated at an altitude of appr. 2550 m. The bottom of the valley is fairly wide here and much land is cultivated, also on the immense alluvial plateaus which from the southern mountains extend into the valley (Fig. 25). The hills are barren and with an exceedingly sparse vegetation. The ridge immediately north of Bamian reaches 3950 m. while, in a southerly direction, the bordering Koh-i-Baba, about 20 km. away, rises to 5000 m. height. In the western end of the valley tributary valleys lead down from Nil-Kotal and, in the north, from Aq-Ribat. Towards the east the Bamian River joins the river coming down from Shibar-Kotal and as a single river they penetrate the Hindukush Range through a narrow canyon, Darra-i-Shikari. During our stay we lived in the Bamian Hotel, near the edge of the plateau opposite the buddhas, and from where we had a magnificent view of the valley which enabled us easily to follow the movements of larger birds through the valley. When not on excursions to the nearby valleys and passes I made an inspection round every morning and afternoon along one particular route which went through a most varied pattern of habitats. These regular walks gave me an improved possibility for judging the variation in numbers of resting birds.

I had expected that the Bamian Valley would offer good opportunities for watching the migration across the northern mountain range since this migration could be presumed to concentrate in Darra-i-Shikari and to proceed up the Bamian Valley. It did not work out like this in the Bamian Valley, and visits to Darra-i-Shikari and to the valley below Aq-Ribat showed no evidence of concentration there either. The same seemed to hold true of the elevated valleys between Bamian and Band-i-Amir which I visited several times. During my trips to the small valleys leading down

from the northern ridge several resting passerines were observed, often at considerable altitude, there was thus some evidence that the migration passed the mountains on a broad front without concentrating in the lowest passages or valleys. Another factor which may have contributed to the small number of resting birds may be sought for in the fine weather which at no time can have interfered with the smooth progress of the migration. The sun was out and the sky clear practically all the time, only one day had high clouds partially covering the sky and a couple of days a little fog in the valley but none of these days showed a change in the number of resting birds.

The only birds present in fair numbers were:

Anthus trivialis sibiricus (213)

Motacilla alba dukhunensis (221)

Motacilla flava beema (218)

Four species of ducks were seen but only in moderate numbers. There are grounds for assuming, however, that the migratory activity increases later in the autumn since small artificial lakes with decoy ducks had been made in various places, thus it can be inferred that there is so much migration that it plays a certain role for the local hunters.

Even the migration of birds of prey was not much noticeable in the valley although varying numbers of the following species rested here:

Milvus migrans lineatus (46)

Buteo rufinus (49)

Accipiter nisus nisosimilis (48)

Circus macrourus (66)

The following are examples of the many passerine birds which occurred in low numbers but which by their presence showed that the migration passes through the valley

Galerida cristata (198)

Phylloscopus inornatus humei (283)

Anthus c. campestris et griseus (211)

Acrocephalus dumetorum (296)

Anthus trivialis schlüteri (213)

Acrocephalus agricola (297)

Luscinia svecica saturator (242)

Hippolais caligata rama (301)

Saxicola torquata maura (256)

Sylvia communis icterops (304)

Phylloscopus collybita fulvescens (278)

Sylvia curruca blythi (305)

Other species are mentioned in the systematic section where also the more important observations on the migration around Bamian are mentioned in somewhat greater detail.

IV. Taxonomy and field data

A few comments are necessary in order to explain recurrent features of the following systematic account of the material:

Sex : The two figures given immediately after the symbol of a male bird indicate width and length of the larger testicle. In the text the testes are often stated to be "injected" which means that the superficially visible vessels were dilated and full of blood; when this is the case the testes are in the active stage. It is also mentioned whether the vesiculae seminales were enlarged in which case the cloacal protuberances are very prominent in many passerine birds. The presence of this character indicates that the bird is in breeding condition (WOLFSON 1954).

The symbol indicating a female bird is followed by two figures or only one; two figures indicate length and width of the left ovary and one figure the diameter of the largest follicle.

Weights (we.): Unless otherwise stated all weights are in grammes.

The wing (wi.) is measured by stretching it out on the ruler until it is quite flat, and thus the longest possible measurement is obtained.

The tail (tl.) is measured with one end of the dividers pressed against the skin between the central pair of rectrices, while the other is passed to the tip of the longest tail feather.

The tarsus (tr.) is measured from the middle point of the joint between tibia and metatarsus (behind) to the front of the junction of metatarsus with the base of the middle toe.

The bill is measured with dividers either from the skull (bs) or from the nostril (bn) to the tip of the bill.

All measures of length are in millimetres.

Age : Where no age is given the specimen is assumed to be adult. The term subadult refers to specimens in which moulting of the juvenile plumage has taken place but which still show characters by which they can be distinguished from fully adult specimens.

The English bird names are not always in accordance with the current names; the reason for this is that I have preferred to use the names given by WHISTLER (1944-45, 1949) and STUART BAKER (1922-30, 1932-36) since these works are consulted by all persons dealing with the Afghan bird fauna.

As to geographic names reference is made to the remarks given in the Introduction.

Material not used

A fairly large material of stomach contents and endocrine organs was collected but not used for the present publication, and most likely I shall never get the opportunity of working up this material.

Stomach contents: When possible the contents of oesophagus and ventriculus were dried, and it is still kept in this condition. For the larger birds, especially birds of prey, this procedure was not feasible and only notes on the contents were made. In case any institution is interested in this material or part of it it will be available on application to the Zoological Museum, Copenhagen.

From a very large number of individuals the following glands were fixed in Bouin's fixative: gonads, adrenals, thyroid and hypophysis. In other cases only some of these organs were kept. For each species it was attempted to cover the different stages as completely as possible. If this material or part of it is desired as a supplement to current research application should be made to: Institut for sammenlignende anatomi, Universitetsparken 3, Copenhagen Ø.

With a view to anatomical studies several species were kept in toto or the body only. This material as well as the skins are deposited in the Zoological Museum, Copenhagen.

(3)¹). *Pelecanus onocrotalus* Linné – White Pelican

The White Pelican is a passage migrant in southern and western Afghanistan. Observations by CUMMING (1905: 696) and by YATE (1900: 85) make it possible that some may winter in Seistan.

In March, 1949, I found numerous resting pelicans in Hamun-i-Sabari. During our visits on February 25 and March 2 and 4 to the estuary of Farah Rud we still did not see any, but on the 7th we saw here a densely packed flock of more than 200 individuals. Spread over the visible part of the Hamun smaller and larger flocks were further observed. All in all several hundred birds were seen. On the 9th we visited the place again and found about the same number, but on the 18th there were only eight in the estuary. A flock of large light birds far away was presumably also pelicans. On the 20th at noon a flock of 150–200 individuals soared above our camp at Faizabad. In the afternoon of the 23rd we saw again three large flocks of about 500 individuals. They soared at a considerable height for a rather long time and then disappeared in the direction of the Hamun. During the last week of the month we visited the Hamun four times and counted from a few to several hundred birds. After that time we did not

¹) The figures refer to the respective numbers in the list of Afghan birds, p. 300.

visit the Hamun but stayed for another fortnight at Faizabad, not far from the Hamun, without seeing more pelicans.

The pelicans like all the other birds in the Hamun were very wary and difficult to approach as there was no cover. There can be no doubt, however, that the greater part, or presumably all of the observed birds were *Pelecanus onocrotalus*. When the light was favourable the beautiful rosy colour of the plumage could be seen in several of the birds. The colour of the beaks seemed to be red as in the Stork. In some individuals, however, no rosy colour could be seen, the plumage was darker and the beaks were also darker, not red. There was no difference in size in these two colour types. The darker individuals were presumably subadult, non-breeding birds.

(4). *Phalacrocorax carbo sinensis* (Shaw) – Common Cormorant

The Common Cormorant presumably breeds in Afghanistan although there is no proof hereof. In July 1948 I observed it several times in Badakhshan along the Kokcha River from an altitude of about 200 m. down to between Jurm and Faizabad, where on the 12th eight were sitting on a rock wall at the river. Nesting places, however, were not to be seen.—On September 28, 1949, one was seen on a lake at Band-i-Amir in Central Afghanistan.—During the stay from the end of February to the middle of March, 1949, on the lower Farah Rud in Seistan I saw sometimes single birds or a few together at Hamun-i-Sabari or along the Farah Rud. On March 7, however, a flock of 30 flew over the Hamun, and on April 17 at Faizabad a flock of 12, which disappeared in the direction due NNE. SARUDNY (1900: 109) found this cormorant a common breeding bird in the Iranian parts of Seistan.

(7). *Ardea cinerea cinerea* Linné – Common Heron

During our stay in Seistan we frequently saw from March 7 to 30, 1949, the Common Heron at Hamun-i-Sabari. As a rule there were only a few, but on the 30th we counted 30 within a short distance. On the 29th six birds, on April 10 a single passed over Faizabad. Nothing seemed to suggest that it bred in Seistan where SARUDNY (1900: 108) found it to be a common breeding bird in the Iranian part.

Outside Seistan I saw, on April 3, a single bird along the river at Farah, and on July 2–5 several times a single one along the Hari Rud at Herat.

(8). *Ardea purpurea purpurea* Linné – Purple Heron

Although SARUDNY (1900: 109) states that the Purple Heron breeds in huge numbers in the reed beds in the Iranian part of the Seistan lowland I

saw only two during our stay in Seistan, on March 12, 1949, at Baqrabad. On April 7 and 30, 1949, respectively, one and two individuals were observed at the town Farah.

(9). *Egretta alba alba* (Linné) – Large Egret

On April 6 and 30, 1949, I saw one single Large Egret on Farah Rud near Farah.

(11). *Nycticorax nycticorax nycticorax* (Linné) – Night Heron

The Night Heron is a breeding bird and winter visitor in Afghanistan. In the southwestern part of the country along the river at Farah I saw one adult and two juvenals in the evening of the second May, and on June 30 two adults in a willow scrub at Shin Dand. In the southern part on May 5 I saw four individuals above a small wooded island in the Helmand at Lashkari-Bazar, south of Girishk. In the evening of May 20, 1949, finally, two flew over Kabul. Breeding places were never found.

(12). *Ixobrychus minutus minutus* (Linné) – Little Bittern

Faizabad, Seistan

17. iv. 49. ♀ 3 we. 108 wi. 149

Panjao, Central Afghanistan

15. vi. 49. ♀ 3 we. 131 wi. 148

Only one specimen of the Little Bittern has previously been recorded from Afghanistan. The female listed above from Faizabad was the only one I observed in Seistan, it was collected on the river bank where on the same day at several places I found foot prints which may have been of this species, so several birds had probably rested there during the night.—On June 29, 1949, I flushed a little heron from a pool in a willow scrub at Shin Dand. It was presumably of this species.—The female collected on June 15 at Panjao in Hazarajat was the only one seen there. It perched in some low bushes on the river bank.—Finally, I observed two on August 5 in the vast reed beds at Chashma-i-Sher on the Danaghori Plains in northern Afghanistan.

In both the females collected the largest follicle measured 3 mm. in diameter, and the oviducts were somewhat enlarged although far from the maximum size. The observations are no evidence that this species breeds in Afghanistan but make it probable that it is a sporadic breeding bird.

(15). *Ciconia nigra* (Linné) – Black Stork

On June 11, 1949, I saw a Black Stork in one of the narrow desolate valleys between Farakulum and Panjao in eastern Hazarajat. The altitude was 2600 m. When we returned on the 18th one was seen again in nearly the same place. On the 12th MADSEN saw one in a willow scrub at Panjao. – Three birds were fishing on July 19, 1949 in a small stream in the Hari Rud Valley at Kwaja Chisht. – In the Surkhab Valley below Doab one was seen on August 7.

There were only two earlier records from Afghanistan. My observations, of course, do not prove that it breeds in the country for all the birds observed may have been non-breeding summer visitors. According to IVANOV (1940: 40), however, it breeds in southern Tadjikistan, just north of the Afghan border and in fairly the same kind of habitat. The nest is there sometimes placed on rocks or conglomerate walls.

(17). *Platalea leucorodia leucorodia* Linné – Spoonbill

On May 22, 1949, MADSEN saw two newly killed spoonbills for sale in the bazar of Kabul.

(18). *Phoenicopterus ruber roseus* Pallas – Flamingo

Ab-i-Istada, E Afghanistan

9. v. 49 ♀ 3 wi. 400 tr. 280 bs. 123

Babar the Great (1483–1530) found “. . . not ten thousand or twenty thousand, but absolutely beyond computation . . .” of Flamingoes in the breeding season at Ab-i-Istada, a lake east south east of Mukur, between Kabul and Kandahar. On July 17 АКХТАР (1946 and 1947) visited this locality where he found the Flamingo still breeding. A colony with hundreds of eggs but still no young was found, out on a small island.

On May 9, 1949, we visited the lake for a few hours. All in all we saw only between 50 and 100 Flamingoes. About a dozen birds were standing on the beach of the small island, where I found the cone-shaped nests from the previous year in the central higher part of the island. They were about 20 cm. high and made of earth and pebbles. There were no eggs and the birds did not seem to have been working at the nests. The adult female collected had the ovary rather small (22×7) and the largest follicle measured 3 mm. in diameter.

(22). *Anser anser* (Linné) – Grey Lag Goose

On March 4, 13 and 24, 1949, we observed at Hamun-i-Sabari flocks of 100, 20–30, and 50 grey geese respectively, with very distinct light fore-

wing. They were undoubtedly Grey Lag Goose. SARUDNY (1900: 105) says it is a resident in the Iranian Seistan where it nests in the neizar. Some notes by AITCHISON (SHARPE 1889: 93) and CUMMING (1905: 697) indicate that it breeds or had bred also in the Afghan part of Seistan.

On March 4 I saw, besides the Grey Lags a large flock of another grey goose which was much darker than the first mentioned. In the flat barren country I could not get near enough to the birds to identify them. It possibly was *Anser albifrons* but it may just as well have been *Anser fabalis*. However, this species so far has not been recorded from Afghanistan.

(25). *Tadorna ferruginea* (Pallas) – Ruddy Sheldrake

On March 24, 1949, I saw twice one single Ruddy Sheldrake at the Hamun-i-Sabari where SARUDNY (1900: 105) says it is a rather common resident in the Iranian part.

(26). *Tadorna tadorna* (Linné) – Sheldrake

CUMMING (1905: 697) states that the Sheldrake is a common resident in Seistan, where on March 18 and 24, 1949, I saw two flocks each of a dozen individuals at Hamun-i-Sabari. – During our short visit on May 19, 1949, to Ab-i-Istada we saw several Sheldrakes which occurred in pairs or in small flocks of about a dozen birds. When AKHTAR visited this locality on July 17, 1947, he saw "A big goose with nine young" (1947: 311), and his description of the young makes it probable that it was either *T. tadorna* or *T. ferruginea*. This latter species, however, we did not observe there, so most likely it was *T. tadorna* which he found breeding. – On January 12, 1948, I saw a newly killed Sheldrake for sale in the bazar of Kabul.

(27). *Anas platyrhynchos platyrhynchos* Linné – Mallard

During the first half of March 1949 we made some excursions to the Hamun-i-Sabari, where we saw several ducks but they were very wary and always so far away that an identification was not possible. On the 18th I went out by kayak and found now several small flocks of Mallard. When I went out again on the 24th I did not see a single Mallard, and later in the month I saw only one male together with two females, so the migrants undoubtedly left the lake about the middle of March.

The spring migration is very slight along the rivers in the very mountainous province of Nuristan for two single drakes on March 1 and 26, 1948, were all what I observed during my stay there.

The beginning of the autumn migration 1949 was observed at Bamian but very few Mallards were seen: on October 3, 13 and 14 one or two individuals, and ten on the 17th. On September 28 we made a trip to Band-i-Amir, west of Bamian, where we found several ducks of which a few were Mallards.

This bird was rather often sold in the bazar of Kabul during the winter 1947–48. On May 20, 1949, I saw three in female plumage on the river inside this town.

(28). *Anas querquedula* Linné – Garganey

Bamian, Central Afghanistan

8. ix. 49. ♂ $6 \times 1\frac{1}{2}$ wi. 196

SARUDNY (1900: 103) states that the Garganey is a scarce breeding bird in the Iranian part of Seistan. From the Afghan part, however, it does not seem to have been recorded, and I never saw it there during the early spring of 1949. During the autumn migration I observed from a single up to a dozen on September 7, 8, 9, and 12, and on October 7 and 11 at Bamian in Central Afghanistan.

(29). *Anas crecca crecca* Linné – Teal

Hamun-i-Sabari, Seistan

7. iii. 49. ♀ 13×5 wi. 182

Bamian, Central Afghanistan

20. ix. 49. ♀ 12×5 — 177 we. 234, juv.

CUMMING (1905: 697) supposes that the Teal is a breeding bird in Seistan where we found it to be the dominant species among the rather large flocks of ducks which we observed from the end of February through March in the estuary of Farah Rud. On April 6 a flock of half a dozen flew up the river at Farah.

The spring migration 1948 was studied in Nuristan where I saw several flocks from March 1 to April 22 along the Pech River. These migrants had to cross passes at altitudes above 4000 m. on their way to the northern breeding grounds.

The autumn migration 1949 was not very pronounced during our stay at Bamian. From September 17 to October 11 I saw, however, frequently small flocks along the river or in flooded areas.

The species seems to winter in many parts of the country and presumably also in the vicinity of Kabul for on December 21, 1947, I saw one for sale in the bazar.

(31). *Anas acuta acuta* Linné – Pintail

In March, 1949, the Pintail was very common on Hamun-i-Sabari where it was second in number to the Teal. By the end of the month it increased considerably in number. – On March 21, 1948, I saw a single male on the Pech River in Nuristan. This was the only individual observed during all the spring.

On September 28, 1949, I found 100–200 individuals on the beautiful lakes at Band-i-Amir, west of Bamian in Central Afghanistan. Until then I had observed no migration at Bamian but a few ducks on October 9 and 11 presumably belonged to this species.

(33). *Anas penelope* Linné – Wigeon

Bamian, Central Afghanistan

15. x. 49. ♀ 13×6 wi. 238

On March 24, 1949, I saw a dozen Wigeons on Hamun-i-Sabari. The specimen listed above was given to me by a hunter who had just shot it at the river. I never saw it myself at Bamian.

(34). *Anas strepera* Linné – Gadwall

Gusalek, Nuristan

26. iii. 48 ♂ 10×5 wi. 263

On March 26, 1948, I saw a flock of 2 males and 3 females, and a pair along the Pech River at Gusalek, Nuristan.

(35). *Anas clypeata* Linné – Shoveller

On February 17, 1949, I saw a flock of a dozen Shovellers along the Tarnak River, north of Kandahar, and on March 2 and 24 a few on Hamun-i-Sabari.

(40). *Bucephala clangula clangula* (Linné) – Goldeneye

MADSEN saw a few Goldeneyes on March 7, 1949, in the estuary of Farah Rud, Seistan.

(42). *Mergus albellus* Linné – Smew

On February 20, 1948, I saw a male Smew on the Kabul River west of Jalalabad.

(45). *Elanus caeruleus vociferus* (Latham) – Black-winged Kite

On April 25, 1948, I saw a party of four small birds of prey at Wama in the Pech Valley, Nuristan. Their size was about that of a kestrel. Two of the birds were very pale, appeared to be almost white, with a black patch

on the upper side of the wing (? shoulder) and black tipped primaries. The two other were greyish brown. The flight was fast, gliding, and reminiscent in some way of the flight of gulls or terns. Staying a few hundred meters up the hill side I could look down at the birds which I had in very fine light. I think there can be no doubt of the identification of the birds as two adult and two juvenal Black-winged Kites.

The occurrence of this family might suggest breeding in Nuristan. On the other hand, I saw the species only on this single occasion although it was close to our camp where we stayed from March 31 to May 5. I think it more likely, therefore that the birds were post breeding stragglers which may just as well have come from the not very remote breeding places in India as from a breeding place in Nuristan.

According to WHISTLER (1945: 300) a specimen was collected in Afghanistan by GRIFFITH and another was obtained by Captain HAY at Kabul. IVANOV (1940: 59) mentions a male which was collected on April 19 at Termes in Tadjikistan, just north of the border to Afghanistan. But also in that country the status is uncertain.

(46). *Milvus migrans* – Black Kite

a. *Milvus migrans migrans* (Boddaert)

b. *Milvus migrans lineatus* (J. E. Gray)

a. Baqrabad, Seistan

16. iii. 49. ♂ 32×13 wi. 448

17. iii. 49. ♀ 3 — 438

Herat, W Afghanistan

10. vii. 49. ♂ 12×6 — (441)

Obeh, W Afghanistan

20. vii. 49. 0 — 446 subad.

b. Bamian, Central Afghanistan

10. ix. 49. ♀ 16×5 — 465 juv.

The specimens of series (a) are all true nominate *migrans*. The young female from Bamian represents the very characteristic *lineatus*.

During the breeding season the Black Kite was found in small numbers in most parts of the country. It breeds in the Kunar Valley and up the Pech Valley to Gusalek but it avoids the higher parts of Central Nuristan. In Badakhshan I never saw it in the Warduj and Sanglich valleys, and in the Kokcha Valley not above 1600 m. It may, however, breed at considerably higher altitudes for when on June 10, 1949, we crossed the Unai Kotal in Central Afghanistan we saw one at 3100 m. and in the middle of the month one at Panjao (2800 m.).

The only observation on the breeding is of a nest in a conglomerate wall seen on July 6, 1948, near Iskan in the Kokcha Valley, Badakhshan. The contents of the nest were not to be seen.

The Afghan population is partly migratory; some individuals are to be found at all seasons, for from the middle of December 1947 to the middle of January 1948 I frequently saw single individuals in Kabul or its vicinity, and even in the last half of January 1949 after a period of very severe frost some remained there.

My observations on the spring migration are rather scanty. During our stay on the lower Farah Rud from February 23 to April 21 we often noticed a few Black Kites during the period from March 5 to April 10, 1949. These birds may have been migrants but, on the other hand, the gonads were rather enlarged in the two birds collected. On April 11 and 30, 1948, single birds were observed at Wama in Central Nuristan. These were probably migrants for the species seems not to breed in this part of Nuristan.

On July 25, 1949, about 3 p. m. 20–30 kites together with a few Egyptian Vultures circled high over the valley at Bala Murghab in Afghan Turkestan. They followed the valley to the south, towards the higher mountains. The next day we veritably drove into a party of about one hundred individuals which perched in some trees along the road. The kites may have stayed there for some days for there were many moulted feathers and much manure under the trees. The kites were also in this case accompanied by some Egyptian Vultures. The few trees along a part of the road were the only shelter against the burning sun which could be found within a wide range. These observations may show that a summer migration takes place in Afghan Turkestan away from the extremely hot lower parts up to the mountains with a more pleasant climate.

No autumn migration of *M. m. migrans* was observed. During our stay at Bamian from September 6 to October 13, 1949, only a single bird occurred, namely on September 6. From the 9th to the 12th, however, a few *M. m. lineatus* passed over. They were rather easily identified by the dark under wing with the white wrist patch.

(47). *Accipiter badius cenchroides* (Severtzov) – Shikra

Qaisar, Maimana, N Afghanistan

26. vii. 49.	♂	6×4	we. 183	wi. 202
	♀	6×4	— —	— 215
	♀	8×4	— —	— 214

N of Maimana, N Afghanistan

28. vii. 49.	♂	6×3	— 161	— 197
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Haibak, N Afghanistan

2. viii. 49. ♀ 7×3 we. 227 wi. 217

All these birds were moulting the wing feathers and—with one exception—also the tail feathers. In two of them growing body feathers were noticed. The iris was orange coloured.

I have not been able to compare them with specimens of *cenchroides* (type locality Aoulië-Ata, Turkestan) or *chorassanicus* (type locality Makhtoum-kala, Transcaspia). This last name, however, seems to be a synonym of *cenchroides* (HARTERT, Ergänzungs. p. 419).

One stomach contained grasshoppers, another grasshoppers and rodent hairs.

I collected the Shikra only in northern Afghanistan. Besides the three specimens collected at Qaisar we saw a fourth individual. They were roosting in some trees along the road. The next two specimens in the list give all my further records from northern Afghanistan. South of the main mountain range I saw on July 5, 1949, a very pale *Accipiter* at Herat, it probably belonged to this species.

(48). *Accipiter nisus nisosimilis* (Tickell) – Sparrow Hawk

Pashki, Nuristan

11. v. 48 ♂ 7×3 we. 136 wi. 207 juv.

18. v. 48. ♂ 8×4 — — — 213

Bamian, Central Afghanistan

23. ix. 49. ♀ — — 242 — 248

29. ix. 49. ♀ 5×4 — — — 242

12. x. 49. ♀ 10×3 — — — 245

The specimens from Bamian as well as those from Nuristan agree in colour with Scandinavian breeding birds. They are, however, larger than nominate *nisus* for which the Handbook of British Birds gives a wing length of 190–205 mm. in males and 230–240 mm. in females. One might have expected the subspecies *melanoschistus*, with the dark upper parts, to be the breeding form of Nuristan as it breeds in Baluchistan and Kashmir. The two specimens from Nuristan, however, show no darkening of the plumage, and, according to WHISTLER, *nisosimilis* is also the breeding form of Gilgit (HARTERT, Ergänzungs. p. 419).

The stomachs of two of the females from Bamian contained feathers of a small bird. It may, however, take rather large birds for at Bamian I came upon a Sparrow Hawk sitting on a slain Magpie. Twice it flew off with its heavy prey (239 g.) before it gave it up and disappeared.

During the breeding season I observed the Sparrow Hawk only at Pashki in Nuristan. It was rather common there in the coniferous forests and it was also in some cases seen even above the tree limits. Lower down in the Pech-Parun Valley I saw a single one on April 11 at Wama. This may have been a migrant.

On January 19, 1948, I saw at Kabul a male and a female *Accipiter* chasing each other, and on January 14, 1949, a female was sitting for some time in a tree near our headquarter in that town. I think in both cases they were *A. nisus*.

From September 15 to October 13, 1949, I saw daily a few Sparrow Hawks in the Bamian Valley but anything like a mass migration never occurred. The birds observed were mostly resting in some poplars along the river.

(49). *Buteo rufinus rufinus* (Cretzschmar) – Long-legged Buzzard

Obeh, W Afghanistan

16. vii. 49. ♂ 6×3 wi. 434

Andkhui, N Afghanistan

28. vii. 49. ♂ 5×3 — 425

♂ 7×2 — 435

Paigah Kotal, Haibak, N Afghanistan

4. viii. 49. ♀ 20×6 wi. 450

Bamian, Central Afghanistan

8. x. 49. ♂ 6×2 wi. 436

11. ix. 49. ♀ 11×6 — 460

12. ix. 49. ♀ — 429

15. ix. 49. ♀ 15×6 — 450

22. ix. 49. ♀ 10×4 — 462

25. ix. 49. ♀ 10×7 — 456

11. x. 49. ♀ 16×5 — 487

Ghazni, E Afghanistan

24. vi. 49. ♂ 9×5 — 442

Iris pale yellow-brown. Cere light sulphur. Feet darker sulphur.

Five of the 12 specimens listed above belong to the red-brown phase, three to the dark-brown, and four are intermediates. At Bamian I counted in the field 24 individuals of the red-brown phase, 23 of the dark-brown, and two intermediates.

Three stomachs contained rests of *Lagomys*, one of an undetermined rodent, one of a lizard, and one of *Porzana sp.* and grasshoppers.

The Long-legged Buzzard is known to breed in eastern Afghanistan (WARDLAW-RAMSAY 1880: 47). The male which I collected on June 24 about 20 km. south of Ghazni may have been a straggler from the eastern

mountain range. It sat on a telephone pole and was the only one seen. Nothing indicated that it was on its breeding ground. The testes were rather small.

In Nuristan I observed it twice in the cedar forests above Pashki. On May 16 one was persecuted by two crows, and on the 27th I found in a narrow cleft a large, unacceptable eyrie on a rock-wall. It was apparently occupied but no bird was seen. When I visited the place again on June 4 a Long-legged Buzzard was circling over the rock-wall.

Two seen on July 12, 1948, between Faizabad and Barak in Badakhshan may also have been on the breeding grounds. One of them sat screaming high up on a rock while the other was circling above it.

On July 16, 1949, I collected the male listed above, in the main Hari Rud Valley at Obeh where it flew around and settled on hillocks in the fields. Two days later I saw another individual at the same place. These birds may have been migrants for when on July 28 we travelled from Maimana to Andkhui in northern Afghanistan, we observed a flock of over a dozen Long-legged Buzzards which sat on the ground in the shadow of a small slope where they had sought shelter against the burning sun. I think, as in the case of *Milvus migrans*, that these birds were on summer migration away from the very hot lowland to a more tolerable climate at higher altitudes. Besides the flock south of Andkhui we saw during our trip through northern Afghanistan only the female collected on 4 August 10 km. southeast of the Paigah Kotal, between Haibak and Pul-i-Khumri.

During the autumn of 1949 we studied the migration in the Bamian Valley, Central Afghanistan. From our arrival on September 6 to about the middle of the month I saw daily up to half a dozen individuals, from then on until the middle of October merely one to two on a single day. These were probably resting birds. On September 13, however, when I stood at an altitude of about 2800 m. in a narrow side valley, four Long-legged came rushing down from high up the valley, passed over-head on stiff half-closed wings, and continued down towards the Bamian Valley. These were probably migrating birds which had just crossed the main mountain range. – Further observations from Central Afghanistan were two individuals in the Shibar Kotal on August 7, and one on September 5.

(52). *Hieraaëtus pennatus pennatus* (Gmelin) – Booted Eagle

Obeh, W Afghanistan

18. vii. 49. ♂ 8×4 wi. 382 dark phase

The specimen listed represents the second record for Afghanistan. It perched on a telephone pole at the road between Obeh and Kwaja Chisht in

the Hari Rud Valley. It was the only one seen there. At Gusalek and at Wama in the Pech Valley, Nuristan, I saw a bird of prey on several occasions between March 20 and April 24, 1948, which I presumed to be the light phase of Booted Eagle. It was of the size of a *Buteo*, the under parts dirty white, the primaries dark, and the tail without bars. On April 24 one performed nuptial flight with headlong dives and looping, crying *djü'djü* or *gjik-!gjik*. Its breeding in Nuristan is to be expected, for it is breeding in Kashmir where SCULLY (1881: 420) found it to be a common breeding bird in Gilgit and FULTON (1904: 59) collected on May 11 a male at Drosh in Chitral, just at the east border of Nuristan.

(53). *Aquila chrysaëtos chrysaëtos* (Linné) – Golden Eagle

Mukur, E Afghanistan

25. vi. 49. ♂ 6×4 wi. 613 tl. 310

This specimen is an adult without white in the tail. As it is neither darker nor larger than Scandinavian birds, I refer it to nominate *chrysaëtos*, not to *daphanea* for which subspecies HARTERT (2: 1091) gives a wing length of 640–660 in males. It perched on a telephone pole and was the only one seen there.

I observed eagles on several occasions but since I was not sufficiently familiar in the field with the eagles which may occur in Afghanistan I felt rather uncertain about my identifications. I always wrote down the characteristics of the individuals observed and with this control I hope that my observations are not erroneous.

The characteristic juvenal Golden Eagle with a white patch at the base of the primaries and a white tail with a broad, dark terminal band was seen: on May 10, 1949, south of Ghazni; on March 3, 1949, at Baqrabad, Seistan; on October 3, 1949, at Bamian; on April 3, 1948, at Wama, Nuristan; and on May 29 and June 6, 1948, at Pashki, Nuristan. The young eagle seen at Baqrabad struck a flying crane which fell to the ground as if hit by a bullet. It was quickly picked up by a soldier who cut its throat so that the Moslim, with a clear conscience, could eat it for his dinner. At Bamian two young eagles soared over the valley mobbed by about two hundred *Pyrrhocorax pyrrhocorax*.

(54). *Aquila heliaca heliaca* Savigny – Imperial Eagle

Going by car on February 20, 1949, I saw within a few kilometres between Girishk and Dilaram several very dark eagles sitting on the ground in the steppe. It was not possible to see any characteristics of the

plumage except the very dark colour. They were presumably Imperial Eagles which SWINHOE (1882: 99) found common at Kandahar throughout the winter.

(56). *Aquila nipalensis* (orientalis Cabanis) – Steppe Eagle

On October 6, 1949, a very dark eagle was soaring for some time over one of the high-lying valleys between Bamian and Band-i-Amir. The altitude was about 3000 m. On the under side of the wing there was a very distinct light bar running in an arch from about the carpal joint to the base of the wing. According to DONALD (1952: 842) this is a distinctive feature of *nipalensis*.

(57). *Aquila clanga* Pallas – Greater Spotted Eagle

On October 10–12, 1949, I saw daily at Bamian one or two very dark eagles with yellow feet and a narrow, white patch on the rump or formed by the upper tail coverts. I think they were adults of *A. clanga*. One was seen feeding on a carrion together with *Gyps fulvus* and *Aegypius monachus*.

(59). *Haliaeetus albicilla* (Linné) – White-tailed Eagle

On March 4, 1949, I saw, at a long distance over the Hamun-i-Sabari, an eagle with a short, white tail and a light head. The identification as a White-tailed Eagle can hardly be wrong.

(60). *Aegypius monachus* (Linné) – Black Vulture

I never succeeded in collecting this species but among Griffon Vultures feeding on carrions I saw in some cases a larger and very dark, nearly black, vulture with less conspicuous ruff, these vultures were undoubtedly *Ae. monachus*. Two individuals together with about 30 Griffon and a few Egyptian Vultures were seen on May 7, 1949, in the Tarnak Valley about 30 km. north of Kandahar. Single individuals occurred: on May 23 in the mountains north of Gardez, on March 13 near Hamun-i-Sabari, on June 6 in the Shahidan Kotal, 2900 m., and on October 3 and 10 at Bamian.

(61). *Gyps fulvus fulvus* (Hablizl) – Griffon Vulture

Kabul, E Afghanistan

9. xi. 49. ♂ 17×10 wi. 692

This specimen belongs to nominate *fulvus*, not to the Indian form *fulvescens*. Some feathers taken from a vulture found dead on September 9 at Bamian are of the same colour as those in the Kabul specimen. *G. himalay-*

ensis, which may be conspecific with *fulvus*, is said by STUART BAKER (5: 14) and KIRK SWANN (1: 29) to breed as far west as Afghanistan; there seems, however, to be no authority for this statement.

The Griffon Vulture is not very numerous in Afghanistan, but I found it in most parts of the country that I visited.

Eastern Afghanistan: On January 13, 1949, two in the Lataband Kotal east of Kabul; on May 26 three were soaring over a mountain top near Tera Kotal north of Gardez; in two places below the peak were two eyries (of the vultures?). Nuristan: Single individuals were seen on June 5 and July 24–25, 1948, at Pashki; on June 19 at Stiewe; and half a dozen on August 4 at Gusalek.

Southern Afghanistan: On February 20, 1949, two in the steppe between Girishk and Dilaram; and on May 7 about 30 in the Tarnak Valley.

Central Afghanistan: On June 6, 1949, six at an altitude of 2900 m. in the Shahidan Kotal west of Bamian; from the beginning of September and to the beginning of October single or a few adults and young were observed on several occasions in the Bamian Valley.

Afghan Turkestan: On July 30, 1949, four between Shibarghan and Aq Chah, and on August 1 four between Tashkurghan and Haibak.

(63). *Neophron percnopterus percnopterus* (Linné) – Egyptian Vulture

Gusalek, Nuristan

4. viii. 48. ♂ 12×5 wi. 490

Darra-i-Shikari

4. vi. 49. ♀ 20×11 — 515

In the female the oesophagus was brimful of tadpoles. In the male from Gusalek the bare skin of the neck was orange yellow. The bill also yellow but with a reddish tinge; the tip of the bill whitish.

Nominate *percnopterus* is distributed from the Mediterranean countries east to Kashmir and northwestern India, while *ginginianus*, according to the literature, inhabits the rest of India and Himalaya. Afghanistan, therefore, should be within the range of nominate *percnopterus*. The colours given above for the specimen collected in Nuristan show, however, that in the populations of northeastern Afghanistan there are specimens with features characteristic of the eastern form *ginginianus*. According to length of the wing the specimen belongs, however, to nominate *percnopterus*, for HARTERT (2: 1200) measured this to 475–520 mm. while it is 443–482 mm. in *ginginianus* (STUART BAKER 5: 22). I did not notice the colours of the bill

in the specimen from Darra-i-Shikari, but in the dry skin the distal part is a dark horn and the basal part a little darker yellow than in the Gusalek bird, and the colours fully agree with those in other skins of nominate *percnopterus*.

The Egyptian Vulture breeds undoubtedly in many parts of Afghanistan since in the breeding season it is found nearly everywhere except in the highest parts of the country. During the winter parts of the Afghan populations migrate down to northwestern India.

Eastern Afghanistan: On February 28, 1948, I saw several at Darontah near Jalalabad, but none was noticed the next days when we travelled up the Kunar and Pech valleys to Gusalek where we stayed from the 24th to March 28th. During that time birds were seen only occasionally. I observed a few from March 31 to May 5 at Wama, our next camp higher up the Pech Valley, and none during the rest of the spring and summer in the more central parts of Nuristan. When we returned to Gusalek in the first week of August I saw rather many of the Egyptian and Griffon Vulture, presumably because a severe cattle disease had claimed many victims. – During the winter 1947–48 I saw only a single individual in Kabul and its vicinity (December 26), and none from medio January to medio February 1949. During May and June, 1949, it was common, and from October 23 to November 13 I observed it occasionally. – Other observations from eastern Afghanistan are Tera Kotal and Gardez on May 23 to 26, 1949.

Central Afghanistan: During the first week of June, 1949, I saw it in several localities, namely: Ghorband Valley, Darra-i-Shikari, Bamian, Shahidan-Kotal (at an altitude of 2900 m.), and on the 10th and 11th two single birds between the Unai Kotal and Panjao in eastern Hazarajat, but at Panjao none (June 12–17). When we returned to Bamian in the autumn I saw several in this valley during the first part of September, but none later. I think that they followed the large sheep herds which at that time moved from the highland to the winter quarters at Jalalabad or as far as Peshawar.

Southern Afghanistan: I saw none in Kandahar on February 18 and 19, 1949, but two single individuals when we drove over Girishk to Dilaram the following day. We saw a few again on May 6 and 7, and several on June 26 along this road. – We never noticed it at Farah and saw only two or three on the lower Farah Rud in Seistan (April 11 and 12, 1949).

Western Afghanistan: None seen at Shin Dand on June 28 to 30, 1949, but during the first week of July a few old and young birds in and

around Herat. We also saw a few single birds and pairs at Obek and at Kwaja Chisht higher up the Hari Rud Valley.

Northern Afghanistan: It is my impression that the Egyptian Vulture is more numerous in Afghan Turkestan than in other parts of the country. During the last week of July and the first of August I made the following observations: Sauzak Kotal, northeast of Herat, two pairs; Qala Nau, several adults and juvenals; Bala Murghab, a few over the valley, two soaring high up in the air together with about 30 Black Kites, disappearing up the valley; Bala Murghab-Maimana, besides single birds, about 20, most of them adults, on a refuge dump near a large village, and two in a flock of 50 to 100 Black Kites; Andkhui, a few adults and juvenals; Andkhui-Mazar-i-Sharif-Tashkurghan, occasionally single adults and juvenals; Haibak, rather common, up to a dozen adults and juvenals at the same time soaring over the town or sitting on rock walls; Danaghori Plains, several; Pul-i-Khrumri-Doab, a few seen.

Badakhshan: In the beginning of July 1948 we crossed the Hindukush and travelled down the Kokcha Valley where we saw the first Egyptian Vulture between Kachari and Parwara at an elevation of about 2200 m. From there and down to Faizabad it was rather common. I saw a pair near a niche in a conglomerate wall where they presumably had their nest. It was observed also at Zebak.

(64). *Gypaëtus barbatus aureus* (Hablizl) – Bearded Vulture

Gusalek, Nuristan

13. iii. 48. ♂ 23 × 14 we. 4¹/₂ kg. wi. 845

Wama, Nuristan

5. iv. 48 ♂ — 4³/₄ —

Iris light sulphur. Sclera blood-red. The wing span of the bird from Gusalek was 265 cm. The intestinal canals full of bone pieces. The testes were injected¹⁾ in the specimens collected on March 13.

Both specimens are adult. I have not been able to compare them with material from other parts of Asia, but most authors recognize only the subspecies *aureus*.

The Bearded Vulture is a resident or local migrant in the higher central and eastern mountain ranges. I saw two individuals on May 25, 1949, near the Saroti Kotal, southeast of Gardez, and during the winter months a few between Lataband Kotal and Jalalabad. In the valleys around Kabul, however, I never observed it.

¹⁾ For explanation see p. 62.

It was common in the Pech-Parun Valley in Nuristan, especially around the lower camp at Gusalek and Wama where single birds or a few together were daily seen patrolling the mountain slopes from the bottom of the valley to well over the tree limit. I have also several observations from Pashki and a few from Stiewe in the higher parts of the valley.

In the central ranges I saw two on June 11, 1949, and one the 12th, at Panjao in eastern Hazarajat, and during our stay at Bamian from September 6 to October 17 one or two individuals were often seen in the valley as well as at altitudes of 3500 m. There was no change in their frequency during this period. Single birds were observed further west at Obeh (a juvenal, July 13), Ardewan Kotal (July 6), and Shin Dand (June 30).

During several trips through southern Afghanistan we never saw this vulture again during our stay in Seistan and Farah, and during the long drive in northern Afghanistan from the Sauzak Kotal over Andkhui, Mazar-i-Sharif and Haibak to Doab. Only once I saw it north of the main mountain range, viz. on July 16, 1948, south-west of Sanglich in Badakhshan at an altitude of about 3500 m.

(66). *Circus macrourus* (Gmelin) – Pallid Harrier

Pashki, Nuristan

17. v. 48 ♀ 14×5 wi. (353)

Bamian, Central Afghanistan

10. ix. 49. ♂ 6×1 — 329

20. ix. 49. ♂ 6×2 — 340

21. ix. 49. ♂ 4×2 — 345

6. ix. 49. ♀ — 362

Dilaram, S Afghanistan

3. iv. 49. ♂ 13×5 — 339

♂ 8×2 — 310

Faizabad, Seistan

10. iii. 49. ♀ — 380

The female collected on March 10 is adult, all the other specimens are juvenals or subadults. Those from the spring are in badly worn plumages.

The Pallid Harrier is a passage migrant and winter visitor in Afghanistan. The juvenile female from Pashki in Nuristan was collected in the *Pinus gerardiana* forest at an altitude of 2600 m. The next day a similar bird was seen above the tree limit and on June 1 one was hunting in the valley at Pashki.

From our arrival on September 6, 1949, in the Bamian Valley and until the 29th we observed most days a few females or young birds hunting in the fields. During the last part of our stay, until October 18, none occurred.

The migration through southwestern Afghanistan seems to be rather slight for I observed only the specimens listed and three single males which, however, may have been *C. macrourus*. They occurred on March 24 and 29 on the lower Farah Rud and on April 6 at Farah.

(68). *Circus aeruginosus aeruginosus* (Linné) – Marsh Harrier

Chashma-i-Sher, N Afghanistan

5. viii. 49. ♀ 8×3 wi. 407 juv.

Bamian, Central Afghanistan

6. ix. 49. ♂ — 388 juv.

The Marsh Harrier is a local breeding bird. The only place where I think I saw it on the breeding ground was in the large reed beds at Chashma-i-Sher between Haibak and Pul-i-Khumri. Besides the juvenal female collected I saw an adult male carrying a prey (August 5). – In Seistan where it is said to breed, we never saw it, except a very maltreated female brought us on April 1 by a native.

During the spring migration of 1948 single males appeared on March 17 and 28 at Gusalek in Nuristan. At Bamian I saw only the juvenal male listed above.

(70). *Pandion haliaëtus haliaëtus* (Linné) – Osprey

GRIFFITH (1847: 456) on February 25, 1840, observed an Osprey at Pashat in the Kunar Valley which is the only earlier observation in Afghanistan. In the Pech Valley, which is a side valley to the Kunar, I observed on March 9, 1948, one flying along the river at Gusalek, and two days later I saw the same bird or another, eating its prey at the top of a dead tree trunk high up on a mountain slope.

(71). *Falco cherrug* Gray – Saker Falcon

The status of the Saker Falcon in Afghanistan is uncertain as hitherto only two specimens have been collected. Among the large falcons which I saw in the range of Bamian there were some with conspicuous light, almost white heads. I think they must have been Saker Falcons. On September 28 I saw a single of these falcons in the Cham Kotal at an altitude of about 3350 m., on the 29th and 30th a pair in the Bamian Valley, and in one of its side valleys, and finally, on October 13, a pair in one of the high valleys on the road from Bamian to Band-i-Amir. In spite of all our efforts we were not able to secure any of these birds.

(72). *Falco juggar* Gray – Laggar Falcon

Ghazni, E Afghanistan

10. v. 49. ♂ 5×3 wi. 322

24. vi. 49 ♀ 8×5 — 362 tl. 200

Both birds were collected along the road 30–40 km. south of Ghazni. They were subadults with undeveloped gonads and both were moulting their primaries and body feathers. Besides the bird collected on June 24 one or two more individuals were observed. The bird collected on this date had two lizards and some insects in its stomach.

(73). *Falco peregrinus babylonicus* Sclater – Peregrine Falcon

Bamian, Central Afghanistan

13. ix. 49. ♀ 12×5 wi. (302)

This is a typical *babylonicus* with rufous nape and narrow rufous feather edges on the upper parts. It was a subadult bird with a straight oviduct. Some body feathers and the second primary were growing. The stomach contained parts of a small bird (quail ?).

Two females collected by ST. JOHN (1889: 151) on February 5 and July 14 at Kandahar are the only specimens previously known from Afghanistan.

During our stay in the Bamian Valley we saw several times from September 13 to October 4 single Peregrines or pairs. In eastern Afghanistan we observed single individuals on May 26, 1949, at Pul Alam in the Logar Valley, and on the 30th near Kabul.

In western Afghanistan single birds were observed in July 1949 at Herat; between Herat and Islam Qala; at Obeh, sitting on the ground under a small colony of *Columba eversmanni*; and at Kwaja Chisht. It is, of course, unknown to which subspecies the birds seen in the field belonged.

(74). *Falco subbuteo subbuteo* Linné – Hobby

The Hobby is a scarce summer visitor and passage migrant which was observed twice in the Kokcha Valley in Badakhshan. I saw the first on July 6, 1948, between Azasaid and Parwara, the second flying with a prey, on the 11th at Faizabad.

EDELBERG on March 20, 1948, saw in Nuristan two crying birds which after a pursuit flight settled in a tree where they copulated. Shortly after one of them was seen carrying food.

(77). *Falco naumanni naumanni* Fleicher – Lesser Kestrel

Dilaram, S Afghanistan

3. iv. 49. ♂ 6 × 4 we. 129 wi. 228

Haibak, N Afghanistan

4. viii. 49.	♂	2 ¹ / ₂ × 2	—	131	—	—
	0		—	139	—	240 juv.
	0		—	138	—	229 juv.

The two adults from August were moulting the primaries. The specimens are identical with nominate *naumanni* from the western part of the range of distribution.

The Lesser Kestrel is known only as a passage migrant in Afghanistan. On April 3, 1949, we saw two on the steppe west of Dilaram, and on August 4 100 to 200 in small parties perched on the telephone wires along the road which runs through a broad and very dry valley between Haibak and the Paigah Kotal.

(78). *Falco tinnunculus* – Kestrela. *Falco tinnunculus tinnunculus* Linnéb. *Falco tinnunculus stegmanni* (Portenko)

a. Bamian, Central Afghanistan

12. ix. 49. ♂ 3 × 2 we. 168 wi. 221

b. Gusalek, Nuristan

24. iii. 48. ♂ 8 × 4 — 170 — 251

Wama, Nuristan

11. iv. 48. ♂ 7 × 5 — 156 — 240

Pashki, Nuristan

16. v. 48. ♂ 7 × 5 — 163 — 240

22. v. 48. ♂ 7 × 6 — — — 223

12. vi. 48. ♂ 5 × 3 — 153 — 232

Logar Valley, E Afghanistan

23. v. 49. ♂ 6 × 4 — 169 — 233 subad.

Kabul, E Afghanistan

30. v. 49. ♂ 4 × 3 — 160 — 252

Bamian, Central Afghanistan

9. ix. 49. ♀ 7 × 4 — — — 255

Obek, W Afghanistan

16. vii. 49. ♀ 8 × 5 — 211

Sauzak Kotal, W Afghanistan

22. vii. 49. 0 — 181 — 243 juv.

0 — 165 — 253 juv.

The stomach contents of three specimens were rodents and grasshoppers.

The male collected at Bamian belongs to nominate *tinnunculus*. All the other males differ from Scandinavian males by their paler upper parts and absence of the vinaceous tinge. There is some variation, but the most typical specimen agrees with one collected on April 5, 1935, at Kulmahak in western Iran, which STEGMANN found to belong to *stegmanni* (cf. PALUDAN 1938: 628).

One of the unsexed juveniles from the Sauzak Kotal has dark upper parts as in nominate *tinnunculus*. In the other specimen—as well as in the two females—the upper parts are decidedly lighter than in females from Scandinavia.

As far as can be judged from the present knowledge nominate *tinnunculus* is a passage migrant while *stegmanni* is both a passage migrant and a breeding bird of at least parts of Afghanistan.

Nuristan: I saw the first Kestrel on March 14 at Gusalek after which date it was seen daily. By the end of March it occurred in pairs which performed display flights. It was also common higher up the Pech-Parun Valley at Wama and Pashki where it occurred from the bottom of the valley up to well over the border of the forest. During the latter half of June I saw only two individuals at Stiewe which is situated above the forest.

Eastern Afghanistan: There was no Kestrels at Kabul during the winter and only few in summer. As early as February 19, 1948, we saw one in the Sarobi Valley between Kabul and Jalalabad, but we did not see any in the valleys between Kabul and Kandahar on February 18–19, 1949, and only a few on May 7, whereas it was rather numerous on June 25. From May 23 to 26 a few were observed at Tera Kotal and Saroti Kotal in the province of Gardez.

Central Afghanistan: It was observed on June 2, 1949, at an altitude of 2700 m. in the Shibar Kotal and on June 6 at 2900 m. near the Shahidan Kotal and in the middle of the month several times in eastern Hazarajat between Farakulum and Panjao. Every day during our stay at Bamian from September 6 to October 17 we saw from one to half a dozen resting birds, but visible migration was never noticed.

Southern Afghanistan: On February 20 we saw one near Kandahar, and on March 4 and 20 single birds on the lower Farah Rud in Seistan where the passage must be very slight.

Western Afghanistan: Between June 28 and July 20, 1949, it was occasionally seen at Shin Dand, Herat, Ardewan Kotal, and Kwaja Chisht. At Obek I observed it every day, and on July 22 there were several in the Sauzak Kotal.

Northern Afghanistan: On our journey through Afghan Turkestan by the end of July 1949 we observed it occasionally between Qala Nau and Bala Murghab and east of Mazar-i-Sharif; at Haibak we saw only a single bird on August 2–3. During the first half of July 1948 we observed it in several localities in the Kokcha, Warduj and Sanglich valleys (Badakhshan). A nest in a conglomerate wall at Azasaid contained young on July 6.

(79). *Ammoperdix griseogularis griseogularis* (Brandt) – Seesee Partridge

Qala Bist, S Afghanistan

4. v. 49. ♀ laying we. — wi. 129

Tarnak Valley, S Afghanistan

7. v. 49. ♂ 13×6 — 205 — 135

Obeh, W Afghanistan

13. vii. 49. ♂ 13×8 — 200 — 132

♀ laying — 205 — 124

I have not been able to compare these specimens with nominate *griseogularis* but with 3 males and 3 females of *termeuleni* from southwestern Iran (PALUDAN 1938: 637). The Afghan males are more greyish, especially, on the grey-and-white spotted feathers of the sides of the neck. In the Afghan birds the colour is dark ashgrey, in the Iranian paler and caudally with an increasing brownish tinge. In the Afghan females the flanks are more heavily vermiculated, and the upper parts are greyer. These differences correspond with the distinction between *griseogularis* and *termeuleni*.

MARIEN (1951, Am. Mus. Nov. 1518: 6) also refers the specimens collected by KOELZ in southern Afghanistan to nominate *griseogularis* whereas the populations in northwestern (and northern?) Afghanistan, north of the main mountain range, belong to *peraticus* (KOELZ 1950, Am. Mus. Nov. 1452: 1, type locality: Burchao Kotal, Bend-i-Turkestan) which closely resembles *termeuleni*.

The Seesee is widely distributed in Afghanistan but nowhere numerous. In the following I give all my observations. On May 5, 1949, I collected between Qala Bist and Laskari-Bazar, south of Girishk, a female out of a pair. It had an egg in its oviduct. Two days later I saw two pairs in the Tarnak Valley, 30–40 km. south of Kala-i-Ghilzai. On July 13 I collected a pair above Obeh at an altitude of 1700 m. In spite of the late date and the moulting of the body feathers the female had an egg in its oviduct. In Afghan Turkestan I found the Seesee twice, on July 24 a female with over a dozen quite small chicks at Miana Bam on the Murghab, and on the 27th two pairs at Maimana. On June 2 I observed a pair in the Darra-i-

Shikari and on September 22 three individuals in the valley south of Aq Ribat. And finally, I saw a single bird on February 19, 1948, between Sarobi and Jalalabad where the Kabul river passes through a narrow valley.

(80). *Tetraogallus himalayensis himalayensis* Gray – Snowcock

During the winter months of 1948 I tried to buy some Snowcocks in the bazar of Kabul. But I was told that they did not come on the market until April as they were hunted only during the breeding season. Presumably, they are too difficult to get hold of outside this season.

I tried in vain for a long time to find it in Nuristan. On April 15 and 16, 1948, however, I went out with two men from the village Wama and our Afghan cook with the purpose to hunt markhors in some remote valleys. During this excursion, on which I did not see any markhor, we came to places where the Snowcock was rather numerous, and afterwards I regretted very much that the unsuccessful markhor hunting prevented collecting of some of these birds. We saw the first covey of about a dozen birds on a steep hillside where they were searching for food on a patch with burned off grass. The altitude was about 2200 m. Next we came to a narrow valley which we followed upwards along a path on the almost vertical hillside. There were numerous rock ledges, and small oaks grew everywhere where they could find a foothold. In this habitat the Snowcock was rather numerous. Single birds or a few together flew out from the ledges and went downwards on stiff wings to ledges on the opposite side of the valley. The grey upper parts, the white wing tips, and the dark under parts gave a very characteristic picture of the birds.

I heard three different notes from the birds: (a) The alarmed birds uttered a cry which may be compared with that of a Blackbird alarmed by a cat. I was very surprised when I found out that this sound came from the Snowcocks. (b) During the flight it utters a very characteristic trill which to some extent reminded me of the trill of *Numenius arquata*. The trill was heard not only while the birds rose but all the time they sailed down the valley. (c) After having arrived at the new ledges they called each other with a whistling, not quite unlike the call of *Charadrius hiaticula*.

On May 18 I saw it once more in Nuristan, namely two birds in the *Juniperus* zone above Pashki, at an altitude of 3500 m.

On June 5, 1949, I saw a covey of five in a small side valley at Bamian. The altitude was between 2700 and 2800 m. In September–October I searched for it in vain at Bamian until October 16 when I went up to the main mountain ridge to the north. There, a little lower than 4000 m., I

found three coveys of 3, 6 and 10 birds in a landscape where hill slopes grown with cushion plants changed with vertical rock walls. The birds, however, were so wary that I never had them within range.

(81). *Alectoris graeca* – Chukor

a. *Alectoris graeca falki* (Hartert)

b. *Alectoris graeca chukar* (Gray)

a. Darra-i-Shikari, Central Afghanistan

2. vi. 49. ♂ 17×10 wi. 169

♀ 9 — 161

♀ 3 — 160

Obeh, W Afghanistan

11. vii. 49. ♂ 10×4 — 162

♀ 10×5 — 156

♀ 11×5 — 156

b. Pashki, Nuristan

5. vi. 48. ♂ 23×10 — 166

11. vi. 48. ♂ 24×15 — 170

Stiewe, Nuristan

25. vi. 48. 0 pullus

Until now three subspecies have been suggested to occur within Afghanistan, i.e. *falki* (central and northern parts), *pallida* (or *pallescens*, Wakhan), and *koroviakovi* (southern parts). My specimens without any doubt belong to two very different subspecies, the birds from Pashki in Nuristan being much darker than the six other birds. These last birds collected during June and July in the Darra-i-Shikari and in the Hari Rud Valley are slightly paler than three June specimens of *shestoperovi* (type locality: Kopet Dagh) collected at Abr in northeastern Iran (PALUDAN 1940: 53), but on the other hand, they are far from being as pale as the three topotypical *werae* collected during April and May at Bishe Porem in Luristan, western Iran. These six Afghan birds may therefore belong to *koroviakovi* (type locality: eastern Iran). MEINERTZHAGEN (1938: 715) found, however, that his birds from central Afghanistan had less vinous on the head and a slightly paler mantle than this subspecies and he therefore referred his series to *falki* (type locality: Russian Turkestan) which name I prefer to use for the populations in central and western Afghanistan until much more comparable material is available.

In the two males from Nuristan the grey colour of the upper parts is considerably darker and the vinous of the mantle much more strongly developed than in all the subspecies mentioned above. Dr. Vaurie has compared them with the material in the American Museum and he found

them to belong to *chukar* (type locality Nepal) which inhabits the Himalayas as far east as Nepal. They are slightly paler than the majority of a long series of *chukar* but they are identical with some specimens from northern Punjab.

Eastern Afghanistan: In the bazar of Kabul the Chukor was often offered for sale, and in this town, as everywhere in the country, it was much estimated as a cage bird. On June 19, 1949, I heard a few at Sar-i-Chashma in the Maidan Valley southwest of the capital, which is my only observation from this part of the country.

In Nuristan I often observed it around all our camps in the Pech-Parun Valley, but, except the valley with the Snowcocks, it was nowhere numerous. It occurred in suitable open places from the bottom of the valley through the forest up to the *Juniperus* zone. The greatest altitude at which I saw it was just below 4000 m. On our arrival by the end of February they were already in pairs even though a covey of 5 to 6 birds was seen as late as on April 16. On June 23 I walked on a steep slope grown with *Artemisia* and suddenly stood in the middle of a family party consisting of an old bird with numerous small chicks weighing only about 14 g. The chickens ran to all sides and hid among the vegetation while the adult put on a most convincing display of injury feigning, flapping and limping along. On July 25 I saw above Pashki at an altitude of 3600 m. a covey with nearly full-grown young.

Central Afghanistan: The three specimens collected on June 2 in the Darra-i-Shikari were the only ones observed there. The sex organs of the two females were rather large, although far from the maximum size. We never observed the Chukor in June between the Unaï Kotal and Panjao, eastern Hazarajat, and never during our long stay at Bamian in the autumn.

Western Afghanistan: On July 9 we found a few Chukors in a low tamarisk scrub at Tirpul west of Herat and in the middle of the month two or three coveys of 8–10 individuals in the side valley at Obeh at altitudes from 2000 to 2200 m. All the birds collected there were moulting their body feathers.

Northern Afghanistan: We never observed it during our trip in July 1949 through large parts of Afghan Turkestan but during the same month of 1948 we saw it occasionally in the Kokcha Valley down to Jurm, and at Sanglich. On the 5th and 15th there were family parties with quite small chicks.

The Chukor seems to have decreased considerably since the last century. We travelled for months without seeing a single bird and nowhere did it occur as numerously as described in the older literature.

(82). *Francolinus francolinus bogdanovi* Sarudny – Black Partridge

Synonym: *Francolinus francolinus festinus* Koelz, Contr. Inst. Regional Expl. 1:30 (1954 – Girishk).

On March 18 and 24, 1949, we saw a few Black Partridges in the few remains of the tamarisk jangal in the estuary of Farah Rud, and on April 17 two in the fields around Faizabad where they may have been driven up from the now inundated areas further down the river.

(83). *Coturnix coturnix coturnix* (Linné) – Quail

Bamian, Central Afghanistan

2. x. 49. ♀ 5×4 we. 91 wi. 110

The Quail is widely distributed as a breeding bird in Afghanistan but it seems nowhere to be numerous.

Southwestern Afghanistan: Up to our departure from Seistan on April 21 we observed no passage and did not hear its voice from the fields around the villages.

Western Afghanistan: From June 28 to 30, 1949, we heard it several times around Shin Dand. In the main Hari Rud Valley we heard it once in the first week of July at Herat, and several times on the 16th and 19th from the fields at Obeh and Kwaja Chisht.

Central Afghanistan: During the breeding season I heard it on June 2, 1949, at Siah Gird in the Ghorband Valley, and on the 5th at Bamian. During the autumn I here found the first Quail on September 13 in the stomach of a Peregrine. On the 16th I observed the first in the field and from then until October 13 we saw a few on most days, but we never observed a heavy influx.

Eastern Afghanistan: On June 24, 1949, we heard it north of Mukur. In Nuristan it was never observed.

Northern Afghanistan: In Afghan Turkestan I heard it during the last week of July 1949 at Bala Murghab, Maimana and Andkhui, and in Badakhshan on July 14, 1948, at Zebak.

At Bamian I had the opportunity to see a party hunting Quails. They placed a net covering the end of a narrow cornfield and a few metres of it. Two men, one on each side, walked down along the field from the opposite end dragging a rope through the corn and in this way drove the Quails into the net. Another way of hunting was also used. The fowler went out

very early in the morning to a place where he expected the quails to come. He had with him a tame quail the voice of which decoyed the wild birds near enough to be noosed.

(84). *Lophophorus impejanus* (Latham) – Monal

Kurder, Nuristan

2. iii. 48. (♀) wi. 273

This specimen, of which only the head and wings were preserved, is the first brought to a museum from Afghanistan. I got it from a native hunter who had bagged it in the coniferous zone above Kurder in Nuristan. It was a few days after we had started collecting, so our Afghan cook had not yet got accustomed to the funny way I treated the birds. When I looked for the Monal in order to skin it, I found the cook busy at work plucking the last feathers of my precious bird.

Information about the Monal in Afghanistan was hitherto given only by GRIFFITH (1847: 457) and WARDLAW-RAMSAY (1880: 70). The former writes: "A Monaul pheasant, or some similar splendid bird is found in the snows of Kafirstan, all I have seen of it are a few feathers." The latter author was told that there were plenty of Monals in Safed Koh on the east border of Afghanistan.

My first misfortune with the Monal was not the only one. I saw it later and especially heard it on several occasions in Nuristan without being able to bag it. Its whistling call: 'lü-dü, 'lüdü could be heard at a long distance, but was very difficult to locate. Sometimes I climbed for hours the steep hill sides following this call thinking that the bird was just ahead, but, usually, I never found it; in a few cases, however, it took to the wings, but at a moment and in a direction I did not expect. I then had the doubtful pleasure to see a glimpse of the beautiful bird disappearing down a ravine.

On March 10 I saw three large brown gallinaceous birds in the deodar zone above Gusalek, they were, presumably, female Monals. Two males were seen in the Snowcock valley visited on April 16, and in our camp in the bottom of the valley at Pashki I heard its call note occasionally from the wooded hill sides. It occurred to the upper border of the forest at an altitude of about 3000 m.

The Nuristani sometimes preserve the head of the Monal because of its beauty, and in one case I saw it used as a hat decoration. As the hunting of this and other large gallinaceous birds took more time than I could spare, I offered a price for them which, however, did not help to bring me any bird.

(85). *Pucrasia macrolopha castanea* Gould – Koklas

Pucrasia castanea Gould, Proc. Zool. Soc. London 1854: 99 (1855 – Kafiristan)

Gusalek, Nuristan

22. iii. 48. (♀) wi. 228

Wama, Nuristan

24. iv. 48. ♂ — 252 tl. 232

The male differs from one of nominate *macrolopha* by the much more extended chestnut colour which includes the whole under parts, changes into dark brown on the belly. I have not had the opportunity to compare the male with *biddulphi*, and no females were available for comparison.

The types of *castanea* were brought to GRIFFITH (1847: 466) by native hunters when he stayed at Chigha Sarai. He sent them to the collection of the East India Company from where they came to the British Museum. For discussion about the type see Ibis 1878: 125 and Catalogue of Birds in British Museum 22: 314.

I bought the female from a hunter who said that he had shot it in the coniferous forest above Murchal not far from Gusalek. During my excursions in the mountains around Wama I heard a few times a hoarse crow reminding of that of the domestic hen. On April 24 I heard it several times in a place with breast-high scrub surrounded by forest of oak and deodar, and here I bagged the only Koklas I ever saw.

(86). *Phasianus colchicus* – Pheasant

a. *Phasianus colchicus principalis* P. L. Sclater

Phasianus principalis P. L. Sclater, Proc. Zool. Soc. London 1885:322 (1885 – Bala Murghab)

b. *Phasianus colchicus bianchii* Buturlin

We did not find a pheasant in Afghanistan although we visited several localities where it was common in earlier days. The Prince of Wales's Pheasant (*principalis*) is known from the Hari Rud, Tejend and Murghab valleys. The first record of Pheasants in western Afghanistan we owe to HUTTON (1847: 782) who got a specimen from Herat where it was said to be common. YATE (1888: 45, 49) found no Pheasants around Robot-i-Afghan west of Herat in the Hari Rud Valley. A little farther down the valley, at Kuhsan, however, "... the best fun was the new experience we had of shooting Pheasants off horseback." I did not visit Kohsan itself but Tirpul, a few miles higher up the valley. For three hours we walked there through the extensive, however open and only about one metre high, tamarisk scrub along the river without finding any Pheasants.

My search for Pheasants along the Murghab in Afghan Turkestan was just as unsuccessful although the members of the Afghan Boundary Commission in 1884–87 (SCULLY 1887: 86; YATE 1888: 112; AITCHISON 1889: 86) found it to be exceedingly numerous between Bala Murghab and the border. On July 24 we drove about 40 km. down along the river to Bala Murghab. The only habitat where Pheasants could be expected was a tamarisk scrub but no bird was seen. The next day I searched the vicinity of the town and found nearly all the valley under cultivation, and I could find no area with reed beds or tamarisk scrub. The country has undoubtedly changed very much since 1885 when the province of Badghis “. . . was the home of wild pig and the pheasants, and hardly a man dared to show his face in it. The few inhabitants it possessed had only just arrived, and the country was mostly a waste, the hunting ground of Turkoman raiders.” (YATE 1900: 22). In 1893 already, when YATE revisited the province, the change was in rapid progress.

On July 26 we went up the Qala Wali Valley where YATE (1888: 124, 125, 129, 207) at Shukr Guzar, Bokun (= Bokan) and Chahar Shamba found many Pheasants, we, however, found no tamarisk scrub, no reed beds, or any other habitat where a Pheasant could be expected. I think that all the suitable habitats at the time of YATE's journey are now cultivated areas.

The other Afghan subspecies, Bianchi's Pheasant, inhabits the country on both sides of the upper Amu Darya. To the south it is known from the Danaghori Plains where YATE (1888: 326) in 1886 went Pheasant shooting at Chashma-i-Sher, and where MEINERTZHAGEN in 1937 collected a series. The three specimens mentioned by WHISTLER (1945: 467) were collected by MACONACHIE on October 26, 1934, at the same locality (R. W. SIMS in lit.). On August 5, 1949, I visited Chashma-i-Sher with its very extensive reed beds. For hours we walked through water and mud without finding as much as a Pheasant feather. We found no other locality with reed beds or scrub suitable for Pheasants between Chashma-i-Sher, Dahana and Pul-i-Khumri. We were told that the Pheasants in this district succumbed to an extremely severe winter a few years ago. Those not killed by the weather were taken by the inhabitants of the country, and, I imagine, in the manner described by YATE (l. c.): “. . . The marvel is that any pheasants, or even chukor—the local partridge—survive at all. In the winter, as one of my guides explained to me, when the snow is fresh and a foot or more in depth, the birds all come down into the open valley in search of food, and the people turn out en masse after them. As soon as the birds are flushed a horseman gallops after them, and if he can only mark where they settle

he is certain to catch them, as they rarely fly a second time, but hide in the snow, where their tracks betray them, and they are pulled out by hand without difficulty . . .”.

MEINERTZHAGEN found this Pheasant also at Kunduz further north, and a member of the French Archaeological Mission told me that he had seen it a few years ago near the ancient Balkh.

My observations seem to show that the Pheasant had decreased disastrously in Afghanistan and that it is in great need of protection if a stock is to be kept for the future.

(87). *Grus grus lilfordi* Sharpe – Crane

The first Crane we observed was one killed by an eagle on March 3, 1949, at Baqrabad in Seistan. On the 20th at noon two flocks consisting of about 150 individuals circled over Faizabad where we also saw small parties of 5, 8, and 6 individuals on March 25 and 29, and on April 1. On March 24 there were 9 at Hamun-i-Sabari.

Outside Seistan we saw a single Crane on July 8 on the bank of Hari Rud at Tirpul, and on October 10 at Bamian.

SARUDNY (1911: 232) writes that the Cranes occurring in Seistan and Paropamisus are pale and may belong to *lilfordi*; this is most likely as the border between nominate *grus* and *lilfordi* now is assumed to run as far west as along the Wolga (HARTERT 4: 507).

(90). *Rallus aquaticus korejewi* Sarudny – Water Rail

Bamian, Central Afghanistan

14. x. 49. ♂ $3 \times 1\frac{1}{2}$ we. 138 wi. 128

I have not been able to compare this specimen with material of *korejewi*, but it differs in every respect from nominate *aquaticus* as *korejewi* is stated to do. It was collected in a poplar grove which I passed nearly every day without seeing more than this single individual.

A few specimens were collected earlier in Afghanistan during October, December, January and April, but nothing definite can be said about the status of the species in this country.

(93). *Porzana pusilla pusilla* (Pallas) – Baillon's Crake

Shibar Kotal, Central Afghanistan

2. vi. 49. ♀ 9×4 we. 32 wi. 88

Bamian, Central Afghanistan, 12. ix.–9. x. 49.

Weight juv. ♂♂: 29, 36; juv. sex?: 44; 8 juv. ♀♀: 29–43 (32.1)

Wing juv. ♂♂: 92, 94; juv. sex?: 91; 8 juv. ♀♀: 86–94 (90.0)

I have not compared this series with nominate *pusilla* from other localities. As the limit between this and the European *intermedia* runs as far west as at Orenburg they undoubtedly belong to nominate *pusilla*.

On May 23, 1948, I nearly caught a Baillon's Crake which had crept into a hollow tree near our camp at Pashki in Nuristan. It was the only one seen in Nuristan.

On June 2, 1949, I walked from the road through the Shibar Kotal to some small valleys at an altitude of about 2900 m. On the bottom of these I found a narrow strip of dense, low *Scirpus* vegetation and here and there small springs. In this habitat I collected the female which was the only crake seen there. Its ovary was somewhat enlarged but contained only small follicles. Whether it was on its breeding ground cannot be said with certainty.

From September 7 to October 14, 1949, I saw this crake actually every day when I visited an inundated area in a poplar grove along the Bamian River. There appeared mostly one or two birds, but on September 30 and October 1 as many as half a dozen. Besides the eleven individuals collected I found remnants of six which presumably were killed by *Circus macrourus*.

(95). *Gallinula chloropus indicus* Blyth – Moorhen

Baqrabad, Seistan

10. iii. 49. ♂ 5×2 we. 185 wi. 166

Chashma-i-Sher, N Afghanistan

5. viii. 49. ♂ 6×3 — — 166

Both specimens have a very short wing as is characteristic of *indicus*; the wing measurements of this subspecies are 156–176 as against 170–190 in nominate *chloropus*.

In Seistan we saw only the specimen listed above, it was collected on the bank of Farah Rud. On May 4 and 5 MADSEN heard the Moorhen a few times along the Helmand River at Lashkari-Bazar south of Girishk; and on August 5 we saw several at Chashma-i-Sher; among them a single rather small young.

(97). *Fulica atra atra* Linné – Coot

Previous travellers speak about the enormous flocks of Coots in Seistan, so we were surprised to see only three individuals during all the time we spent there. They were seen on March 7 in the estuary of Farah Rud.

During our visit on May 4–5 to Lashkari-Bazar we found innumerable Coot feet below a nest with three young Eagle Owls, many of them were quite fresh, but in spite of this we never saw any Coot on the Helmand.

One of the last days in May a man in Kabul offered a dozen Coots for sale which were bagged in the vicinity of the town. We never saw a wild Coot except in the southern parts of the country.

(100). *Chlamydotis undulata macqueenii* (Gray) – Houbara Bustard

We observed the Houbara on the plains of southern Afghanistan on the following dates: on February 20, 1949, one near Girishk and a couple between this town and Dilaram; on March 29 one in the dunes between Farah Rud and the fields around Faizabad (Seistan); and on April 4 one at Dilaram.

On July 9, 1949, we saw one on the meagre steppe about 60 km. west of Herat. It is the first observation in Afghanistan during the breeding season although the species may breed in many places in the country. In the middle of April SARUDNY (1903: 69) visited the left bank of Hari Rud in the vicinity of Kafir Qala (= Islam Qala), not far from the locality where we saw the Houbara, and he says that it inhabited the plains there abundantly.

(102). *Haematopus ostralegus longipes* Buturlin – Oystercatcher

I observed a single Oyster-Catcher on April 8 and 12, 1949, on the bank of Farah Rud near Baqrabad in Seistan, and on July 4 and 5 on the bank of Hari Rud near Herat. The status of these birds is uncertain but they did not behave as birds on their breeding ground.

The only previous record from Afghanistan is the remark made by BLYTH (HUTTON 1847: 789) that BURNES procured it. The subspecies occurring in Afghanistan is undoubtedly *longipes* which mostly is an inland form, breeding from the Black Sea to western Siberia and south to Amu Darya and perhaps to Tejend and Murghab just north of the Afghan border (SARUDNY after GROTE 1931: 348). It is said to be a winter visitor to the whole of the Makran Coast (TICEHURST 1927: 82).

(103). *Chettusia leucura* (Lichtenstein) – White-tailed Lapwing

Lower Farah Rud, Seistan

26. ii. 49.	♂	6×3	wi. 180
11. iii. 49.	♂	5×3	— 175
11. iv. 49.	♀	11×6	— 174 we. 107

Feet strongly lemon coloured. In the female the largest follicle measured 2 mm. in diameter, and the oviduct was only slightly enlarged.

We saw the White-tailed Lapwing only in Seistan, and only in very small numbers. On February 26 and March 4, 1949, there were a pair and

a single bird in the estuary of Farah Rud, and on March 11 and April 11 four and three birds at inundations in the steppe near Baqrabad. There were no signs of the birds being on their breeding ground. SARUDNY (1900: 470), however found it to be a very numerous breeding bird in the Persian parts of Seistan.

(106). *Lobivanellus indicus aigneri* Laubmann – Red-wattled Lapwing

Herat, W Afghanistan

2. vii. 49.	♂	5×2	we. 188	wi. 240
4. vii. 49.	♂	7×3	— 196	— (220)
5. vii. 49.	♀	2×1	— 182	juv.
20. vii. 49.	0		— 75	pull.

The two adults are typical *aigneri*.

We found the Red-wattled Lapwing only in the southern and western parts of the country. On May 5, 1949, we saw a few on mud banks in the Helmand at Lashkari-Bazar south of Girishk, and on March 27 a single bird at Faizabad in Seistan. During April we observed occasionally a few on the banks of Farah Rud at Farah, and on June 29 a single bird and a pair in a meadow along the river at Shin Dand.

By the beginning of July it was very common and breeding in a similar habitat along Hari Rud at Herat. In this valley it occurred also at Tirpul and Obek. On July 20 we found a pair with a not fledged young in a very arid part of the valley and far away from the river.

The alarm call I noticed as: 'kredeedēer, 'kredeedēer, and if more excited: krededeedēer, krededeedēer.

(108). *Charadrius dubius curonicus* Gmelin – Little Ringed Plover

Faizabad, Seistan, 31. iii. – 20. iv. 49.

Weight	♂♂: 42, 42; ♀♀: 32, 34, 39
Wing	♂♂: 115, 117, 120; ♀♀: 108, 117, 118.

Shin Dand, W Afghanistan, 28.–29. vi. 49.

Weight	6 ♂♂: 30–35 (32.8); ♀♀: 30, 31
Wing	6 ♂♂: 111–119 (115,5); ♀♀: 112, 118

Herat, W Afghanistan, 2.–5. vii. 49.

Weight	♂♂: 32, 32; ♀♀: 30, 30, 31, 31
Wing	♂♂: 113, 116, 117; ♀♀: 113, 113, 114, 118

Panjao, Central Afghanistan, 12.–16. vi. 49.

Weight	♂♂: 35, 37; ♀♀: 30, 34
Wing	♂♂: 116, 118; ♀♀: 116, 117

TICEHURST (Ibis 1923: 654) gives the following wing measurements for the Indian subspecies, *jerdoni*: ♂♂ 108–110, ♀♀ 108–110,5, and HARTERT

(3: 1536) gives for *curonicus* 111–119. My specimens therefore seem to belong to *curonicus*, with the exception of a female collected on April 20 in Seistan, which has a wing length of only 108 or as in *jerdoni*. This specimen could be supposed to represent the breeding subspecies in Seistan while all the other birds from this locality were migrants, which they probably also were. It is, however, most unlikely that *jerdoni* breeds in Seistan, for, according to TICEHURST (Ibis 1934: 112, footnote) *curonicus*, and not *jerdoni*, is the breeding form of northern Baluchistan. More material from these regions, however, is desirable before this question can be finally settled.

All the birds are adults. The gonads in the birds from June and July are in regression; most developed they are in a female collected on June 16 at Panjao, in which the largest follicle had a diameter of $1\frac{1}{2}$ mm., and the oviduct still had a considerable size. The birds collected by the end of June and the beginning of July were in the postnuptial moult.

The Little Plover is both a summer visitor, a passage migrant, and a winter visitor to Afghanistan.

Southern Afghanistan: On March 17, 1949, the first few migrants appeared at some pools in the steppe on the Lower Farah Rud, and on the 31st we saw 20–25 on the banks of the river near Faizabad. During April they were mostly in pairs, and their trilling courtship call was often heard. Whether it breeds in Seistan I cannot say, but CUMMING collected a specimen at Kuhak as late as May 9, and he was sure that the bird bred there.

It probably breeds in many places in southern Afghanistan, where we observed it in the breeding season on the banks of the Helmand (on May 4–5 at Lashkari-Bazar, and on the 6th at Girishk) and of the Khash Rud (on May 27 at Dilaram).

Western Afghanistan: We found it on June 28–30 to be rather numerous along the Adraskan river at Shin Dand. They were in pairs or 3 to 4 birds together. Although all the birds collected were adults and moulting and no young or nests could be found, I think, however, that they were on their breeding ground. This seemed also to be the case in the Hari Rud Valley, where on July 2–5 we found it to be common at Herat and saw a few birds or pairs on the 9th at Tirpul, on the 16th at Obeh, and on the 19th at Kwaja Chisht.

Central Afghanistan: On June 4, 1949, we found a few individuals in the narrow meadows in some parts of Darra-i-Shikari. They behaved as if they were on the breeding ground. By the middle of the month there were several pairs along the river at Panjao in Hazarajat.

During our stay at Bamian from September 6 to October 17 we observed

no passage but saw occasionally a few birds, namely a single one on September 28 at Band-i-Amir, two on October 2 at Bamian, and a pair on the 6th in the Shahidan Valley.

Eastern Afghanistan: On May 25 we saw a single bird at a brook above Usman Khel, east of Gardez. It neither occurred on the banks of the lake Ab-i-Istada nor in the narrow valleys of Nuristan. It seemed to prefer the broad river beds with stone reefs and islets and banks grown with short grass.

Northern Afghanistan: During the last week of July 1949 we saw a few single birds along the rivers at Qala Nau, Bala Murghab, and Maimana, and on August 5 at Pul-i-Khrumri.

In Badakhshan we saw pairs on July 2 and 15th at Schah-i-Pari in the Kokcha Valley and at Zebak. When we returned on the 17th to Schah-i-Pari we found a single bird in just the same place where we had seen the pair. This, in connection with the behavior of the birds, showed that the birds undoubtedly were on their breeding ground.

(109). *Charadrius alexandrinus alexandrinus* Linné – Kentish Plover

Hamun-i-Sabari, Seistan, 24.–31. iii. 49

Weight ♂♂: 37, 39, 39, 39, 39; ♀♀: 38, 39

Wing ♂♂: 105, 107, 109, 110, 114; ♀♀: 107, 110, 110

Ab-i-Istada, E Afghanistan, 9. v. 49.

Weight ♂♂: 38, 40

Wing ♂♂: 107, 114

The series agree with Scandinavian specimens. The testes of the birds collected in Seistan were small, from 4×2 to 5×3 mm. In one of the females the ovary and the oviduct were obviously enlarged; one of the follicles measured 3 mm. In the males collected at Ab-i-Istada the testes were much enlarged (8×5) and injected.

We found the Kentish Plover to be rather numerous in Seistan, presumably as a winter visitor or passage migrant. On March 24, 1949, several flocks, consisting of up to half a hundred individuals, were feeding on the banks of Hamun-i-Sabari, and on the 26th and 29th we saw some smaller flocks there. We also observed a few birds on March 29 and 31 and April 8 on the river banks near Faizabad.

On May 9 we found a few on the banks of the lake Ab-i-Istada. One of the males collected came running through the short vegetation on its way to the lake. A search for the nest gave no result. The habitat, the season, and the state of the gonads and brooding patches, however, gave evidence of the breeding of the Kentish Plover in this locality.

(111). *Charadrius leschenaultii* Lesson – Large Sand Plover

Nil Kotal, Central Afghanistan

6. vi. 49. ♂ 5×3 we. 73 wi. 141

The only previous record of the Large Sand Plover is a male collected (in February) 1896 at Shorawak in southern Afghanistan (FINN 1896: 567; WHISTLER 1945: 474). On June 6, 1949, we tried to go by jeep from Bamian through the Nil Kotal to Band-i-Amir but were stopped by the muddy roads. At an altitude of 3100 m. we had an accident and at the same time encountered a snow shower. While this was going on two Large Sand Plovers alighted at a small pool just near our party. Unfortunately, I got only one of the birds, a male, the slightly enlarged gonads of which do not indicate whether the birds were on their breeding ground or not.

(112). *Numenius arquata arquata* (Linné) – Curlew

There are very few records of the Curlew in Afghanistan, and I saw it only once, namely a party of five birds on March 30, 1949, on the bank of Hamun-i-Sabari.

(114). *Tringa totanus* subsp. ? – Redshank

On March 7, 1949, I saw a party of half a dozen Redshanks in the estuary of Farah Rud in Seistan; on May 9 a few on the banks of Ab-i-Istada; and on July 15, 1948, a single bird between Zebak and Sanglich in Badakhshan. The birds at Ab-i-Istada were silent, and nothing in their behavior indicated whether they were on their breeding ground. The same was the case with the bird at Sanglich.

(117). *Tringa ochropus* Linné – Green Sandpiper

Faizabad, Seistan

12. iv. 49. ♂ 4×3 we. 64 wi. 142

27. iii. 49. ♀ 2 — 91 — 143

Herat, W Afghanistan

4. vii. 49. ♀ 5×4 — 78 — 142

5. vii. 49. ♀ 6×4 — 57 — 143

Bamian, Central Afghanistan

12. ix. 49. ♂ 2×1 — 72 — 146 juv.

Wama, Nuristan

11. iv. 48. ♂ — — — 143

Weran Valley, Badakhshan

21. vii. 48. ♂ 3×2 — — — 144

Qala Nau, N Afghanistan

23. vii. 49. ♂ 3×1¹/₂ — 77 — 139

All the birds are in summer plumage, except the male collected on September 12 which is moulting the juvenal plumage.

Southwestern Afghanistan: We saw only few Green Sandpipers during the time of migration in Seistan, the first six specimens on March 17, 1949, at a small pool on the steppe near Faizabad. From this date and until April 16 we occasionally observed single birds or pairs in the district, and on April 3 four birds west of Dilaram.

Western Afghanistan: From July 2 to 19 we saw a few at Tirpul, Herat, Obeh, and Kwaja Chisht in the Hari Rud Valley. They were found in meadows and tamarisk scrub along the river. An examination of the sex organs of the two females collected revealed that the ovaries were small and the oviduct slightly enlarged as in birds just after the breeding season.

Central Afghanistan: There was only a slight migration during the time we spent at Bamian, a few single birds being observed during the first half of September.

Eastern Afghanistan: On February 20, 1948, I saw two birds at Darontah west of Jalalabad. The spring migration through the Pech-Parun Valley in Nuristan was very weak for I made only two observations, namely of two birds on April 11 at Wama, and of three on May 12 at Pashki.

Northern Afghanistan: Having crossed the Hindukush on June 29 through the Weran Kotal we came to a small lake at an altitude of about 3700 m. There we flushed four Green Sandpipers from a small grassy area. When on July 21 we returned to the same place three birds were seen again. From July 1 to 5 we saw occasionally single birds down along the Kokcha until north of Parwara, and also from the 14th to the 20th through the Warduj, Sanglich and Weran valleys.

In Badghis we found on July 23, 1949, a party of half a dozen birds along the river at Qala Nau. The bird collected was very fat.

I never found any evidence of any of the birds being on their breeding ground, and even the birds from the middle of May and the beginning of July may very well have been migrants.

(118). *Tringa glareola* Linné – Wood Sandpiper

Bamian, Central Afghanistan

8. ix. 49.	♀	4×2	we. 46	wi. 126 juv.
10. ix. 49.	♀	3×2	— 52	— 123 juv.
12. ix. 49.	♀	4×4	— 58	— 127
29. ix. 49.	♀		— 59	— 129

A slight migration of the Wood Sandpiper took place on September 8–30, 1949, at Bamian. On most days I saw only one or two birds but half a dozen on the 12th.

(119). *Tringa hypoleucos* Linné – Common Sandpiper

Pashki, Nuristan

15. v. 48.	♂	6×4	we. 40	wi. 109
12. v. 48.	♀	3	— 51	— 112
16. v. 48.	♀	3	— 46	— 111
31. v. 48.	♀	4	— 45	— 113

Panjao, Central Afghanistan

13. vi. 49.	♂	5×3	— 40	— 106
15. vi. 49.	♂	5×3	— 46	— 109
12. vi. 49.	♀	4	— 56	— 114

Bamian, Central Afghanistan

6. ix. 49.	♀	4×2	— 44	— 112 juv.
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Faizabad, Seistan

10. iv. 49.	♂	5×3	— 42	— 114
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They are all in summer plumage, except the male collected on April 10, which is in winter plumage, and the female from Bamian, which is immature.

Eastern Afghanistan: On February 20 to 21, 1948, we saw a few along the Kabul River near Jalalabad. In the Pech Valley we saw the first migrants, a single bird and a pair, on April 21 at Wama, and there again a single bird on the 30th. During the last half of May and the first half of June there were many pairs along the river in the comparatively broad valley at Pashki. Undoubtedly, the birds were here on their breeding ground. The sex organs of the birds collected were enlarged, especially in the female from May 31, but laying seemed still not to have commenced at the end of this month. We often heard their trilling courtship call: *tjee-tjee-tjee-tjee-tjee*, and the birds pursued each other and performed a courtship flight with fast whirling wings. There were also a few pairs at Stiewe (altitude 2600 m.), where on June 19 I found a nest which contained four fresh eggs. It was placed under a flat stone in a clearing in a willow scrub along the river. It was lined with short, dry plant stems.

Migrants were seen on May 9, 1949, between Mukur and Ab-i-Istada and on the banks of this lake.

Central Afghanistan: In the middle of June, 1949, we observed a few pairs in willow scrub along the river at Panjao. They behaved as if they were on their breeding ground, and in the female collected on June 12 the sex organs were considerably enlarged.

At the beginning of June we saw a few along the Surkhab near Doab, and during September occasionally at Bamian.

Northern Afghanistan: On June 29 and July 21, 1948, we saw a single bird at an altitude of 3700 m. on the bank of a small lake in the Weran Valley, Badakhshan, and on July 14 and 15 a few between

Zebak and Sanglich. Nothing definite can be said about the status of these birds.

On July 25, 1949, we saw a pair at Bala Murghab.

Southern and western Afghanistan: We observed very few migrants in Seistan, the first one on March 9 and then none until April 10 to 17 when we saw a few again. Presumably also the birds seen on May 3 between Dilaram and Girishk, on the 4th and 5th at Lashkari-Bazar, and on July 16 at Obeh in the Hari Rud Valley were migrants.

(120). *Capella solitaria solitaria* (Hodgson) – Solitary Snipe

Bamian, Central Afghanistan

9. x. 49.	♂	2×1	we. 139	wi. 162
3. x. 49.	♀		— 149	— 168
13. x. 49.	♀	6×3	— 152	— 161

I saw from one to three Solitary Snipes on September 29 and October 3, 9, 10, and 13, 1949, in a poplar plantation along the river at Bamian. If alarmed they tried to crouch or to steal away to a hide and behaved in this way rather differently from the Common Snipe. The rufous subterminal tail band is very conspicuous in the rising bird. The birds flushed flew only a short distance before they dropped again.

There are a few other records during the autumn, winter and spring from eastern Afghanistan so it seems to be a fairly common off-season visitor. Where these birds breed is, however, not easy to say, unless there are some unknown breeding places not too far away for it is usually supposed not to undertake a regular migration, but merely to move to lower altitudes during the winter. The known breeding range includes the high mountains of central Asia from Tarbagatai south to Tian Shan and Himalaya, and east to Koko Nor. Tadjikistan and the most western parts of Himalaya are not included.

(121). *Capella gallinago gallinago* (Linné) – Common Snipe

On March 25 and 26, 1948, I saw a single Common Snipe in the fields around Gusalek in the Pech Valley, Nuristan; and from September 7 to October 17, 1949, I observed on most days a few up to a dozen birds in a poplar plantation in the Bamian Valley. They were presumably resting birds.

(124). *Crocethia alba* (Pallas) – Sanderling

Ab-i-Istada, E Afghanistan

9. v. 49.	♂	4×3	we. 55	wi. 124
	♀	9×5	— 62	— 124

Both specimens in winter plumage, but the male had started to moult the feathers on head and neck.

The Sanderling, which was not previously known from Afghanistan, was rather numerous on the banks of Ab-i-Istada on May 9, 1949.

(129). *Himantopus himantopus himantopus* (Linné) – Black-winged Stilt

I saw, on March 24, 1949, a flock of twenty Black-winged Stilts over the Hamun-i-Sabari near the estuary of Farah Rud, and on May 9 another one of 30 birds over the Ab-i-Istada. In spite of the late date, the birds at Ab-i-Istada did not behave as if they were on their breeding ground.

Although the Stilt most likely breeds in Afghanistan there is still no proof of this.

(130). *Recurvirostra avosetta avosetta* Linné – Avocet

We saw, on March 2 and 4, 1949, four and five Avocets in the estuary of Farah Rud, on the 24th three on the bank of Hamun-i-Sabari, and on May 9 a single bird and a flock of seven on the banks of the lake Ab-i-Istada. The Avocet may very well breed in the latter locality but my observations gave no information as to the status of the birds.

(131). *Phalaropus lobatus* (Linné) – Red-necked Phalarope

Bamian, Central Afghanistan

7. x. 49.	♂	2 × 1	we. 25	wi. 108
	♂	1½ × 1	— 25	— 103
	♀	4 × 3	— 24	— 107
	♀	3 × 2	— 27	— 108

All four are in postjuvénal moult. They swam together on a flooded area in one of the poplar plantations in the Bamian Valley. It is the first record from Afghanistan of *Phalaropus* on passage to the winter quarter in the Arabian Sea.

(132). *Burhinus oedicnemus astutus* Hartert – Stone Plover

Ab-i-Istada, E Afghanistan

9. v. 49.	♂	10 × 8	wi. 252
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Herat, W Afghanistan

2. vii. 49.	♂	7 × 4	— 230
5. vii. 49.	♂	9 × 5	— 235

Bamian, Central Afghanistan

14. x. 49.	♀	6 × 4	— 242
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These four specimens differ distinctly from three specimens of *saharae* (Marocco, Tunis, Istanbul) by lighter upper parts, of a more greyish less

sandy colour, and by the narrower and sharper painted streaks of the upper parts. They belong undoubtedly to the subspecies *astutus* which is distributed from the Persian Gulf to Sind. The male from Ab-i-Istada has an exceptionally long wing.

On May 9, 1949, we saw a pair of the Stone Plover in a very arid area near Ab-i-Istada. We only got the male which had enlarged and injected testes. Presumably the pair was on the breeding ground.

In the evenings of March 9 and 10 MADSEN heard its characteristic call at Baqrabad in Seistan, and on the 26th I saw a party of three on the banks of Farah Rud near Hamun-i-Sabari.

At the beginning of July I found it to be a rather common bird in the flat stony areas with a low tamarisk scrub along the river at Herat. We observed it also at Tirpul. I made no observations indicating the status of the birds, but there can be little doubt that they were on their breeding ground. They were very difficult to flush; they would either run a long distance in the open scrub or crouch. If they finally took to the wing, they flew straight to another hiding place. A winged bird ran faster than I could.

On July 30 MADSEN saw one on the steppe west of Balkh in Afghan Turkestan. The specimen collected at Bamian was the only one seen there.

(133). *Cursorius cursor* (*cursor* (Latham)) – Cream-coloured Courser

Dilaram, S Afghanistan

21. ii. 49. ♂ 6×3 wi. 160 bs. 24

Lower Farah Rud, Seistan, 6.–29. iii. 49.

Weight ♂♂: 127, 130, 135

Wing ♂♂: 160, 160, 161, 162

Bill from skull ♂♂: 23, 24, 25, 25

Herat, W Afghanistan, 3.–8. vii. 49.

Weight ♂♂: 122, 135, 148; ♀♀ ad.: 120, 135; juv.: 104

Wing ♂♂: 162, 168, 168; ♀♀ ad.: 164, 165; juv.: 169

Bill from skull ♂♂: 23, 24, 25; ♀♀ ad.: 22, 24

The males from March are moulting some body feathers and one of them has three new outer primaries. All the adults from July are moulting the remiges, and the males and the juvenile female also the body feathers.

In the males collected in March the testes measured from 7×5 to 8×5 mm.; in those from July from 7×5 to 10×5.

The specimens show some variation both of the isabelle colour on the upper parts and of the buff on the under parts. The paler specimens may belong to *bogolubovi* (type locality Ahal Téké, Transcaspia), but sufficient material of this subspecies was not available for comparison. Some modern Russian authors doubt, however, the validity of *bogolubovi* which may be

synonymous with typical *cursor*. Compared with this form the Afghan specimens seem rather large for VAURIE (in lit.) has measured the wing length of 9 African males to be 154–165 (160,8) against 160–168 (162,0) in the 8 Afghan males. Also the bills seem rather large in the Afghan birds.

On the steppe around Dilaram in southern Afghanistan we saw two pairs on February 21, 1949, and a single bird on April 3 and May 3.

We saw it on several occasions from February 28 to April 2 on excursions on the steppe around the Lower Farah Rud in Seistan. Most of these birds, I think, were in their winter quarter or they were migrants. They occurred mostly in pairs or in small flocks of 6 to 8 individuals, but even in the flocks they kept together two and two. There probably was a peak of migrants on March 25 and 29, but the number of birds passing through was not very high as the birds which were observed on these two days did not exceed 20 and 15 individuals respectively.

During the first three weeks of July we found the Cream-coloured Courser on several localities in the Hari Rud Valley from Islam Qala, at the border to Iran, to east of Herat. It was not found along the river but in the driest parts of the valley where it occurred single or in smaller parties of 5 to 6 birds. They were undoubtedly on their breeding ground; a female collected on July 8 was a young one, and in two adult females from the first week of July the sex organs were much enlarged with follicles measuring up to 15 mm. in diameter.

It breeds presumably also in eastern Afghanistan, where MADSEN saw one south of Mukur on June 25, and in northern Afghanistan, where he saw one near Balkh on July 30, the only one observed during our trip through Afghan Turkestan.

(136). *Larus argentatus* – Herring Gull

There are very few records of Herring Gulls from Afghanistan, and it is uncertain to which subspecies the recorded birds belong. A grey-backed (*cachinnans* ?) and a black-backed form (*heuglini* ?) however seem to occur.

We saw, on March 7 and 18, single large, grey-backed gulls on the Hamun-i-Sabari which undoubtedly were Herring Gulls. On May 2 a party of four juvenals of one of the large gulls flow up the river at Farah. SARUDNY (1903: 38) records *L. a. cachinnans* as a breeding bird in the Iranian parts of Seistan. He often saw the species during May and the beginning of June, and he was told that it bred there. There is, however, no other information to confirm this.

On May 9 we observed a single large black-backed gull (*heuglini* ?) on the bank of Ab-i-Istada.

(137). *Larus ichthyaëtus* Pallas – Great Black-headed Gull

We saw a few Great Black-headed Gulls from February 26 to March 9 over Hamun-i-Sabari and along the lower Farah Rud. They all had summer plumage with black heads. It is known only as a migrant in Afghanistan.

(138). *Larus ridibundus* Linné – Black-headed Gull

We observed the Black-headed Gull only at Hamun-i-Sabari, where on March 18 a flock of twenty was seen over the lake, and on the 24th several were migrating in northern direction while a party of about 200 rested on the bank. Nearly all individuals had black heads.

(139). *Larus genei* Brème – Slender-billed Gull

Ab-i-Istada, E Afghanistan

9. v. 49. ♀ 5 wi. 277

Bill dark liver-coloured, nearly black; in a few places a red colour was shining through. Feet pink.

On May 9, 1949, we found a few on the bank of Ab-i-Istada and several on a small island. When I approached by kayak they left and settled on the water around the island. They were undoubtedly on their breeding ground even if I did not find any eggs. According to TICEHURST (1927: 86) most eggs are not laid until the first week of June in Baluchistan. The largest follicle in the female collected had a diameter of 5 mm., and the oviduct was considerably enlarged but still not at its maximum size.

On February 25, 1949, I saw a single bird at Hamun-i-Sabari.

(141). *Gelochelidon nilotica nilotica* (Gmelin) – Gull-billed Tern

Ab-i-Istada, E Afghanistan

9. v. 49. ♀ laying we. 190 wi. 304

On March 29, 1949, I saw two Gull-billed Terns on the lower Farah Rud, and MADSEN saw one on April 17.

On May 9 I found a colony of 100–150 pairs on the banks of a small island in Ab-i-Istada. Most nests contained two eggs, the rest three. The female collected was in laying conditions. This is the first record of the Gull-billed Tern breeding in Afghanistan.

(142). *Hydroprogne tschegrava tschegrava* (Lepechin) – Caspian Tern

Hamun-i-Sabari, Seistan

24. iii. 49. ♀ 4 wi. 403

This female of the Caspian Tern was the only one seen. The ovary and the oviduct were slightly enlarged.

(143). *Sterna hirundo hirundo* Linné – Common Tern

Ab-i-Istada, E Afghanistan

9. v. 49. ♂ 8×6 we. 114 wi. 268

Herat, W Afghanistan

4. vii. 49. ♂ 7×5 — 103 — 266

♂ 7×5 — 104 — 275

Obeh, W Afghanistan

16. vii. 49. ♂ 2×1 — 97 — 245 juv.

♀ 3×2 — 99 — 243 juv.

On May 9, 1949, I saw a few Common Terns among the Gull-billed Terns on the small islands in Ab-i-Istada.

They did not yet seem to have eggs, but the testes in the male collected were large and injected. There were several small parties on May 4–5 along the Helmand at Lashkari-Bazar, and a single bird on the 6th at Giriskh.

It was a common bird along the Hari Rud from Tirpul to Obeh during the first half of July. On the 16th we saw a pair with just fledged young on the stony banks near Obeh.

(144). *Sterna albifrons albifrons* Pallas – Little Tern

Lashkari-Bazar, S Afghanistan

4. v. 49. ♂ 12×5 we. 54 wi. 176

Herat, W Afghanistan

4. vii. 49. ♂ 8×3 — 48 — 174

♀ 8×5 — 40 — 166

On April 30, 1949, I saw a single Little Tern at Farah, and on May 4–5 a few along the Helmand at Lashkari-Bazar. Besides the male in the list I there examined a female which was too damaged to skin. It had a slightly enlarged ovary in which the largest follicle measured 3 mm. During the first week of July there were a few at Herat and Tirpul.

It is very likely that this tern breeds along the rivers Helmand and Hari Rud. Anyhow, it breeds in Seistan where CUMMING (1905: 696) found it to be common and in pairs during May, and where SARUDNY (1900: 58) found it to be a very common breeding bird on the Persian side of the border.

(145). *Pterocles alchata caudacutus* Gmelin – Large Pin-tailed Sandgrouse

Farah, SW Afghanistan

27. vi. 49. ♀ wi. 206

The large Pin-tailed Sandgrouse was observed only in western and northern Afghanistan. The specimen collected 20 km. north of Farah was the only bird encountered in a cultivated but very unfertile area, three km.

from a stone desert. It was an adult female with an enlarged oviduct, the biggest follicle measuring 6 mm. in diameter.

On July 29 in the neighbourhood of Andkhui I saw two flocks of eight and ten birds approaching from the desert-like country to drink from one of the irrigation ditches. It was at 7:30 a.m. The next day two flocks of 20–30 individuals were seen in a cultivated area 20 km. west of Shibarghan.

(147). *Pterocles orientalis* subsp. – Imperial Sandgrouse

? *Pterocles orientalis bangsi* Koelz, Proc. Biol. Soc. Washington 52: 81 (1939 – Tolokhan, NE Afghanistan)

Farah, SW Afghanistan

20. ii. 49. ♂ 7×3 wi. 256

A comparison of a male *Pt. o. orientalis* collected at Firuzkuh in northern Iran (July 29) with the specimen I shot east of Farah reveals that the latter has none of the characters ascribed to *bangsi*. The type and paratypes of *bangsi* were collected in northeastern and northern Afghanistan during the breeding season, but more specimens of both breeding birds and migrants must be collected before it is established that a distinct subspecies occurs in Afghanistan.

The Imperial Sandgrouse is the dominant species in Afghanistan. On our drive from Kabul to Farah via Kandahar on February 16–22, 1949, we saw the first individuals 24 km. west of Kandahar, and later we noticed several flocks. The specimen collected 50 km. east of Farah was searching for food with another bird on a “grassy” area of the steppe. Its stomach was completely filled with small seeds and short green plant stems. The next day we saw two flocks on the steppe west of Dilaram.

From February 24 to March 10 we observed many single birds as well as flocks of about 30 individuals on the steppe, in fields, or in the river bed along the lower Farah Rud. On March 20 and 21 we saw a few more, but after that date we did not find any, although we remained in the area until April 21. We did not observe a single sandgrouse during a trip to Farah, Girishk and back to Seistan on April 2–7. I therefore presume that the numerous birds we saw in February and March were wintering in the vicinity or on migration. However, it is possible that a few may remain to breed as we saw four on April 30 just north of Farah.

None were seen at Shin Dand on June 28–30. On July 1 single birds or small groups were observed in several places along the road from that village to Herat. In other localities we never saw as many birds during the breeding season as on this particular day. In the Hari Rud Valley it was also rather common, and on July 2–22 we observed it in several places between Islam Qala in the west and Kwaja Chisht in the east. Single birds

or small flocks were found not only in the main valley but also in the side valleys extending to the Ardewan and Sauzak kotals.

North of the main mountain range two individuals were seen on the steppe south of Andkhui July 28, and a single bird was flushed from a ploughed field on the top of a ridge near Haibak August 2.

In central Afghanistan it was observed just once, near Cham Kotal, where a pair was seen June 6 at about 3000 m. elevation.

In the southeastern part of the country four and later two birds were observed May 9 at Ab-i-Istada. The following day a few were observed near Mukur and between Mukur and Ghazni.

(148). *Pterocles coronatus atratus* Hartert – Coronetted Sandgrouse

Pterocles coronatus atratus Hartert, Bull. Brit. Orn. Club 12: 48 (1902 – Eastern Persia)

Girishk, S Afghanistan

26. vi. 49.	♂	5×3	wi. 193
	♂	1×1½	— ? juv.
	♂	5×3	— 187

Shin Dand, W Afghanistan

1. vii. 49.	♂	9×5	— 188
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The two adult males from the vicinity of Girishk are moulting the primaries, and in one of them the chin and throat feathers are growing. In the young bird the outer primaries are still growing. This specimen and one of the adult males formed part of a flock of five.

The adult specimens are not quite alike. In the one from Shin Dand the upper parts are darker and the contrast between the greyish buff of the upper breast and the more ruddy buff of the abdomen is more pronounced. With the scanty material at hand it is impossible to decide whether these differences are geographical, individual, or a plumage stage.

The Coronetted Sandgrouse was first seen near Girishk on May 3, 1949, and again in the same area on June 26. North of Shin Dand, where *Pt. orientalis* was abundant, the coronetted was observed on July 1. Two flocks of four and seven were seen 25 and 34 km. north of that village along the road to Herat.

(149). *Columba leuconota leuconota* Vigors – Snow-Pigeon

Pashki, Nuristan

10. v. 48.	♂	12×6	wi. 238
	♂	14×6	— 249
	♂	14×7	— 238
27. v. 48.	♂	13×7	— 242
8. vi. 48.	♀		— 235

Bill black, basal part grey, iris grey yellow, legs and feet coral. – Four of the specimens are moulting the body feathers. – The strongly injected testes were presumably at their maximal stage. The ovary of the female showed a continuous development of the follicles, the largest having a diameter of 4 mm. The oviduct was enlarged but not at its maximum. In another female the development of the follicles was discontinuous with the largest measuring 10 mm. and more reddish yellow than the smaller ones. No calyces were visible. The oviduct was close to its maximal size. This female would have begun to lay in a short time. – The crops contained cereals from the fields.

STUART BAKER (5: 224) includes Afghanistan within the range of the Snow-Pigeon, although no earlier record seems to support this statement. It is, however, a breeding bird in the northeastern parts of the country, where I found it rather common in the higher parts of the Parun Valley in Nuristan. Here around the village of Pashki, I saw it nearly every day during my stay from May 8 to June 14. It came from the surrounding mountains to feed in the fields in the bottom of the valley, and I often saw it in flocks with the more numerous *Columba livia*. An examination of the gonads revealed that the birds were sexually active in May and June. I failed, however, to find their nests in the mountains, although there were many suitable sites for nesting. In some cases I saw single pairs or small flocks near cliffs, and it is possible that their nests may have been built in these inaccessible areas.

Higher up the Parun Valley, at Stiewe (2600 m.), the Snow-Pigeon was less common, but I saw it several times between June 16 and 28. On the 20th I observed two pairs in the valley leading to the Weran Kotal, one of them at an altitude of about 3550 m.

North of the main mountain range it was observed in the Weran Valley only between about 3550 and 3000 m. Two and four individuals were observed in groups on June 30 and six on July 21.

(150). *Columba rupestris turkestanica* Buturlin – Hill-Pigeon

Gusalek, Nuristan

10. iii. 48. ♀ wi. 222
 12. iii. 48. ♀ — 223
 ♀ — 223

The sex organs inactive. Crop and stomach contents: (1) brimfull of small seeds, (2) contained only a few seeds and (3) had some small seeds.

Between March 7 and 13 I often saw a flock of nearly a dozen Hill-Pigeons near our camp at Gusalek in Nuristan. They fed in a field with a

few *Columba livia*. A flock was also observed in other places in the vicinity, but it may have been the same individuals.

We did not see the Hill-Pigeon again until we had crossed the main ridge of the Hindukush. We found it in several places in the Kokcha (or Munjan) Valley from Nau (ca. 2500 m.) down to Iskan (1550 m.) between June 30 and July 7 but nowhere farther down the valley. On July 13–17, as we returned through the Warduj Valley, we saw it at Chakaran (1520 m.), and then we saw it again several times as we travelled over Zebak and Sanglich to Nau. It often appeared in flocks with *Columba livia* in the small cultivated areas around the villages, and a few were observed on the cliffs bordering the rivers.

The Hill-Pigeon, which undoubtedly breeds in Badakhshan, has not been previously reported from Afghanistan.

(151). *Columba livia* – Rock-Pigeon

a. *Columba livia gaddi* Sarudny and Loudon

b. *Columba livia neglecta* Hume

a. Darra-i-Shikari, Central Afghanistan

4. vi. 49.	♂	18×7	wi. 233	rump	d
	♂	19×8	— 235	—	d
	♀	4	— 220	—	d
	♀	5	— 218	—	d

Bamian, Central Afghanistan

11. x. 49.	♂	6×3	— 229	—	d
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Panjao, Central Afghanistan

12. vi. 49.	♂	5×1	— 229	—	(1)
16. vi. 49.	♂	12×6	— 239	—	1
17. vi. 49.	♂	10×5	— 231	—	d
	♂	11×6	— 236	—	1
12. vi. 49.	♀	11×7	— 221	—	d
	♀	10×6	— 229	—	d
	♀	2	— 228	—	1

Herat, W Afghanistan

3. vii. 49.	♂	18×6	— 227	—	d
5. vii. 49.	♀	4	— 215	—	w

Obeh, W Afghanistan

11. vii. 49.	♀	16	— 228	—	1
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Sauzak Kotal, W Afghanistan

22. vii. 49.	♀	8	— 232	—	1
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b. Wama, Nuristan

11. iv. 48.	♂	16×6	— 230	—	(1)
5. iv. 48.	♀	4	— 224	—	d
11. iv. 48.	♀	3	— 219	—	d

Pashki, Nuristan

15. v.	48.	♂	22×9	wi.	234	rump	d
		♂	20×9	—	233	—	d
27. v.	48.	♂	17×8	—	226	—	d
15. v.	48.	♀	18	—	228	—	(l)
19. v.	48.	♀	laying	—	226	—	d
		♀	3	—	230	—	l
27. v.	48.	♀	20	—	(222)	—	l

Four of the specimens from Pashki have growing body feathers. A female is moulting the inner primaries (May 27), a male the rectrices (June 4), and another male both the rectrices and the wing feathers (October 11).

The crops of the Pashki birds contained cereals from the newly sown fields, those from Darra-i-Shikari had half ripe cereals.

The specimens from Wama and Pashki in Nuristan are distinctly darker than those from the other localities, especially the upper parts, where the grey blue is a darker shade and the light rump less pronounced. The under parts are also darker. However, a few specimens from outside Nuristan are identical with this series in the last respect.

MEINERTZHAGEN (1938: 707), who was able to compare his large series from central and northern Afghanistan with further material, names his birds *gaddi* and writes "... the mantle is a shade paler and the underparts also paler than in *neglecta* or *intermedia*." As several of my specimens were collected in the same area as Meinertzhagen's, these light birds belong without doubt to *gaddi*. I have only been able to compare them with two specimens from Tehran (20. iv. 34); these have the same light coloured mantle; in one instance the rump is as light as in the specimens marked "l", while in the other it is as white as in a female collected on July 5 at Herat, which is the only one of my Afghan specimens that has a really white rump.

I have not been able to compare the dark Nuristan series with either *neglecta* or *intermedia*. There can, however, be little doubt that it belongs to *neglecta*, of which the type came from Ladakh.

A male from Wama is heavily spotted with black on the upper parts, and a male and a female from Pashki have a few black spots. In central Nuristan there is little if any possibility of interbreeding with domestic pigeons, and this suggests that the spotted aberrations may be produced by other means than interbreeding with domestic birds.

In the list of specimens I have noted that the rump is dark (d), light (l), or white (w). In my field notes I have also records of "white" rumped birds. In this case "white" does not mean white as in the specimen collected on July 5 at Herat, but that the rump was light and in conspicuous contrast

to the back when seen in the field. The notes, which cover most parts of the country, refer to "a few", "a small percentage" etc. of white-rumped birds. There are just two exceptions: in Nuristan (*neglecta*) I saw only one bird with a light rump. This was in the uppermost part of the Parun Valley, near the main range north of which white-rumped pigeons reappear. The other exception was Lashkari-Bazar and Qala Bist, south of Girishk, where I estimated that about 50 per cent of the birds had white rumps.

Nuristan: The Rock-Dove was seen a few times at Gusalek in March 1948 and several times at Wama in the first half of April, but it seldom appeared during the second half of the month. The gonads of the birds we collected had begun to enlarge. At Pashki, between May 8 and June 14, groups of 20 to 30 birds came with *Columba leuconota* to feed in the fields at the bottom of the valley. As usual the pigeons remained in bands after the beginning of the breeding season. The testes of the males were at their maximum size. One of the females was in laying condition and two others almost so. One bird that was shot but not skinned on June 14 was also in this state. The birds were less numerous at Stiewe, the highest village in the Parun Valley. About a dozen pairs were believed to nest on a vertical rock cliff close to a waterfall.

Eastern and southern Afghanistan: I observed Rock-Pigeons in several places May 23–25, 1949, as I travelled from Kabul via the Logar Valley to Gardez and on to Saroti Kotal. None were seen between Kabul and Kandahar on February 16–17, and only a few appeared in May. From Kandahar to the west the bird was frequently seen on February 20 in cultivated fields and rocks along the road. South of Girishk, at Lashkari-Bazar and Qala Bist, it was exceedingly abundant in the ruins of the old palace and the citadel.

Through the steppe between Girishk and Dilaram I saw a Rock-Pigeon only once, on April 4. The next day I saw 20–25 at the river near Dilaram, and a few appeared along the road between Dilaram and Farah among the foothills on February 21, April 3 and June 27.

In the region of the lower Farah Rud rather large flocks were observed about 15 miles south of Farah on March 1. Around the villages of Baqrabad and Faizabad small flocks were seen occasionally between March 20 and April 12.

Western Afghanistan: At Shin Dand the bird was not noted at the end of June. In the Hari Rud Valley it was observed, however, at several localities between Tirpul in the west and Kwaja Chisht in the east, and it was particularly abundant along the river at Herat. I saw it also in the foothills along the karezes, where the birds presumably nested. In the small

valley above Obeh it appeared constantly around some rocks at an elevation of 2000 m. A female which was collected here on July 11 had an egg in the oviduct. Another breeding place was a conglomerate wall in the main valley between Obeh and Kwaja Chisht. The bird also bred near the Sauzak Kotal, where a group of four birds were feeding along a small stream at 2200 m. when a female was collected.

Northern Afghanistan: North of the western parts of the main range the Rock-Pigeon was seen near Qala Nau on July 22, 1949. On July 24 I found the bird in many places between Qala Nau and Bala-Murghab, and in one instance several hundred appeared on a cliff. The pigeon was numerous also in the vicinity of Maimana, and a few were observed at Andkhui. We did not see any more until we left the steppe on August 1 and drove into the foothills at Tashkurghan. Some rather large flocks were on the fields around Haibak. In the hot hours of the day I found them packed together on shady ledges in a canyon, and I could hardly flush them from their shelter. Only a few birds appeared on the Danaghori plains and up the Surghab river on August 5 and 6, but at Doab it was rather numerous.

After I had crossed the main range of Hindukush from Nuristan to Badakhshan I found the Rock-Pigeon again below Nau and on the road to Faizabad between June 30 and July 17, 1948. I did not collect any specimens on this trip, but there can be little doubt that the population of Badakhshan belongs to the subspecies *gaddi* and not to *neglecta*, which inhabits Nuristan, for again I observed a conspicuous contrast between the rump and the back in a few individuals in every flock. I saw this only once in Nuristan.

Central Afghanistan: The pigeon was common at Darra-i-Shikari on June 2, usually appearing in groups of two or three, and on September 16 I saw a few small flocks. Several were noted on the second of June in the valley which runs west from Shibar Kotal. On September 5 and October 18 I saw a few flocks here of about 50 to 100 birds. On a plateau (2900 m.) east of Cham Kotal I found a rather large flock on June 6, and the following day I saw a large one with about two hundred birds in a field in the Bamian Valley. These birds had probably congregated because of the bad weather which not only covered the surrounding mountains with snow but even the bottom of the valley as well. During September and the first half of October the bird was seen almost every day in the main valley; the flocks were usually small and they never exceeded 50 individuals. I also found it in the mountains up to an altitude of 3000 m. There were several at Band-i-Amir on September 28.



Fig. 26. Ruins of a pigeon house in the palace of Mahmud on the bank of the Helmand river at Lashkari-Bazar. 5. v. 49.

At Panjao, on June 12–17, there were flocks of 30–40 birds in the fields. None of the females that were shot was in laying condition, and the gonads of the males were not at their maximum size. The fact that a male is immature suggests that the (first ?) breeding season was over at Panjao by the middle of June.

The French Archaeological Delegation in Afghanistan under the leadership of Dr. D. SCHLUMBERGER was excavating the palace of Mahmud (eleventh century) at Lashkari-Bazar. They guided us through the palace and showed us the imposing pigeon house (Fig. 26) which is of interest since it reveals the importance of breeding pigeons at that time. I regret to say that I made only a few notes about the present state of domestic pigeons. Dr. L. EDELBERG, the botanist of the expedition, has kindly supplied me with a little additional information. Our impression is that the domestic pigeon is common in most parts of Afghanistan, especially in the towns. In central Nuristan we did not see any, but there were some in the Kunar Valley. I saw them also in the Kabul area; in Doab north of Darra-i-Shikari; Barak in Badakhshan; in Mazar-i-Sharif, where there were enormous numbers of white pigeons in the Mosque of Ali; and in the village

of Baqrabad in Seistan. In several of the villages around Herat there are pigeon towers, but sometimes it was difficult at some distance to distinguish them from the towers used for drying grapes.

(153). *Columba eversmanni* Bonaparte – Eastern Stock-Dove

Herat, W Afghanistan

10. vii. 49.	♂	19×9	we. 234	wi. 197
	♂	19×5	— 194	— 202
	♂	20×6	— 220	— 205
	♂	19×7	— 185	— 202
	♂	19×6	— 224	— 201

Obeh, W Afghanistan

16. vii. 49.	♂	18×8	— 190	— 204
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Qala Nau, N Afghanistan

23. vii. 49.	♂	23×7	— 183	— 203
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Bala Murghab, N Afghanistan

26. vii. 49.	♀	10	— 183	— 194
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Skin around eyes pale yellow, iris dark yellow, legs and feet light flesh coloured.

Body feathers growing in all the males from Herat and the female from Bala Murghab.

I found the Eastern Stock-Dove in the Hari Rud Valley and north of the main mountain range. I did not identify it with certainty at Herat until, on July 10, I found a rather large colony breeding in a perpendicular clay cliff that rose to a height of 10–15 m. at the edge of the river bed. The nest holes were dug in narrow layers of gravel and pebbles in the clay, but I could not reach the nests. There was no doubt, however, that the birds were breeding as their testes were at or very near their maximum size. Furthermore, the birds kept very close to their holes despite my shooting. No young were seen. The fact that only males were shot may indicate that the male of this species does the incubating alone in the middle of the day. A few days later I found a small colony of 10–20 pairs in a clay cliff at Obeh.

At Qala Nau I found a similar nesting place on July 23. I also saw this species at Bala Murghab and along the road from this town to Andkhui via Maimana on July 29. It appeared again a few times on the steppe east of Mazar-i-Sharif on August 1 and on the Danaghori plains on August 5.

I have never seen this dove in the vicinity of any trees.

(154). *Columba palumbus casiotis* (Bonaparte) – Wood-Pigeon

Obeh, W Afghanistan

11. vii. 49.	♂	4×1	juv.
	?		juv.

12. vii. 49.	?		nestling
	♂	24×9	wi. 261
Wama, Nuristan			
19. iv. 48.	♂		— 270
	♂	11×5	— 258
	♀	18×8	— 252
Pashki, Nuristan			
28. v. 48.	♀	10×8	— 265

Body feathers were growing in the adult male from Obeh and in one of the birds from Wama.

Specimens of true *casiotis* were not available for comparison, but in the series above the neck patch is buff, a characteristic of *casiotis*. The specimens, however, are not paler than Danish breeding birds which show some variation in their general colouration.

The Wood-Pigeon was not numerous anywhere, and I found it only a short distance north and south of the main mountain range. I discovered two nests with one and two nearly hatched nestlings at 2300 m. above Obeh, and a few more pairs were there in the same area. In a small side valley above Kwaja Chisht I saw three and six individuals on July 19 and a small flock of half a dozen appeared in the main valley between these two places on July 20. Some birds were noted north and south of the Sauzak Kotal, especially in the juniper forest of the pass. In the Bamian Valley I saw a single bird on September 26.

In Nuristan I did not see any Wood-Pigeons until April 20 when some 50 birds were feeding in the fields on the mountain slopes near Wama. In that same locality I saw five and another single bird on April 24 and May 1. At Pashki in the Parun Valley I found a single bird and half a dozen on May 17 and 28. The pigeon undoubtedly breeds in Nuristan, even though I was not able to prove this. The gonads were not in active condition in any of the birds I collected, but development had begun in those from Wama. The female from Pashki had a juvenile oviduct.

In Badakshan I saw a single adult at Kachari (2280 m.) on July 30. I have no further records from that province.

(155). *Streptopelia turtur arenicola* (Hartert) – Common Turtle-Dove

Synonym: *Turtur communis* Selby var. *gregorjewi* Sarudny and Loudon, Orn. Monat. ber. 10: 149 (1902 – Hilmand, Iranian Baluchistan).

Herat, W Afghanistan

2. vii. 49.	♂	19×6	we. 130	wi. 172
3. vii. 49.	♂	21×6	— 111	— 170
2. vii. 49.	♀	laying	— 126	— 166
3. vii. 49.	♀	4	— 131	— 166

Obeh, W Afghanistan

12. vii. 49. ♂ 16×6 we. 140 wi. 170

16. vii. 49. ♂ 20×7 — 121 — 173

Mazar-i-Sharif, N Afghanistan

1. viii. 49. ♂ 15×5 — 121 — 169

The male collected July 12 is moulting body feathers.

In some of the specimens the rufous feather edges on the mantle are paler, in others they are darker. The same is true in a series from Bishe Porem in southwestern Iran, a region close to the type locality (Fao, Iranian Gulf) of *arenicola*.

The Common Turtle-Dove appeared in several parts of the Hari Rud Valley, and it was breeding there in July. It was observed at Herat, Tirpul, Obeh and Kwaja Chisht. In the side valley at Obeh it was quite common up to about 2300 m.

Between July 23 and August 3 it appeared several times in northern Afghanistan in the following towns and in suitable localities along the road between them: Qala Nau, Bala Murghab, Maimana, Andkhui, Mazar-i-Sharif and Haibak. Some of the birds I observed may have been *Streptopelia orientalis* but I never identified this species with certainty on this part of our journey.

(156). *Streptopelia orientalis meena* (Sykes) – Eastern Turtle-Dove

Pashki, Nuristan

14. v. 48. ♂ 20×7 we. 221 wi. 207

30. v. 48. ♂ 21×5 — 165 — 195

5. vi. 48. ♂ 18×7 — 190 — 190

♂ 19×6 — 177 — 196

9. vi. 48. ♀ 10 — 204 — 185

Stiewe, Nuristan

22. vi. 48. ♂ 18×8 — 194 — 195

Bamian, Central Afghanistan

19. ix. 49. ♂ 6×2 — 195 — 194 juv.

3. x. 49. ♂ 6×1½ — 229 — 199 juv.

The adult males collected on June 14 and 22 are moulting body feathers. The two specimens from September and October are in postjuvenile moult.

I have not been able to compare the above specimens with *meena*, but I think this is the only form to which they could belong. In the adult specimens there is some variation as to the intensity of the vinaceous colour on the breast.

In the spring of 1948 the first Eastern Turtle-Dove arrived at Wama in Nuristan on May 6. Two individuals were seen together on that date. On

May 8 several pairs were observed at Pashki. The testes of a bird which I collected measured 14×8 mm. They were rather numerous, mostly in pairs, until about May 18, when the migrating birds had presumably passed through the valley. The breeding birds were found up to an elevation of 2700 m. in open and mixed forest of *Quercus balout*, *Pinus geradiana* and *Cedrus deodara* or in grass covered glades with scrub and a few isolated conifers. The males I collected had gonads of maximum size and the female was ready to lay. On June 9 a bird was flushed from a nearly finished nest built in a stunted cedar. Around Stiewe (2600 m.) it was seen on several occasions between June 16 and 28 in the cultivated valley or in the scrub on the lower parts of the mountain slopes. The bird also appeared in several places in the Pech-Parun Valley as we made our way back at the end of July and the beginning of August. We shot a pair at Gusalek on August 2.

In Badakhshan I noted only one bird in the Kokcha Valley (Kachari, July 3), and a few in the Warduj Valley between Barak and Supian (July 13). I assume that these birds belonged to this species rather than to *Streptopelia turtur*, but I did not identify them with certainty.

At Bamian in central Afghanistan I saw on June 7 four turtle-doves which may have been the Eastern Turtle-Dove. During our investigations in this locality between September 6 and October 17, we saw single or at most four turtle-doves on several days, but none appeared after October 5. Both of the birds I collected were *S. orientalis*.

At Saroti Kotal, southeast of Gardez, I saw a single turtle dove on May 25. Presumably it belonged to this species, which WARDLAW-RAMSAY (1879: 449) said was common in eastern Afghanistan.

On June 27 I saw a turtle dove in the hotel garden in Farah. It was so close that the grey, not white, borders of the feathers on the neck patch were quite unmistakable.

(157). *Streptopelia decaocto* (Frivaldszky) – Indian Ring-Dove

Synonym: *Streptopelia decaocto zarudnyi* Serebrowskij, Compt. Rend. Acad. Leningrad 1927 A: 328 (1928 – Seistan, eastern Iran).

Farah, SW Afghanistan

28. iv. 49. ♀ 9×5 we. 156 wi. 162

Herat, W Afghanistan

3. vii. 49. ♂ 18×9 — 176 — 180

♂ 19×6 — 166 — 176

♀ laying — 175 — 168

♀ laying — 157 — 173

♀ 13 — 160 — 177

Iris dark red.

I have not been able to compare these specimens with those of *S. d. stoliczkae*; however, the measurements alone may exclude this form.

I never saw the Indian Ring-Dove during the winter in Kabul, but it was rather common in May and June, especially in the outskirts of the town. On May 23 I found two in the Logar Valley, but this was my only trip to that particular section of the country.

In southern Afghanistan it appeared here and there in the scrub along the river west of Kandahar on June 26. It was common at Girishk on May 4 and I saw it frequently at Lashkari-Bazar where there are trees along the Helmand (May 5–6). During our investigations in Seistan between March 24 and April 20 we observed half a dozen turtle-doves feeding together in the fields near Baqrabad on April 18. They undoubtedly belonged to this species. In the hotel garden in Farah I saw a number of the birds making courtship flights at the end of April. In this locality the bird was abundant on June 27, but I did not see it on our earlier visits in February, March, or at the beginning of April.

In western Afghanistan a few appeared in a willow grove near Shin Dand June 28–30. In July the bird was very common at Herat in the town, fields and poplar groves. Courtship flights were very frequent at the beginning of the month. During these flights the dove flaps aloft vertically and then glides down again in dashing spirals. The usual cooing sounds are *Kookoo-'koo, kookoo-'koo*. It gives another very characteristic call when it lands, one which in some way always reminded me of the voice of the Black-headed Gull. It did not appear elsewhere in the Hari Rud Valley.

In northern Afghanistan I found it only at Qala Nau and Bala Murghab at the end of July.

The Indian Ring-Dove did not appear in the higher parts of the Pech-Parun Valley in Nuristan. GRIFFITH (cf. WHISTLER 1945: 464) collected it, however, at Chigha Sarai where the valley opens into the Kunar Valley, and I may have glimpsed a single bird at Gusalek on August 2.

(160). *Streptopelia senegalensis* – Little Brown Dove

a. *Streptopelia senegalensis cambayensis* (Gmelin)

b. *Streptopelia senegalensis ermanni* (Bonaparte)

Farah, SW Afghanistan

27. iv. 49.	♂	14 × 4	we. 75	wi. 129
	♀	3	— 78	— 132
28. iv. 49.	♀	3	— 77	— 124

Shin Dand, W Afghanistan

30. vi. 49.	♂		— 76	— 135
	♀	7	— 75	— 123

I have been unable to compare these specimens with material of either the Turkestan form, *ermanni*, or the Indian-Baluchistan form, *cambayensis*. HARTERT found no constant colour difference between these two forms but separated them according to size. For *ermanni* he gave the wing measurements as ♂ 135–145 and ♀ 130–140, and for *cambayensis* ♂ 125–132, ♀ 121–129. According to these measurements, two of my females are typical *cambayensis*, while the third one, collected at Farah on April 27, has a wing length typical of *ermanni*. This bird may have been on migration despite its slightly enlarged sex organs, and it is distinctly paler than the other females from Farah. This pale colour is said, by some authors, to be characteristic of *ermanni*. On the other hand, the small female from Shin Dand is just as pale. These contradictory facts, together with the wing measurements of the females, may indicate that the birds were collected in a transitional zone. MEINERTZHAGEN (1938: 710) refers two males from Haibak to *ermanni* and one from Jalalabad to *cambayensis*.

The Little Brown Dove was seen all the year round in Kabul, even during the hard weather of January 1949, and during the spring and summer it appeared everywhere in the town gardens.

In Kandahar it was also common, especially in the scrub along the river west of the town (June 26), and on a small wooded island in the Helmand near Lashkari-Bazar (May 6). In Girishk it was abundant in May.

I did not see any of the birds in the hotel garden at Farah during our first visit in February. On April 6 there were a few there, and by the end of the month the bird was abundant. On June 27 we saw a great number in this locality. A few appeared in a poplar grove near Shin Dand at the end of June. One female I collected was near laying. Only a few were in Herat at the beginning of July. I did not find the bird anywhere else in this part of the country except in the Obeh Valley at about 2000 m. where a few were present.

North of the main mountain range the Little Brown Dove appeared in the following towns at the end of July and during the beginning of August 1949: Maimana, Shibarghan, Aq Chah, Mazar-i-Sharif and Haibak. Several pairs were observed in Faizabad, Badakhshan, on July 11, 1948. All these birds were probably *ermanni*, but I did not collect any specimens because we were travelling rapidly through this part of the country and it was impossible to do any shooting in the areas where the doves appeared.

(161). *Psittacula himalayana himalayana* (Lesson) – Slaty-headed Parrakeet

GRIFFITH is the only one who has collected parrots in Afghanistan. His three specimens are all, according to WHISTLER (1945: 294), from the Kunar

Valley, northeast of Jalalabad, where he also says (p. 474) he saw "a parrot flying overhead" on April 17.

I eagerly looked for parrots in Nuristan and I also saw a few, but I never obtained a specimen. On May 3, just before we left Wama, I heard a scream, which undoubtedly came from a parrot. Our bearer asserted he had seen the bird and said it was a green one. Higher up the Pech-Parun Valley we never saw or heard parrots. On the return journey we again passed Wama on July 31 where I saw a few green parrakeets. Also at Atschenu, south of Wama, I observed a party of half a dozen which flew screaming up the valley. I was not able to identify them with certainty, but they were undoubtedly the slaty-headed which I think is the only species to be expected there.

(162). *Cuculus canorus* – Cuckoo

a. *Cuculus canorus canorus* Linné

b. *Cuculus canorus subtelephonus* Sarudny

a. Pashki, Nuristan

11. vi. 48. ♂ 6×4 we. 117 wi. 228

Stiewe, Nuristan

16. vi. 48. ♀ laying — 100 — 207

b. Farah, SW Afghanistan

6. iv. 49. ♂ 6×4 — 128 — 216

Shin Dand, W Afghanistan

30. vi. 49. ♀ 6×4 — 84 — 208

Panjo, Central Afghanistan

12. vi. 49. ♂ 5×4 — 98 — 221

Bamian, Central Afghanistan

8. ix. 49. ♀ 4×3 — 91 — 200

As to colour and size the male from Pashki agrees with specimens of *C. c. canorus* from Denmark. In the two other males the grey-blue colour, especially of the breast, is decidedly paler; furthermore the wing measurements are rather small and the bands on the under parts are narrower. I therefore refer the birds collected outside Nuristan to the subspecies *subtelephonus* for which PORTENKO (1931, Mitt. Zool. Mus. Berlin 17: 417–422) gives the following wing measurements: ♂ 204–220, ♀ 184–216. MEINERTZHAGEN (1938: 699) refers 3 out of 4 males collected May 5–10 in Afghan Turkestan to this subspecies, the fourth male to *C. c. canorus*.

The female from Bamian is somewhat darker than the two other females and with a brownish tinge on the under tail-coverts. A female from West Siberia in the Copenhagen Museum shows the same aberration.

In the Parun Valley in Nuristan we heard the first Cuckoo near Pashki on May 7, 1948. From then on I observed it on many occasions until we left this camp on June 14. It was found all the way from the bottom of the main valley up to the tree limit where it was most common. Higher up the main valley, around Stiewe, I heard or saw it nearly every day between June 16 and 28. It was, however, rather scarce. The female collected on June 16 had an egg in the oviduct.

In the province of Gardez in western Afghanistan I observed the Cuckoo in Tera Kotal on May 23 and in Saroti Kotal on 25th. In eastern Hazarajat I saw a few individuals between Diwal Kol and Panjao June 11–17, 1949. At the last place it occurred as well in a willow scrub in the bottom of the valley as on mountain slopes without trees or scrub. At Bamian I saw only the female collected. In western Afghanistan we heard a single bird at Farah on April 5 and collected a male there the next day. At Shin Dand we saw a few June 28–30. From north of the main mountain range I have only a single record of a female at Qala Nau July 23.

(165). *Bubo bubo turcomanus* (Eversmann) – Eagle Owl

Haibak, N Afghanistan

2. viii. 49. ♂ 7×4 wi. 426

The general colouration of this specimen is conspicuously paler than in Scandinavian birds. I have been unable to compare it with material of *turcomanus* (northern Transcaspia, Uralsk), *zaissanensis* (southern Transcaspia to Sinkiang) or *bengalensis* (India). However it is too pale to be referred to *bengalensis* which is said by some authors to be the form living in Afghanistan. A specimen collected in Kandahar by ST. JOHN is referable to *turcomanus* according to WHISTLER (1945: 295) of which *zaissanensis* may merely be a synonym. The specimen from Haibak does not show the oblique vermiculation on the under parts which is said to be characteristic of *paradoxus*, the type of which was collected in the Hari Rud Valley just north of the Afghan boundary.

We saw the Eagle Owl for the first time at Lashkari-Bazar, south of Girishk, where the French archaeologists had observed an occupied nest for more than a month. The nest was placed on the top of a tall wall in the castle ruins, and had contained five young. When I inspected the nest on May 5, however, I could count only three nearly full grown birds. Below the nest lay innumerable legs of *Fulica atra*, several of which were rather fresh in spite of the great heat. I therefore looked for Coots along the river but curiously enough I could find no trace of as much as a single one.

When on July 18 we went by jeep from Obbeh to Kwaja Chisht we passed a wall of conglomerate where I thought I saw an Eagle Owl in a hollow. We stopped and went up to the place where we found some pellets and some nest material. The bird, however, had disappeared. The specimen from Haibak sat in a hollow on a canyon wall and it was the only seen there. The stomach contained nothing but the tail of a large reptile.

(166). *Athene noctua bactriana* Blyth – Little Owl

Athene bactrianus Hutton, Jour. As. Soc. Bengal 16: 776 (1847 – Kandahar)

Logar Valley, W Afghanistan

23. v. 49. ♀ 3 we. wi. 174

Baqrabad, Seistan

27. ii. 49. ♂ 8×4 — — 166

17. iv. 49. ♂ 7×5 — 151 — 159

26. ii. 49. ♀ 5 — — 169

Shin Dand, W Afghanistan

1. vii. 49. ♂ 5×2 — 150 — 170

Herat, W Afghanistan

5. vii. 49. ♂ 3×1 — 144 — 157 juv.

0 — 155 — 158

Obbeh, W Afghanistan

11. vii. 49. ♂ 4×2 — 163 — 163

16. vii. 49. ♂ 4×2 — 172 — 165

Qala Nau, N Afghanistan

23. vii. 49. ♂ 4×2 — 138 — 167

Bala Murghab, N Afghanistan

26. vii. 49. ♂ 4×2 — — 161

Bamian, Central Afghanistan

11. x. 49. ♀ 8×4 — 172 — 174

Four of the adult males from July were moulting the body feathers. Two stomachs contained grasshoppers, one remnants of a small lizard.

This series shows in a very convincing way, how cautious one must be in estimating the geographical variation of this species. In the male collected on February 27 the upper parts are considerably darker and more brown than in the two other specimens from Seistan in which they are quite alike and very greyish. As the type of *bactriana* was collected at Kandahar, these three specimens are nearly topotypical and they exhibit so much variation, that I am inclined to believe that it is correct to consider *lilith* (Palestine to Zagros) a synonym of *bactriana* as is done by some authors. In an earlier paper (Jour. Orn. 86: 626) I identified four specimens from the western foothills of Zagros as *lilith* in contrast to one specimen from the plateau

east of the Zagros which I referred to *bactriana*. All these five birds fall, however, within the range of individual variation exhibited by the three specimens from Seistan, and therefore they should all have been named *bactriana*. The upper parts in the specimen from Bamian are even darker and of a more reddish brown colour than in the dark Seistan specimen. This may merely be due to the fresh stage of the plumage.

We found the Little Owl in several localities, but it was nowhere numerous. In the mountains of Nuristan I never observed it.

In the upper Logar Valley, south of Hisarak, I collected on May 23 a female which sat on a telephone pole in a flat steppe-like part of the valley. It was an adult female which presumably was incubating or had young. In the Tarnak Valley, south of Kalat-i-Ghilzai, I saw two on February 17 and here one again on May 7. In some ruins south of Lashkari-Bazar we observed a single one May 5. Besides the specimens collected I only saw a few more in the ruins of Seistan. In the female from February 26 the largest follicle measured 5 mm. in diameter and the oviduct was much enlarged, however not at its maximum.

In western Afghanistan I saw two individuals between Shin Dand and Herat on July 1. The two birds from Herat were together with a third one; presumably a family party. They stayed in a ruined bridge over the Hari Rud. One of the birds from Obek I shot at the clay cliff in the river bed where also *Columba evermanni* had its nest holes.

In northern Afghanistan from July 23 to August 4 we observed a few Little Owls at Qala Nau, Bala Murghab, between Maimana and Andkhui, and east of Haibak. The specimen from this last locality was perched on a telephone wire among some *Falco naumanni*. At Bamian I saw only the specimen collected which was taken at 3000 m. in a narrow side valley.

(167). *Strix aluco biddulphi* (Scully) – Wood Owl

Gusalek, Nuristan

29. ii. 48. ♀ wi. 322

I have been unable to compare this specimen with material of *biddulphi*. According to its large size and the grey colour, it seems, however, to be a typical representative of this form which is known to inhabit Gilgit, Kashmir and northeastern Baluchistan. The Wood Owls heard and seen by WARDLAW-RAMSAY (Ibis 1879: 446, 1880: 48) in the Hariab Valley in eastern Afghanistan belonged most likely to this form also.

The specimen above was the only one I saw or heard in Afghanistan. It was in a tall oak tree near the Pech river at Murchal, north of Gusalek.

(168). *Asio otus otus* (Linné) – Long-eared Owl

Baqrabad, Seistan

15. iii. 49. ♀ 3 wi. 300

This specimen cannot be distinguished from Danish breeding birds.

One evening, some days before we collected the specimen above, we saw an owl which too was presumably of this species. On March 31, a very hot day, MADSEN saw one sitting in the shadow of some scrub. No further records.

(169). *Asio flammeus flammeus* (Pontoppidan) – Short-eared Owl

On March 18 and 24 MADSEN saw a Short-eared Owl in the tamarisk scrub at the estuary of Farah Rud.

(170). *Caprimulgus europaeus* – European Nightjara. *Caprimulgus europaeus unwini* Humeb. *Caprimulgus europaeus plumipes* Przewalski ?

a. Lashkari-Bazar, S Afghanistan

4. v. 49. ♂ 10×5 we. 54 wi. 185

♂ 6×4 — 57 — 195

b. Balkh, N Afghanistan

30. vii. 49. ♂ 2×1 — 49 — 181 juv.

In one of the males collected on May 4 the upper parts are a little paler than in the other; in both, however, they are considerably paler than in specimens from Scandinavia. In this respect, and as to the colour patterns of the two outermost primaries, they agree with the description of *unwini* which breeds from southern Turkestan to Baluchistan and Sind.

The general colouration of the juvenile bird from Balkh is quite different. Its brownish sandcolour reminds one to some extent of the colour in *Caprimulgus aegyptius*. I have not seen specimens of *C. e. plumipes*, the breeding bird of Sinkiang, but as it is a form with brighter colours than *unwini* and is said by HARTERT (2: 850) to be a passage migrant in Afghanistan, this juvenile bird may belong to this subspecies. I think HARTERT took *plumipes* as a passage migrant owing to a specimen obtained by ST. JOHN at Kandahar on May 8 (TICEHURST 1927: 880). I cannot find this bird, however, in WHISTLER's list of the birds of Afghanistan.

In the scrubs and among the ruins at Lashkari-Bazar we saw particularly many European Nightjars on May 4 and 5. The testes in the two males collected were enlarged and injected. Because of our short stay at that place I cannot tell if these birds were on their breeding grounds or if the migration was still going on. – At Panjao in central Afghanistan I flushed

on June 14 a nightjar of this species from a willow scrub in the river bed. – In the autumn at Bamian I only saw, on September 10, a single nightjar which also may have been of this species.

The juvenile bird, which I collected west of Balkh, was flushed from some grass about a foot high. In the stomach I found some seeds which presumably may have been swallowed by error while hunting insects in the grass.

(171). *Caprimulgus aegyptius aegyptius* Lichtenstein – Egyptian Nightjar
Faizabad, Seistan

25. iii. 49.	♂	7×4	we.	wi.	204
29. iii. 49.	♂	8×5	— 85	— 200	
13. iv. 49.	♂	8×4	— 93	— 208	

I saw only the specimens collected. They are the first obtained in Afghanistan. One was collected in a desolate area between cultivated fields around Faizabad, another in an area with dunes and scattered scrub about a metre high. The testes were enlarged and injected in the last two birds collected. Whether they were on their breeding ground or not I cannot tell with certainty. However, undoubtedly the species does breed there, as SARUDNY (1903: 186) found it to be a very common breeding bird in the Iranian part of Seistan. He collected three specimens there between June 3 and 18 and a clutch of two eggs almost at the hatching point on June 17. According to the same author it also was one of the common breeding birds in the Hari Rud Valley between Pech Robot and Kafir Qala (= Islam Qala). The nightjars of Seistan need, however, further investigations as CUMMING (1905: 690) found *C. mahrattensis* very common in this province and he observed only this species. In contrast to CUMMING, SARUDNY did not observe this nightjar until he entered the southern part of Iranian Baluchistan.

(174). *Apus melba tuneti* Tschusi – Alpine Swift

Tangighoru, Kabul

30. v. 49.	♂	we.	80	wi.	219
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The upper parts of this specimen are just as pale as in four specimens collected in northern Iran in July (PALUDAN 1940: 47) and determined as *tuneti*. MEINERTZHAGEN (Ibis 1938: 696) collected three birds in Afghanistan which he also refers to this subspecies.

I saw the Alpine Swift remarkably seldom in most parts of Afghanistan. On May 30 a party of about 25 individuals was hunting over the Kabul River outside the canyon east of Kabul. In the bird which I shot there both testes were shattered so it was not possible to determine their state of

development. At this time, however, the birds presumably are in their breeding area. In the last part of August and in September 1948 I saw parties of 10–20 individuals on several occasions circling over Kabul. The next year, however, I observed only few of this swift here between August 10 and September 4.

At Siah Gird in the Ghorband Valley I saw a single bird on June 1, 1949. In Nuristan I never observed it and the same was the case at Bamian and all other places in central Afghanistan visited during the breeding season.

A few birds, presumably on passage, appeared at Farah between April 24 and May 2 and at Ghazni on May 10.

(175). *Apus apus pekinensis* (Swinhoe) – Common Swift

Faizabad, Seistan

13. iv. 49.	♂	7×4	we. 41	wi. 172
20. iii. 49.	♀	6×6	— 47	— 173
8. iv. 49.	♀	7×5	— 46	— 171
	♀	7×5	— 39	— 172

I have been unable to compare with material of *pekinensis* but compared with four June specimens from Sweden the upper parts, especially the crown, are slightly paler in the Afghan birds, which are undoubtedly referable to *pekinensis*.

Nuristan: In the spring of 1948 the first Common Swifts were seen by EDELBERG on April 16 at Wama in the Pech-Parun Valley. On 22th I saw four over the oak forest and two days later hundreds over the valley at 3 p. m. The next days we only observed a few. Again on May 2 half a hundred were hunting over the valley. At Pashki (2300 m.) I occasionally saw between May 8 and June 14 a few to a dozen or two circling over the valley. In the morning of June 9 it was more numerous than usual but many were so high up in the air that I could not count them with certainty. Farther up the valley, at Stiewe, I made only a few observations in the last part of June. On our return journey from Badakhshan we saw on July 22 and 23 a few swifts between Weran Kotal and Pashki. These observations show that a rather heavy migration goes through Nuristan in late April and the beginning of May, and, without doubt, that some remain to breed there, even if we never found their nesting places.

Badakhshan: On the northern side of the Hindukush, we saw it in the higher parts of the valleys down to about 2000 m. In an altitude of about 3700 m. EDELBERG saw on June 29 a small party flying up the Weran Valley under a snow-squal. The following days we observed only a few, on

July 5 about 25 at Sar-i-Ab, the 15th a dozen near Zebak and the next day 20 at Magnaol.

Southern Afghanistan: In the spring of 1949 we observed the migration in southwestern Afghanistan. On March 20 we saw the first birds when about a dozen individuals twice passed Faizabad in a north-eastern direction. During the rest of the month we saw only a few. On April 3 we observed two parties of about 50 and 100 between Farah and Dilaram, on 5th a single bird at Dilaram, on 6th a rather heavy migration over Farah, between 8th and 18th occasionally a few birds or small parties were seen at Faizabad, and on 24th and 26th and on May 1–2 parties of up to half a hundred over the river near Farah. On May 4 we saw a few over the Helmand, south of Girishk, they may also have been on migration.

Eastern Afghanistan: At Ghazni it undoubtedly breeds for we saw some over the town on May 10 and June 24. A few birds that were presumably breeding were seen below Tera Kotal, north of Gardez, on May 23, in the Wardak Valley on 26th, and several together with *Apus melba* at Tangighoru east of Kabul on the 30th.

Central Afghanistan: On a drive up the Ghorband Valley and over the Shibar Kotal on June 1–2 we observed several and in the Bamian Valley a few on 4th and 5th. In eastern Hazarajat we saw a few between Diwal Kol and Panjao on June 11 and the next day half a dozen high over the valley at Panjao.

Western Afghanistan: I saw two over the river at Shin Dand during the breeding season on June 29 and on July 7–8 a few flying around the famous minarets in Herat, where they presumably bred.

On our trip through the northern Afghanistan from July 22 to August 6 we made no observations of the Common Swift.

(176). *Apus affinis galilejensis* (Antinori) – Indian Swift

Farah, SW Afghanistan

l. v. 49. ♂ 8×4 we. 21 wi. 132

I have been unable to compare this specimen with other material. *A. a. galilejensis* is, however, the only subspecies which is likely to occur in this part of Afghanistan.

In a party of *Apus apus* east of Farah MADSEN saw a single bird on April 3 with a white rump. Under the same circumstances I saw one at Faizabad in Seistan on April 13 and a few at Farah on May 1 and 2. We did not observe the Indian Swift again until July 24 north of Miana Bam between Qala Nau and Bala Murghab in northern Afghanistan. We drove along the river in a very deep canyon and over it numerous swifts were

circling on high. They were too high for identification but half a dozen which came down over the road were at any rate *affinis*. Later the same day we saw several over the Murghab River from the surface of which they caught insects.

The Indian Swift is known to breed in the Kandahar area (ST. JOHN 1889: 156). All our observations may, however, have been of birds on passage to or from their breeding places in Transcaspiæ.

(177). *Ceryle rudis leucomelanura* Reichenbach – Pied Kingfisher

? Synonym: *Ceryle rudis afghanistanica* Koelz, Proc. Biol. Soc. Washington 52: 79 (1939 – Laghman, Afghanistan)

Jalalabad, E Afghanistan

14. ii. 49. ♀ 2 wi. 139 bs. 58

This specimen is from the same river system from which the type of *afghanistanica* came. I have been unable to compare it with material from Ceylon, the type locality of *leucomelanura*; it does not, however, differ from one specimen collected in Tranquebar and a few others from the range of *leucomelanura*.

The specimen of the Pied Kingfisher collected was shot by an American friend and brought to me fresh. I myself saw a few of this kingfisher at Darontah northwest of Jalalabad on February 20. I observed it again a few times along the Pech River at Murchal between February 29 and March 26. Not seen elsewhere in Nuristan.

(178). *Alcedo atthis pallasii* Reichenbach – Common Kingfisher

Shin Dand, W Afghanistan

30. vi. 49. ♂ 4 × 2 we. 26 wi. 75 bs. 32

Bamian, Central Afghanistan

10. ix. 49. ♂ 2 × 1 — 29 — 74 — 35

14. x. 49. ♂ 1½ × 1 — 29 — 75 — 36

27. ix. 49. 0 — 28 — 75 — 33

The upper parts and especially the under parts in these Afghan birds are decidedly paler than in specimens of true *A. a. atthis*. As H. JOHANSEN informs me that he has found just the same characteristics for a large series from Turkestan and western Siberia, I find it necessary to maintain the subspecies *pallasii* which some recent authors have synonymized with *A. a. atthis*.

The Common Kingfisher is said to be a resident of the Kandahar and Seistan areas. In other parts of its breeding range within Afghanistan it is presumably a summer visitor. — In western Afghanistan we saw a few

along the river at Farah April 21–30, a single one at Shin Dand on June 30, and a few along the river at Herat in the beginning of July. In Afghan Turkestan I observed single birds east of Mazar-i-Sharif on August 1, 1949 and at Faizabad on July 11, 1948. In Nuristan I recorded only a single bird at Gusalek on February 27. I also saw one in Maidan Valley southwest of Kabul on June 19, and at Bamian in the autumn of 1949 one to three birds along the river on several days between September 7 and October 14.

(179). *Halcyon smyrnensis smyrnensis* (Linné) – White-breasted Kingfisher

The only preceding record of the White-breasted Kingfisher in Afghanistan is by GRIFFITH (1847: 471) who (March 31, 1840) writes that it occurs at Kunar. Not very far from this locality, at Darontah northwest of Jalalabad, I saw a single one flying along an irrigation canal in cultivated fields on February 20, 1948.

(180). *Merops apiaster* Linné – Common Bee-eater

Faizabad, Seistan

10. iv. 49. ♀ 6×4 we. 51 wi. 148

Shin Dand, W Afghanistan

1. vii. 49. ♀ 5×3 — 52 — 149

Obeh, W Afghanistan

15. vii. 49. ♂ 3×2 — 56 — 157

13. vii. 49. ♀ — 47 — 148 juv.

15. vii. 49. 0 — 49 — 138 juv.

Haibak, N Afghanistan

2. viii. 49. ♀ 5×3 — 48 — 142 juv.

0 — 45 — 144 juv.

The two juvenile birds from Haibak and the adult male from Obeh are moulting the body feathers.

The Common Bee-eater is a summer visitor and a numerous passage migrant to many parts of Afghanistan. In 1949 the spring migration took place from the beginning of April to the beginning of May. At Faizabad in Seistan we observed the first arrivals, half a dozen, over the Farah Rud on April 10, thereupon three on the 13th and a dozen on the 18th. At the end of the month and on the two first days of May we saw, usually in the late afternoon, several small parties passing up along the river at Farah. On our trip from Farah over Girishk to Lashkari-Bazar May 4–6 we observed none. The next day, however, it appeared again at Pirzada, and on the rest of our trip over Kandahar to Kabul it was very numerous in many tracts. When we revisited this route in June we saw only few. Therefore, I think, that migration was still going on in the beginning of

May. – During the spring of 1948 I did not see a single bee-eater in central Nuristan which seems to be outside the migration “routes”.

I never observed the autumn migration but most likely it takes place in August since I saw rather many bee-eaters all the way from Doab over the Shibar Kotal and through the Ghorband Valley to Kabul on August 7, but only two when I returned the same way to Bamian on September 5. The next day at 5 p. m. I saw half a dozen pass down the Bamian Valley at a considerable height. These were the only bee-eaters I observed at Bamian where we stayed until October 17.

During the breeding season from the end of May to the beginning of August I observed the bee-eater at the following localities:

Eastern Afghanistan: On June 1 I saw it at many localities from Kabul through the Ghorband Valley to Doab. At Siah Gird they came out from nest holes in a slope close to the road. – Often seen over Kabul and its vicinity at the end of May. It was not very numerous on May 26 between Kabul and Wardak or on June 19 between Maidan and Kabul. In the Logar Valley I only saw it near Hisarak (= Pul Alam) May 23 and 26. None in the Gardez area.

Southern Afghanistan: On June 24–25 we saw it here and there along the road from Kabul to Kandahar. Just west of Kandahar we found it rather common, but we saw none at Girishk or farther west until at Farah where there were a few near the hotel garden on June 27.

Western Afghanistan: At Shin Dand June 28–30 I saw only a few. Between this village and Herat it was again more numerous, especially in a hilly country which we passed. It was rather common around Herat in July, and I also saw it near the Ardewan Kotal on July 6. In the very broad valley west of Herat we only met one bee-eater on a trip to Islam Qala. Contrary to this it was numerous in the valley east of Herat, at any rate as far as Kwaja Chisht. At Obeh we also found it numerous up through the side valley where small parties of adult and young birds ascended to an altitude of 1900 m.

Northern Afghanistan: We saw numerous small and large parties all the way through the hilly country from Qala Nau over Bala Murghab to Maimana July 23–26, but none when north of Maimana we came out into the steppe. It appeared again when east of Aq Chah we approached the foothills. Then they followed us for most of the way over Haibak to Kabul. Because of our fast drive through northern Afghanistan we could not decide if some of the birds observed in late July and early August were already on migration.

Northeastern Afghanistan: In Badakhshan it was rather common

between Faizabad and Barak in the middle of July. At the first of these places I found their nest holes under the same circumstances as at Siah Gird. They had fledged young on July 11. In the valleys above Barak no bee-eaters were seen. None in central Nuristan during the breeding season.

Central Afghanistan: During our stay at Panjao in Hazarajat June 12–17 we only saw a single bee-eater.

(181). *Merops superciliosus persicus* Pallas – Blue-cheeked Bee-eater

Farah, SW Afghanistan

29. iv. 49.	♂	6×4	we. 53	wi. 162
	♂	6×4	— 49	— 160
	♀	3	— 49	— 151
	♀	2	— 45	— 154

Andkhui, N Afghanistan

28. vii. 49.	♀	6×4	— 48	— 151
	♀	2×1	— 39	— 139 juv.

Chasma-i-Sher, N Afghanistan

5. viii. 49.	♂	4×2	— 46	— 159
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The plumage of the female from Andkhui is very worn, but new body feathers had started to grow.

We saw the first half dozen Blue-cheeked Bee-eaters at Farah on April 29; twenty on May 2; the next day a few among the foothills west of Dilaram, and at Lashkari-Bazar on 4th and 5th. The next two days it was more numerous at Girishk and between Pirzada and Kandahar. North of this town they disappeared and we did not see any on our travels to Kabul and central and eastern Afghanistan in May and June. Going down to Kandahar we again saw several just north of that town on June 25 and four single birds near Girishk the next day. Thereafter we did not see it in all western Afghanistan, and in the north not until July 28, in the steppe 50 km. south of Andkhui. There, adults and young in small parties were rather numerous toward Andkhui. It was, however, very local (migration ?) since we observed none again until we reached Chasma-i-Sher on the Danaghori plains. According to MEINERTZHAGEN (1938: 696) it is breeding here, but in the beginning of August we saw only a few birds.

The observations confirm that the Blue-cheeked Bee-eater is a bird of the plains and therefore to some extent replaces *M. apiaster* which prefers the hilly country.

(183). *Coracias garrulus semenowi* Loudon and Tschusi – Roller

Farah, SW Afghanistan

29. iv. 49.	♂	5×3	we. 135	wi. 205
1. v. 49.	♀	7×4	— 113	— 186

Shin Dand, W Afghanistan

30. vi. 49. ♂ 5×3 we. 151 wi. 189

29. vi. 49. ♀ — 127 — 184

Herat, W Afghanistan

2. vii. 49. ♂ 6×4 — 124 — 198

Maimana, N Afghanistan

28. vii. 49. ♀ 3×2 — 105 — 185 juv.

Bamian, Central Afghanistan

24. ix. 49. ♀ — 100 — 195 juv.

These specimens represent the pale, eastern form *semenowi*.

In 1949 we observed the spring migration of the Roller in south-western and southern Afghanistan. I saw the first arrival in the hotel garden at Farah on April 28, and on the next day about a dozen. The sex organs in the two birds collected were rather undeveloped. Along the road from Farah to Girishk it was the most common bird on May 3, perching on the telephone wires all the way through the desolate foothills east of Farah as well as through the steppe. On the 4th and 5th it was numerous at Lashkari-Bazar and Qala Bist, and on the 7th farther east to Kandahar, but decreasing in number when on that date we drove up the Tarnak Valley. Between Mukur and Kabul on the 10th I saw only a few.

Eastern and southern Afghanistan: During the breeding season it was rather scarce in the higher parts of the country. On a trip in eastern Afghanistan from Kabul to Gardez and the Saroti Kotal May 23–26 we saw only a few at Hisarak (= Pul Alam) and a single one at Maidan. Between Kabul and Kandahar there were only very few on June 24–25 and none the next two days between Kandahar and Farah where it was so numerous in the beginning of May. At Farah a few on the 27th.

Western Afghanistan: I saw about a dozen in a willow grove at Shin Dand June 28–30. The sex organs in the two adults collected here had regressed to nearly the quiet stage. The female was moulting the body feathers. At Herat it was rather numerous in the beginning of July. Nest holes were found in the same clay cliffs where also *Columba eversmanni* was breeding. The parents were feeding the young which I could hear chirping from the holes (July 10). At Obek it occurred only in the main valley and the lower parts of the side valley. At Kwaja Chisht adult and juvenile birds were numerous in the tall trees of the village on July 19.

Northern Afghanistan: We found the roller very numerous in the last week of July on our whole journey from Qala Nau over Bala Murghab, Maimana and Andkhui to Mazar-i-Sharif. At Qala Nau it had nest holes in the river banks together with *Columba eversmanni* and *Passer domesticus*.

Between Bala Murghab and Maimana it was especially numerous and sat everywhere on the telephone poles and in the few trees (beginning of the migration ?). It was also common east of Mazar-i-Sharif and at Haibak, August 1–3, but less numerous. Further we saw it on many localities August 4–6 between Haibak and Doab, north of Darra-i-Shikari, where we also saw a few on June 3.

Central Afghanistan : We saw a single bird in the valley west of the Shibar Kotal on June 2 and one between the Unaī Kotal and Panjao on the 11th.

Nuristan : I did not see it in the Pech-Parun Valley during all the spring and summer of 1948, with the exception of a single bird between Gusalek and Rechalam on August 6.

Badakhshan : After having crossed the Hindukush we did not observe the roller until we came down to the lower valleys where the first was seen north of Iskan in the Kokcha Valley at an altitude of about 1500 m. It had a nest hole in a conglomerate wall. The same was presumably the case with one at Faizabad which flew with food on July 11. Besides these we saw only a few around the town as well as in all the parts of the province visited. In the Warduj Valley we observed it only below Supian.

Bamian : During our stay in Bamian from September 6 to October 17 we recorded no autumn migration. Single birds occurred on several days until September 30, but never more than two in all were seen on the same day.

(184). *Upupa epops* – Hoopoe

a. *Upupa epops epops* Linné

b. *Upupa epops orientalis* Baker

a. Baqrabad, Seistan

25. ii. 49. ♂ 4×2 we. wi. 146

Faizabad, Seistan

29. iii. 49. ♂ 6×5 — 70 — 149

Baqrabad, Seistan

9. iii. 49. ♀ 7×5 — 65 — 143

Herat, W Afghanistan

2. vii. 49. ♂ 3×2 — 64 — 153

Panjao, Central Afghanistan

16. vi. 49. ♀ 2 — 57 — 139

Bamian, Central Afghanistan

16. ix. 49. ♂ 2×2 — 77 — 151

5. x. 49. ♀ 4×3 — 69 — 145

b. Pashki, Nuristan

28. v. 48. ♂ 6×4 we. 65 wi. 142

Stiewe, Nuristan

22. vi. 48. ♂ 5×3 — 65 — 148

In the two males collected in February and March the crest feathers are growing as are tail feathers and some secondaries in the specimen from March, and neck feathers in that from February. The female from March is moulting the rump feathers, and the female from October the whole body feathers.

The birds collected outside Nuristan I refer to the nominate form although their general colouration is a little darker. In the two specimens from Nuristan, however, the upper parts are much darker, the breast also is darker and of a more reddish-brown tint, and the crest feathers have only traces of white spots. Dr. VAURIE has kindly compared these two specimens with material of *orientalis* and he informs me that they are not quite typical but come closer to this subspecies.

Specimens collected in December and through the whole of February seem to indicate that some Hoopoes may spend the winter in the lower parts of Afghanistan. Whether they are residents, as SWINHOE believed, or visitors from northern countries is not known. They are, however, not numerous at this time of the year as I spent February 18–22, 1949, in Kandahar and Farah and on journey between these two towns and never saw more than a single bird which appeared on the 20th about 20 km. west of Kandahar. On the same date of 1948 I saw two at Darontah near Jalalabad.

From February 24 to April 21, 1949, we stayed at the lower Farah Rud in Seistan during which the spring migration may be expected to occur. It was rather obscure, however. I saw a single bird south of Farah on February 28, one again at Baqrabad March 3, two on the 8th, and a few the next day. On the 12th we had our largest record with 3, 2, and 1 birds. On most of the following days until 28th we recorded one to two individuals and then single birds on April 1, 13 and 18. On a trip over Farah to Girishk and back again on April 2–6 I observed half a dozen birds along the road. How many of these birds were on migration is difficult to decide. The observations may, however, indicate that the migration took place during March with its peak before the middle of the month. On the other hand, MEINERTZHAGEN (1938: 697) witnessed a mass migration in the Ghorband Valley as late as April 18. In accordance with this we saw the first Hoopoe at Wama in Nuristan on April 12, 1948, and single birds here again on the 23rd and 25th.

From the beginning of May to the beginning of August, during which time the birds may be expected to be on their breeding grounds, the Hoopoe was nowhere abundant, even if present in nearly all the places which we visited in Afghanistan: in the hot areas at Kandahar and Andkhui; up in the Unai Kotal at an altitude of 3100 m., and in the Shibar Kotal; in the fertile valleys of Nuristan; in tamarisk scrub and poplar groves in the broad Hari Rud Valley; as well as in the desolate foothills of Afghan Turkestan.

It is not necessary to give a detailed list of all the localities where we found the Hoopoe during the breeding season, but a few observations from the northeastern parts of the country may be of some interest. In the Pech-Parun Valley we saw only very few birds. At Pashki I often saw 1-2 pairs at a locality with scattered poplars in the bottom of the valley. On May 27 two of the birds were fighting. (I observed the same thing in the Unai Kotal on June 10, 1949, and at Herat in the first week of July.) At Stiewe only a few observations were made of this bird. During our trip from Stiewe over the Weran Kotal to Badakhshan I did not see the Hoopoe until we came down to an altitude of about 2000 m. in the lower Kokcha Valley. When we returned up the Warduj Valley we saw the last one before we reached Zebak (2400 m.). As mentioned earlier, we found it at considerably higher altitudes in other parts of the country.

During our stay at Bamian September 6 to October 17 we recorded no pronounced migration. Single birds or pairs appeared on several days until October 8.

(185). *Jynx torquilla torquilla* Linné – Wryneck

Pashki, Nuristan

8. v. 48. ♀ 8×5 wi. 86

This specimen agrees exactly with breeding birds from northern Europe.

The Wryneck is known only in Afghanistan as a bird of passage. We observed it twice. In addition to the specimen collected EDELBERG saw a single bird in the Kunar Valley in Nuristan on March 2, 1948.

(186). *Picus squamatus* – Scaly-bellied Green Woodpecker

a. *Picus squamatus flavirostris* Menzbier

Synonym: *Gecinus gorii* Hargitt, Ibis 1887: 74 (Padda Sultan, Helmand, Afghanistan)

b. *Picus squamatus squamatus* Vigors

a. Herat, W Afghanistan

4. vii. 49. ♂ 6×4 we. 136 wi. 159 bs. 43

Obeh, W Afghanistan

17. vii. 49. ♂ 6×4 we. 158 wi. 165 bs. 40

b. Gusalek, Nuristan

29. ii. 48. ♀ 10×7 — 170 — 164

Wama, Nuristan

5. iv. 48. ♂ 9×4 — 185 — 173

I have been unable to compare the material with topotypical specimens of the two forms, but the birds from Herat and Obeh differ from the two Nuristan specimens, which presumably are typical *squamatus*, as they show the characters which are said to distinguish this race from *flavirostris*. They are both in the postnuptial moult and the old feathers of the back are strongly faded, the new ones have a fresh green colour which, however, is not as dark as in the specimens from Nuristan. Further, in the birds from western Afghanistan the banding of the secondaries is much more pronounced, the subterminal bands on the under parts much fainter, and the wing measurements and weights conspicuously smaller than in the Nuristan birds. I therefore refer them to *flavirostris*.

In western Afghanistan I found the Scaly-bellied Green Woodpecker only in the Hari Rud Valley where I saw only the two specimens collected. The first one I shot in a poplar grove near Herat, the next one at an altitude of about 2300 m. in the side valley at Obeh. It was perched in the trees in the bottom of the valley from where it flew up the slopes and there settled down in the scrub or sometimes on the bare rocks. Presumably its nest was in an abricot tree a little farther down. The nest hole was about 3 m. up the trunk.

At Gusalek in Nuristan I observed only the specimen collected. At Wama I saw and heard it a few times in the *Quercus* and coniferous woods. Its voice is very like that of *Picus viridis*. The stomach of the specimen collected on February 29 was full of small black ants. I did not see this woodpecker at Pashki or higher up the Parun Valley.

(187). *Dendrocopos leucopterus leptorhynchus* (Severtzov) –
White-winged Pied Woodpecker

Haibak, N Afghanistan

2. viii. 49. ♂ 3×2 we. 67 wi. 128

I have been unable to compare this specimen with material of *leptorhynchus* which appears to be only slightly differentiated. According to the white and black pattern on the wing it seems, however, to belong to *leptorhynchus*. MEINERTZHAGEN (1938: 698) also called his specimens from northern Afghanistan *leptorhynchus* after having compared them with a large series in the Leningrad museum.

I saw this woodpecker only in northern Afghanistan at Faizabad, Jurm and Supian (altitude 1800 m.) between July 7 and 13, 1948, and at Haibak on August 2, 1949. In Faizabad I saw and heard the bird on several occasions, but at all the other localities only single birds were seen.

(188). *Dendrocopos himalayensis albescens* Baker –
Himalayan Pied Woodpecker

Gusalek, Nuristan

20. iii. 48. ♂ ? we. 74 wi. 136 (♂ !)

Wama, Nuristan

14. iv. 48. ♂ 7×4 — 72 — 137

11. iv. 48. ♀ 7×5 — 59 — ?

♀ 4 — 65 — 133

14. iv. 48. ♀ 3 — 65 — 128

3. v. 48. ♀ 3 — 64 — 131

8. v. 48. ♀ 2 — 67 — 131

Pashki, Nuristan

1. vi. 48. ♂ 4×2 — 72 — 132

♀ 8×4 — 64 — 131

I have been unable to compare this series with topotypical *albescens*; there can, however, be little doubt that it belongs to this subspecies.

The Himalayan Pied Woodpecker I found only in the Pech-Parun Valley in Nuristan. In the Gusalek area I saw a few individuals on March 19–20 while visiting the deodar forest which begins here at an altitude of about 2000 m. Around Wama it was more numerous and occurred in different habitats such as walnut trees in the fields and in the oak and coniferous forests. At Pashki too, it was a rather common bird, and I also found it here on grass clad slopes with scrub and scattered conifers as well as in the hazel scrub in the bottom of the valley. At Stiewe, which is situated above the forest region, I saw it twice in the trees around the village and along the river.

On April 5 I heard two individuals calling each other with a persevering *tri-tri-tri-tri-tri*. One of the birds had a powerful voice, the other a weaker one. Drumming I heard for the first time on April 14, it was produced by the female collected in which the sex organs showed that the bird was near the laying season.

An examination of the female sex organs suggests that egg laying starts in the middle of April. In one of the females from April 11 the organs were still rather undeveloped, but in the other female from the same date they were much enlarged. In the female from April 14 they were also enlarged. The females from May 3 and 8 and June 1, however, had presumably passed the laying period.

(189). *Dendrocopos auriceps* (Vigors) – Brown-fronted Pied Woodpecker
D. brunnifrons auct.

Wama, Nuristan

30. iv. 48. ♀ 4 we. 48 wi. 116

The Brown-fronted Pied Woodpecker is known in Afghanistan from Nuristan where GRIFFITH collected a female at Pashat (WHISTLER 1945: 289) and presumably saw another bird in the oak forest above Chagha Sarai on March 7 (1847: 465). I saw it three times in the Pech-Parun Valley where it is much less abundant than *D. himalayensis*. The first time I saw it was up in the deodar forest (ca. 2000 m.) above Gusalek on March 10. The female from Wama I collected in the oak forest at an altitude of 1700m. A second individual, presumably the male, was with it. Inspection of the sex organs revealed that the female would have commenced laying within a few days. On the first May I saw a male, also in the oak forest. My few observations give no details about a difference in habitat preference of the two species of pied woodpeckers.

(190). *Ammomanes deserti* – Desert Finch-Lark

a. *Ammomanes deserti orientalis* Sarudny and Loudon

b. *Ammomanes deserti iranica* Sarudny

c. *Ammomanes deserti phoenicuroides* Blyth

a. Bala Murghab, N Afghanistan

24. vii. 49.	♂	10×5	we. 27	wi. 109
	♂	3×2	— 25	— 99 juv.
	♂	1½×1	— 28	— 105 juv.
	♂	2×1	— 25	— 103 juv.

Maimana, N Afghanistan

27. vii. 49.	♂	6×4	— 29	— 109
	♀	4×2	— 23	— 98 juv.

b. Baqrabad, Seistan

26. ii. 49.	♀	5×3	—	— 100
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Faizabad, Seistan

27. iii. 49.	♀	6×4	— 24	— 99
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Shin Dand, W Afghanistan

1. vii. 49.	♂	6×4	— 27	— 106
	♂	6×4	— 22	— 104
	♂	1×1½	— 25	— (98) postjuv. moult
	♂	½×½	— 24	— 100 juv.
	♂	½×½	— 23	— 101 juv.
	♀	7×4	— 25	— 102

c. Jalalabad, E Afghanistan

20. ii. 48.	♀		— —	— 100
	♀	1	— —	— 96

The specimens represent three different subspecies. In both the adult and juvenile birds from Bala Murghab and Maimana in northern Afghanistan the upper parts are considerably paler than in the rest of the series; they are even paler than 6 specimens of *cheesmani* from Salehabad and Kulmahak in southwestern Iran (PALUDAN 1938, Jour. Orn. **86**: 597, sub nomen *fratercula*). In his comprehensive review of the Asiatic larks VAURIE (1951, Bull. Am. Mus. Nat. Hist. **97**: 459) refers the pale birds from northern Afghanistan to *orientalis*.

The birds from Seistan and those collected between Shin Dand and Herat in western Afghanistan are the darkest of the series. The different seasons taken into consideration, they compare rather well with one female and one male of *iranica* collected in Kainat, eastern Iran, on September 19 and 22.

In both specimens from Jalalabad the upper parts are slightly paler, more greyish than in the specimens of *iranica*. I think these two specimens are probably *phoenicuroides* but this form requires further study because, although VAURIE had some specimens that were brown and lacked the characteristic grey tinge of *iranica*, he also had one that was grey and which he says is not separable from the latter. This specimen is probably similar to my two specimens from Jalalabad which are even more greyish than my specimens of *iranica*.

The adult birds from July 1 are in very worn plumage. Of the young birds from the same date one is in the complete juvenile moult. In the adult male from July 24 the feathers on the head are growing.

We occasionally saw the Desert Finch-Lark along the road from Dilaram over Farah south to Salian in Seistan on February 21–23. On the steppe around Faizabad and Baqrabad on the lower Farah Rud it was very scarce. I think I saw only the two specimens which we collected. Their gonads were at an inactive stage. On May 3 we saw a few pairs in deserted stony foothills east of Farah and on the 6th some between Girishk and Pirzada. When on July 1 we drove from Shin Dand to Herat we found it numerous at an altitude of about 1400 m. on stony slopes in the foothills. Here it was mostly in small groups of 3–6 birds, presumably family parties. – In the foothills north of Herat I may have glimpsed one or two birds on July 2.

Also north of the main mountain range we found the Desert Finch-Lark only at a few localities. The family collected near Bala Murghab appeared on a small, very dry area close to a tamarisk scrub on the river-side. At Maimana I saw one to two family parties on the rock slopes of a narrow valley. In a similar locality I found a few between Tashkhurgan and Haibak

on August 1. Around this latter town it occurred both on loamy slopes and in canyons but it was rather scarce.

Along the road from Kabul over Saroti to Jalalabad it was rather common on February 19, 1948, where the road follows the Kabul River through a narrow valley or over a broad and steppe-like vale. At Darontah near Jalalabad it appeared on the driest and most stony parts of the valley. I also saw it in the Kunar Valley on February 22.

(191). *Alaemon alaudipes doriae* Salvadori – Desert Lark (Bifasciated Lark)

Baqrabad, Seistan

26. ii. 49. ♀ 8×4 we. wi. 130 bs. 27

Faizabad, Seistan

21. iii. 49. ♂ 9×5 — 51 — 143 — 30

0 specimen in alcohol

9. iv. 49. ♂ 6×5 we. 50 wi. 143 bs. 31

♂ 8×5 — 49 — 139 — 30

♂ 8×5 — 47 — 139 — 31

♂ 8×6 — 48 — 140 — 28

♂ 9×6 — 47 — 139 — 29

♀ laying — 47 — 124 — 26

♀ 3 — 46 — 127 — 25

Dilaram, S Afghanistan

21. ii. 49. ♂ 4×2 — — — 142 — 27

I have been unable to compare these specimens with topotypical *doriae*. According to VAURIE (l. c. p. 466) all birds from Iran, Afghanistan and Sind belong, however, to this subspecies.

The Desert-Lark occurs only in southern Afghanistan. I saw single birds in the Tarnak Valley, 40 km. north of Kandahar, and near Pirzada west of Kandahar, on May 7, and 2-1-1 birds along the road east and west of Girishk on June 26. Near Dilaram we observed a few single birds or pairs on February 21, April 3, May 3, and June 27. On the steppe between Farah and Hamun-i-Sabari we found it in several localities during our stay in that area February 27 to April 20, but it was not very numerous.

In Seistan we found it in different types of the steppe but always close to small bare areas where the soil was as an earthen floor. In other localities we also saw it near the sun-burned "grass" patches in the stone deserts.

The males collected March 21 and April 9 had strongly injected testes at their maximum size. An examination of one of the females collected on April 9 revealed an ovary with two calyces and one large follicle which indicate a full clutch of 3 eggs. Also in the other female from the same day

the sex organs were enlarged, however not to their maximum size. Presumably this female had already passed laying.

I often saw the males perched on small knolls from where they started the courtship flight. This was preceded by two whistling and lengthy *djü*, *djü* which reminded me somewhat of the melancholy whistle of the Golden Plover in the heather "deserts" of Jutland. After this introduction the Desert Lark ascended vertically 5–8 m., made an oblique volt and descended again vertically with full stretched wings and uttering a continuous *djü-djü-djü-djü*. At this time of the year it was rather easy to find the bird if one went out before the temperature had risen too much. On other occasions it may be rather difficult to find it because it is a strong runner and prefers to disappear on foot.

(192). *Calandrella rufescens* subspecies ? – Lesser Short-toed Lark

Mukur, E Afghanistan

8. v. 49.	♂	6×4	we. 23	wi. 97
	♂	7×4	— 20	— 99
	♂	10×6	— 23	— 104
	♂	9×5	— 22	— 99
	♀	laying	— 27	— 97

Dr. VAURIE has kindly compared these specimens which he found have a different bill, shorter than *persica* (synonym *seistanica* Sarudny & London, Orn. Jahrb. 15: 222 (1904 – Seistan)), and show less white in the tail but otherwise are identical in colouration with specimens from Seistan in exactly the same plumage. He has informed me, however, that they are apparently not the same as the specimens he had examined (1951, Bull. Am. Mus. Nat. Hist. 97: 468) also from Mukur but collected in October, not in May. He says that in his specimens the bill is even shorter than in mine. The breeding population at Mukur may represent a new subspecies but the material at hand is too scanty to warrant the description of a new form.

On the drive May 7, 1949, from Kandahar up through the Tarnak Valley we observed some unidentified *Calandrella*. At Mukur we went out to collect and found here all three species represented, and all three in the same habitat (Fig. 11), namely on very dry, uncultivated fields at the border of the oasis. All the specimens we collected were in breeding conditions. The males had large, injected testes and in two specimens we noticed very enlarged *vesiculae seminalis*. The female had an egg without shell in the oviduct. On the ovary 3 calyces were visible and the largest follicle had a diameter of only 2 mm.; this may indicate a full clutch of 3 eggs.

Mukur was the only place where we identified this species with certainty. SARUDNY and LOUDON found it "in enormen Mengen" in Iranian Seistan. In spite of the considerable number of *C. cinerea* which we collected in Afghan Seistan we never succeeded in recording the Lesser Short-toed Lark there.

(193). *Calandrella cinerea longipennis* (Eversmann) – Short-toed Lark

Lower Farah Rud, Seistan, 10. iii.—10. iv. 49.

Weight 23 ♂♂: 19–25 (22,3); 9 ♀♀: 19–22 (19,9)

Wing 24 ♂♂: 91–98 (93,8); 9 ♀♀: 85–90 (87,7)

Dilaram, S Afghanistan

21. ii. 49. ♂ 2×1 we. wi. 92

Herat, W Afghanistan

6. vii. 49. ♂ 1×1½ — 18 — 86 juv.

Mukur, E Afghanistan

8. v. 49. ♀ 2 — 19 — 85

Bamian, Central Afghanistan

14. x. 49. ♀ 3×2 — 20 — 90

Dr. VAURIE has kindly compared the specimens from the breeding season and found that they are closer to *longipennis* than to *artemisiana*. In the spring series from Seistan there is a slight variation as to the colour of the upper parts which in some specimens is more greyish, in others more brown, but VAURIE believes, however, that they are all probably *longipennis*.

On February 16–17, 1949, on our drive through snow covered valleys from Ghazni south to Kandahar we saw several flocks of small larks which we did not identify with certainty. Between Dilaram and Farah on 21st we observed similar flocks and a bird, which we collected, turned out to be a Short-toed Lark. At the beginning of our stay in Seistan I saw nothing of this lark, presumably because the fields around Baqrabad were very dry and abandoned. However, when on March 10 and 14 I visited the more fertile fields around the neighbouring village Faizabad I found it to be rather numerous there. On these two days I collected 10 birds of which 9 were males and only one, with shattered sex organs, presumably was a female. Later in the month the females were more common. This may indicate a difference between the sexes as to the time of migration. On the 17th we also saw several flocks in the fields between Kurki and Kang. We also found it on the steppe, especially where a *Salicornia* sp. was common, and in open sites in the tamarisk scrub at the estuary of Farah Rud. From about March 25 their number decreased. However, on a trip from Faizabad

to Girishk and back again on April 2–7 we saw still small flocks at several localities. After the 11th we observed none around Faizabad.

In eastern Afghanistan we collected at Mukur on May 8, 1949, an adult female in the same dry fields (Fig. 11) with *C. acutirostris* and *C. rufescens*. An examination of the gonads revealed an ovary which measured 6×3 mm. and in which the largest follicle was 2 mm. in diameter. The wall of the oviduct showed some thickening, but it was far from the maximum size.

In the valley south of the Ardewan Kotal, north of Herat, I collected a juvenile male on July 6, 1949, at the same place with *C. acutirostris*.

MEINERTZHAGEN (1938: 512) says that the females he collected at Danaghori in Afghan Turkestan were almost certainly breeding there. The two birds I collected at Mukur and near the Ardewan Kotal may indicate that the species also breeds south of the central mountain ridge. These records increase the zone of overlap between *C. cinerea* and *C. acutirostris*.

The bird from Bamian, October 14, I collected in harvested fields out of a flock of about 20. When I flushed these birds, I did not notice the bell-like sound which I usually heard from the parties of *C. acutirostris*. These birds in Bamian were the only ones I saw on autumn migration.

(194). *Calandrella acutirostris acutirostris* Hume –
Hume's Short-toed Lark

Gardez, E Afghanistan

24. v. 49.	♂	5×4	we. 20	wi. 92
	♀	2	— 21	— 89
	♀	2	— 19	— 88

Mukur, E Afghanistan

8. v. 49.	♂	7×4	— 21	— 92
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Maidan, E Afghanistan

26. v. 49.	♂	6×3	— 21	— —
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Unaī Kotal, Central Afghanistan

10. vi. 49.	♂	8×5	— 23	— 93
	♂	7×5	— 21	— 91
	♀	2	— 20	— 90

Panjao, Central Afghanistan

13. vi. 49.	♂	6×4	— 22	— 98
14. vi. 49.	♂	4×3	— 19	— (90)

Shibar Kotal, Central Afghanistan, 2. vi. 49.

Weight	6 ♂♂: 19–22 (20,5); ♀♀: 19, 20, 21, 21
Wing	6 ♂♂: 90–95 (92,5); ♀♀: 84, 86, 88, 89

Bamian, Central Afghanistan, 6.–23. ix. 49.

Weight	♂♂: 20, 20, 21, 21, 23; ♀♀: 18, 20, 21
Wing	♂♂: 89, 93, 94, 95, 96; ♀♀: 88, 89, 90

Shin Dand, W Afghanistan

1. vii. 49. ♀ 5×3 we. 19 wi. 91

Ardewan Kotal, W Afghanistan

6. vii. 49. ♂ 7×5 — 21 — 91

♂ 7×5 — 21 — 95

♂ $1\frac{1}{2} \times 1\frac{1}{2}$ — 23 — 89 juv.

♀ 6×3 — 17 — 86

Obeh, W Afghanistan

20. vii. 49. ♂ 2×1 — 21 — 85 juv.

♀ 2×1 — 19 — 83 juv.

All the adult specimens from the end of May to July 1 are in worn plumage, the post nuptial moult having not yet started. Those from September are in fresh plumage in which one or two of the outer primaries are still growing in the birds from the 6th and 7th. In one of the males collected on September 6 the growth of the body feathers had not been completed.

I have not been able to compare this series with toptotypical *acutirostris* or with specimens from other parts of the breeding area. VAURIE (1. c. p. 477), however, provisionally refers the populations of Afghanistan to nominate *acutirostris* to which it seems closest.

MEINERTZHAGEN (1938: 512) found Hume's Short-toed Lark breeding in Unai Kotal, Shibar Kotal, and in the Ghorband Valley; and KOELZ (VAURIE 1. c.) collected it as far west as at Sufak in the Band-i-Turkestan. My own investigations from Shin Dand and Ardewan Kotal show that it breeds still farther to the west in Afghanistan.

Eastern Afghanistan: The adult male from Mukur I collected in dry, uncultivated fields at the border of the oasis where I also collected the two other *Calandrella* species (Fig. 11). The testes were near their maximum size and the *vesiculae seminalis* were somewhat enlarged. At Gardez we also found it in fallow fields. The sex organs in the birds we collected here were enlarged but not at their maximum stage.

Central Afghanistan: On June 10 we found it at an altitude of about 3100 m. both east and west of the Unai Kotal. In the two males we collected the testes were at their maximum size and also the *vesiculae seminalis* were rather enlarged, as was the oviduct in the female. — In the middle of June it was rather common at Panjao on the stony slopes from just above the bottom of the valley up to an altitude of well over 3000 m.

When we crossed the Shibar Kotal on June 2, 1949, we found it abundant in the fields between 2900 and 3000 m. They were mostly in pairs. The sex organs in the females were only slightly enlarged. In one of the males the testes were injected and at their maximum. On the 5th and 6th we saw

several in cultivated fields in the Bamian Valley and in the higher valleys running to the Cham Kotal.

Western Afghanistan: We first observed this lark on July 1, when we shot a female 70 km. north of Shin Dand along the road to Herat. In this bird the gonads had passed the active stage. This was also the case in the birds which we collected on July 6 in the cultivated fields at about 1640 m. in the Ardewan Kotal. On the same day we saw flocks of juvenile birds along a small water-pipe in a very deserted part of the valley at 1300 m. elevation. In the main Hari Rud Valley I only obtained two specimens and they were both juvenile. They were shot in fields at Obek, July 20, at a place where four days earlier I had collected without finding any larks at all.

At Bamian after our arrival on September 6 I saw a flock of 30–50 individuals every day in some particular fields. At the end of the month their number decreased and on October 5 I saw only five. After that date and until our departure we saw none. In the same place I observed the species during our visit on June 5. Therefore I imagine that the birds observed in the autumn were the breeding population, and that they departed at the end of September or the beginning of October. We noticed no passage migration.

(195). *Melanocorypha bimaculata torquata* Blyth –
Eastern Calandra Lark

Melanocorypha torquata Blyth, Jour. As. Soc. Bengal. 16: 476 (1847 – Afghanistan)

Faizabad, NE Afghanistan

11. vii. 48. ♂ 3×2 we. 56 wi. (121)

Ardewan Kotal, W Afghanistan

6. vii. 49. ♂ 10×5 — 60 — (124)

♂ 8×4 — 47

♂ 1/2×1/2 — 45 — 117 juv.

♀ 1/2×1/2 — 44 — 110 juv.

I have not been able to compare the three adult males in badly worn plumage with material of topotypical *M. b. bimaculata* from Talych, or with true *bimaculata* at all. VAURIE (l. c., p. 482), however, found that the populations from northeastern Iran, northern Afghanistan, Transcaspia, and probably Turkestan are paler and greyer in worn plumage than birds from Talych and Zagros. For the grey, eastern subspecies he revived the name *torquata*.

During all the time spent in Afghanistan I found the Eastern Calandra

Lark only at two localities. At Faizabad in Badakhshan I saw a party of half a dozen birds on July 11 in the very dry, harvested fields on the low hills near the town. At an altitude of about 1650 m. in the Ardewan Kotal north of Herat it was rather common in the cultivated areas. In spite of the late season several of the birds were singing. The postnuptial moult had not yet started.

This lark was a very common cage bird in Afghanistan.

(197). *Eremophila alpestris albigula* (Bonaparte) – Horned Lark

Shibar Kotal, Central Afghanistan, 2. and 7. vi. 49.

Weight ♂♂ 7 ad.: 34–39 (37,1); juv.: 31; ♀♀: 32, 39

Wing ♂♂ 7 ad.: 116–123 (119,6); ♀♀: 108, 108

Darra-i-Shahidan, Central Afghanistan, 28. ix. and 6. x. 49.

Weight 13 ♂♂: 29–42 (38,9); ♀♀ 7 ad.: 34–42 (37,0); 1. winter: 34, 35

Wing 12 ♂♂: 116–124 (120,7); ♀♀ 7 ad.: 111–116 (112,4); 1. winter: 103, 110

Darra-i-Shahidan, Central Afghanistan

6. vi. 49. ♂ 6 × 4 we. 30 wi. 121

Unai Kotal, Central Afghanistan

10. vi. 49. ♀ 4 — 40 — 104

♀ 4 × 2 — 30 — — juv.

Panjao, Central Afghanistan

14. vi. 49. ♀ 1½ × 1 — 33 — 109 juv.

Tirpul, W Afghanistan

9. vii. 49. ♂ ½ × ½ — 36 — 108 juv.

The adult autumn specimens are in fresh plumage. In many specimens one or more of the three outer primaries were still growing as were also many feathers of the body and especially of the head.

I have not been able to compare my series with material from the surrounding countries. As the frontal band and throat in the fresh moulted birds are white or in a few individuals with a faint brownish tinge, but not sulphur yellow as in *penicillata*, they must belong to *albigula* as also stated by VAURIE on the material collected by KOELZ in Afghanistan.

On June 2, 1949, I found the Horned Lark rather common between 2900 and 3000 m. altitude in the Shibar Kotal where it appeared especially in the pebble strewn areas around the ridges, but it was also seen in the cultivated fields or together with *Emberiza buchanani* in high tussock grass. The birds collected had gonads of maximum size. In a male much enlarged *vesiculae seminales* were noticed. One of the females had an egg without shell in the oviduct, three *calyces* on the ovary, and no follicles in the state of maximum growth; this indicates a full clutch of three eggs.

As on June 7 at this locality we also collected fledged young, the female mentioned presumably was a repeat-layer or she was going to start a second brood. The well developed gonads in the males speak, I think, for the latter possibility. – When on October 18 we passed again through the Shibar Kotal we saw several small parties in the ploughed fields.

On June 6, 1949, we tried to drive from Bamian to Band-i-Amir but we were forced by a snow storm and a slippery road to turn back at an altitude of about 3200 m. before we reached Cham Kotal. On this trip we saw the first Horned Larks in the cultivated fields of the Shahidan Valley at an altitude of about 2900 m. where adults with fledged young occurred. After the snow storm had set in, it was especially numerous, presumably forced down from the surrounding mountains. On September 28 we succeeded in driving through to Band-i-Amir and saw again the first larks in the Shahidan Valley and from then nearly everywhere in the high-situated valleys as well as on the dry slopes at the passes with very poor vegetation. During visits on October 6 and 13 we found a smaller number at these localities.

In the Unai Kotal, at an altitude of about 3200 m., we saw only on June 10 two Horned Larks, a female together with a fledged young in which the outer primaries were still growing. The ovary of the adult female was partly destroyed, but a follicle with a diameter of 4 mm. and yellow in colour was visible. This together with an oviduct of nearly maximum size makes it very likely that the female was going to start a second brood. – Besides the juvenile bird collected at Panjao, an adult one was seen on a ridge at an altitude of 3000 m.

The male from Tirpul in the Hari Rud Valley is in juvenile plumage. It has no yellow tint on throat and breast, presumably owing to bleaching. The feet are dark. It was surprising, at this time of the year, to find a Horned Lark down at an altitude of 900 m. in the main valley, where it can only be a straggler.

On the mountain ridges in Nuristan, on our crossing of the Weran Kotal, and in the higher valleys north of the Hindukush main range, I looked in vain for this lark until July 16, 1948, when I saw a single one near the pass between Sanglich and Maghnaol, in the same area in which KOELZ had collected it.

(198). *Galerida cristata magna* Hume – Crested Lark

Lower Farah Rud, Seistan, 9. iii.–20. iv. 49.

Weight 18 ♂♂: 31–43 (39,0); 9 ♀♀: 37–51 (41,9)

Wing 18 ♂♂: 105–116 (110,7); 11 ♀♀: 100–106 (103,1)

Dilaram, S Afghanistan

21. iii. 49. ♂ 2×1 we. wi. 113

Shin Dand, W Afghanistan

28. vi. 49. ♂ 9×5 — 36 — 108

29. vi. 49. ♂ 10×5 — 38 — 112

♀ 2 — 34 — 101

Herat, W Afghanistan

6. vii. 49. ♂ $1\frac{1}{2}\times 1\frac{1}{2}$ — 40 — 105 juv.

♂ — 40 — 105 juv.

2. vii. 49. ♀ $3\times 1\frac{1}{2}$ — 33 — 94 juv.

Bala Murghab, N Afghanistan

26. vii. 49. ♀ 7×5 — 42 — 106

Andkhui, N Afghanistan

29. vii. 49. ♀ 6×3 — 32 — (100)

♀ 5×4 — 40 — 105

Mazar-i-Sharif, N Afghanistan

1. viii. 49. ♂ $2\times 1\frac{1}{2}$ — 43 — 108

Faizabad, NE Afghanistan

11. vii. 48. ♂ 7×5 — 39 — 110

♂ 6×4 — 40 — 109

♂ 7×5 — 40 — 110

♂ 7×5 — 34 — 106

Kabul, E Afghanistan

30. v. 49. ♂ 5×4 — 37 — 108

♂ 5×4 — 35 — 104

♀ 7×5 — 32 — 99

Gardez, E Afghanistan

24. v. 49. ♂ 9×6 — 38 — 108

♂ 7×5 — 37 — 108

♀ 3 — 32 — 101

♀ laying — 41 — 102

Darra-i-Shahidan, Central Afghanistan

13. x. 49. ♀ 4×3 — 39 — 107

Bamian, Central Afghanistan, 21. ix.–12. x. 49.

Weight ♂♂: 43, 44, 44; ♀♀: 34, 36, 37, 39

Wing ♂♂: 112, 114, 116; ♀♀: 103, 104, 105, 106

The material from the spring and summer shows that even in specimens from the same locality and from the same time of the year there is some variation in the colour of the upper parts ranging from greyer to a shade more brownish. Also the intensity of the brownish tint of the under parts shows some variation. This, in connection with the very great change of colour during the year owing to wear and bleaching, leads one to question the validity of the many subspecies that have been described. On the basis

of my material and following the opinion of VAURIE (l. c. p. 495) based on very large series, I refer all the Afghan populations to *magna* (trend "vambery"). A few observations may, however, be worth mentioning. WHISTLER (1945: 288) says that of 4 birds collected by GRIFFITH at Pashat (Pushut) in the Kunar Valley, three would certainly pass as *chendoola*, the Indian form, which is smaller and darker than *magna*. As to colour my own specimens from eastern Afghanistan (Kabul and Gardez) are not comparable because of wear, but the wing measurements agree with those of the *magna* group, not with those of *chendoola*. VAURIE furthermore refers two adult breeding specimens from Parachinar in the North West Frontier Province to *magna*, not to *chendoola*. This may indicate that the Indian form is not represented in Afghanistan. – In the birds on migration, which I collected at Bamian, the wing measurements tend to be larger than in the specimens collected in breeding areas of Afghanistan. This shows perhaps a trend to longer wings in the north of the breeding area of "vambery", probably related to a more pronounced tendency to migrational movements.

In two females from July 20 and 29 and in the male from August 1 the moult of the body feathers has started. The Bamian specimens, collected between September 21 and October 13, had finished the moult except the male from September 24 in which a few of the body feathers were still growing.

The Crested Lark is widely distributed in Afghanistan but avoids the higher, mountainous parts. Although resident in most of its breeding range, it leaves the higher places during severe winter.

Eastern Afghanistan: In the vicinity of Kabul it is a common breeding bird. We saw it at many localities along the road when on June 1, 1949, we drove up to Charikar at the entrance of the Ghorband Valley. The next days, however, we did not see it on our way up the Ghorband, over the Shibar Kotal, through the Darra-i-Shikari to Doab, and back to the Bamian Valley and up the high valleys west of Bamian in the direction of Band-i-Amir. On August 6–7, coming from north, we had the opportunity to check the limits of the distribution. In the Surkh-ab Valley we saw the last Crested Lark somewhere between Doshi and Doab, and it did not appear again until we reached Charikar. – In the Maidan Valley we observed it in the lower part of the valley until 23 km. before Sar-i-Chashma was reached but not farther up the valley, or on our way over the Unai Kotal to Panjao in Hazarajat (June 10–19, 1949). In the broad valley between Kabul and Kandahar and around Gardez it is a common bird during the breeding season, but it seems to leave the higher parts during the winter, since we

did not see it until south of Mukur when on February 16–17, 1949, we drove from Kabul to Kandahar.

On February 19–20, 1948, I found it rather common in the wide valley along the Kabul River northwest of Jalalabad, and on August 9 I saw it in the lower Kunar Valley. In Nuristan I never observed it, and on the excursion in July over the Weran Kotal in Hindukush to Faizabad in Badakhshan I saw it only around this town.

Southern Afghanistan: On February 18, 1949, we often saw it on the roads and streets of Kandahar, and on the 20th–21st we found it to be the most common bird along the road from Kandahar to Farah. It was most numerous near cultivated fields and avoided completely the really desolated areas. On April 3–6 we found the status rather unchanged between Farah and Girishk. In the beginning of May, however, we saw remarkably few birds, presumably because the birds were occupied with incubation or care of young, for at the end of June it was common again along this road.

The Crested Lark was a characteristic bird of the lower Farah Rud where we found it to be common, especially on the abandoned fields around Baqrabad while it was less numerous on the cultivated area at Faizabad. There were also a few in the more fertile parts of the steppe far from the villages. About the middle of March its number seemed to decrease somewhat. It could not be decided, however, whether it was because of the spread of the birds at the beginning of the breeding season or because a real decrease had taken place. An examination of the gonads revealed that these were slightly enlarged at the beginning of March, at which time the birds were still in small parties. In many males from the end of the month the testes were injected and at, or near, their maximum size. The song was now heard all over the fields. The birds mostly sang on wing. The song maximum was reached in the beginning of April. In the females the maximum size of the gonads was not attained until the beginning of April. A badly damaged female (not skinned) from April 9 was in laying condition. In a female from the 14th the oviduct was at its maximum size and the ovary had two dark yellow follicles with a diameter of 7 and 4 mm., which showed that the bird would have laid on one of the next days. In a female from the 17th three calyces were visible on the ovary which contained only small follicles. This indicates that the female had recently laid a clutch of three eggs. The clutch size of one of the females from Gardez (May 24) seems also to have been of three eggs only. The last egg was in the oviduct and three calyces were visible on the ovary; the follicles showed a continuous development as to colour and size, the largest had a diameter of 3 mm. and would not have been developed further during that laying.

Western Afghanistan : At the end of April we found it a very common bird around Farah, especially along the river and near the cultivated areas. The same was the case at Shin Dand June 28–30, 1949. It was strange at that time of the year not to find a single young bird at this locality; maybe they had gathered in flocks made up of such juvenals which lived in places I did not visit. On our drive, July 1, through desolate foothills farther north to Herat we saw the lark at several places. In the Hari Rud Valley we found it at suitable habitats all the way from Islam Qala at the Iranian border to Obeh east of Herat. Farther east, however, it disappeared and presumably it avoids all the central, mountainous Afghanistan. At Obeh we only saw it in the main valley, not in the foothills or in the side valley. On an excursion of July 6 to the Ardewan Kotal I saw it at several localities but not in the fields in the pass itself. At an altitude of about 1300 m. a party of about 20, exclusively young birds, stayed at a small water-course in a very desolate landscape.

Northern Afghanistan : On July 22 we drove from Herat over the Sauzak Kotal (2500 m.) to Qala Nau. The Crested Lark followed us all the way through the main valley and the lower parts of the side valley, but it disappeared long before we reached the pass, and we did not see it again until we came to Qala Nau. From there it was common at many localities all along our route in northern Afghanistan: Bala Murghab, Maimana, Andkhui, Mazar-i-Sharif, Haibak and over the Danaghorī plains to the Surkh-ab Valley where it again disappeared before we reached Doab. Along this route it was also most common in the areas under cultivation and lacking at the most desolate places.

Migration : As emphasized above I never observed the Crested Lark in the higher parts of Afghanistan during the breeding season. In the Bamian area also I did not see it on the excursions in June nor in the beginning of our stay there in the autumn. However, on September 21 and 24 single birds appeared, and three on October 4 and on the 10th two parties of 5 and 12 birds, and then again a few at most every day until our departure on the 18th. Some of the birds were collected even at an altitude of about 2800 m. These observations clearly show that a migration takes place and they support very well other investigations which imply some migrational movements in this species (VAURIE l. c. p. 500).

(199). *Alauda arvensis dulcivox* Brooks – Skylark

Ardewan Kotal, W. Afghanistan

6. vii. 49. ♂ $\frac{1}{2} \times \frac{1}{2}$ we. 34 wi. 109 juv.

My only observation of the Skylark is this juvenile male which I collected at an altitude of about 1650 m. in the corn fields in the Ardewan Kotal. The postjuvenile moult had just started. The only other specimen collected in Afghanistan during the breeding season was taken by KOELZ on July 9 at Gandachesma in Badakhshan. Both these localities are at the southern border of the overlapping zone between *A. arvensis* and *A. gulgula*.

(200). *Alauda gulgula* – Little Skylark

a. *Alauda gulgula inconspicua* Severtzov

b. *Alauda gulgula lhamarum* Meinertzhagen

a. Gardez, E Afghanistan

24. v. 49. ♂ 8×4. we. 19 (?) wi. 96
 ♂ 10×7 — 27 — 94

Shin Dand, W Afghanistan, 28.–29. vi. 49.

Weight 6 ♂♂: 25–27 (26,2); ♀♀: 24, 26, 27

Wing 6 ♂♂: 91–99 (95,3); ♀♀: 90, 90, 95

Herat, W Afghanistan

4. vii. 49. ♂ 2×1½ we. 25 wi. 92 juv.

5. vii. 49. ♂ 8×5 — 30 — 101

Obeh, W Afghanistan

16. vii. 49. ♂ 1×½ — 26 — 92 juv.

20. vii. 49. ♂ 2×1 — 27 — (90) juv.

♂ 2×1 — 25 — 89 juv.

♀ 3×2 — 25 — (92)

Andkhui, W Afghanistan

29. vii. 49. ♂ ? — 29 — 96 juv.

Bamian, Central Afghanistan, 21. ix.–7. x. 49.

Weight ♂♂: 25, 26, 27; ♀♀: 26, 27, 29

Wing ♂♂: 96, 96, 99; ♀♀: 88, 92, 94

b. Tilli, NE Afghanistan

18. vii. 48. ♂ 8×6 — 29 — 101

♂ 11×6 — 30 — 101

♂ 8×5 — 24 — 99

The adult birds taken while breeding from Gardez, Shin Dand, Herat, and Obeh are identical in colouration and size. They are undoubtedly referable to *A. gulgula inconspicua* which, according to VAURIE (l. c. p. 519), inhabits the area from Transcaspia and Turkestan through Afghanistan to western India. Distinct from this series are the three specimens collected at Tilli in Badakhshan at the same time of the year and therefore fully comparable. The three birds are quite alike and differ from the other specimens as follows: 1) The upper parts are darker because

the light feather fringes are less conspicuous and the central parts of the feathers are nearly black brown, not dark brown. 2) On the under parts the breast region only has a brown tinge. 3) The streaks on the breast are more pronounced. 4) The wing measurements are larger. VAURIE (p. 519) says that "... in northeastern Afghanistan north of the Hindu Kush, the population appears to be a little darker. The difference may be due to the state of the plumage ..." but he continues "... it is possible also that a certain amount of gene flow takes place from the darker *lhamarum* which replaces *inconspicua* in neighboring Gilgit". He finds, however, that the populations in northeastern Afghanistan are only slightly different from *inconspicua*, and he refers them to the latter. In this connection it is of interest that IVANOV (1940: 180) because of colour and size differences, refers the populations from the higher parts of Tadjikistan to *guttata* (= *lhamarum*) and those from the lowland in western and northern Tadjikistan to *inconspicua*. Dr. VAURIE has kindly examined the specimens from Tilli which he found very close to *lhamarum* though perhaps slightly paler, the difference, however, being extremely slight.

The specimens freshly moulted from Bamian of course can only be compared with caution with the birds in worn plumage from the other localities. The dark upper parts is reminiscent to some extent of the birds from Tilli but the faint rufous tint on the upper parts, especially on the flanks, of the Bamian specimens is quite lacking, however, in the birds from Tilli. Dr. VAURIE has also examined these specimens from Bamian and found them to be true *inconspicua* which with wear becomes much paler.

The adult birds from the end of May to the end of July do not show any sign of starting the moult. In the adults and subadults from Bamian the moult is nearly finished. During skinning, however, it was noticed that some of the body feathers in the two females from September 21 were still growing. The outermost primary was also growing, as it was in a male from October 7. In two juvenile birds from July 16 and 20 the postjuvenile moult had started, in two from the 4th and the 20th it had not, and in one from the 29th it was nearly finished but the three outer primaries were still of the immature plumage.

On May 24, 1949, we saw a few Little Skylarks in the fields around Gardez. The testes in both males which we collected were injected and at their maximum size. In one of them we noticed large *vesiculae seminales*. – At the end of June I found it common at Shin Dand where it lived in the same habitat as *Galerida cristata*, namely on the grass covered areas along the river and in the cultivated fields. An examination of the gonads revealed that the testes were large, but not at their maximum size. The

ovaries were in inactive stage. We saw no fledged young. – In the Hari Rud Valley I found it in the same habitats, but it was not numerous and only recorded at Herat and Obeh. – From northwestern Afghanistan I have only a single specimen which was shot in the fields near Andkhui. I tried to find more specimens but without results.

In Nuristan I saw a few occasional larks in the fields of Gusalek in February and March, 1948. I was not sure whether they were *Alauda* or *Calandrella*, and I failed to collect any. Later I did not see any skylarks in Nuristan. Having crossed the Hindukush to Badakhshan I found *Alauda gulgula* in July in cornfields at several localities below 2700 m. in the valleys of Kokcha, Warduj and Sanglich. At Tilli it was rather numerous and sang over all the fields. The song and the large, injected testes in the males may indicate that they were just going to start a new brood. I saw no young from an earlier brood, but one bird had a caterpillar and a crane-fly in its bill so it had presumably nestlings.

The occurrence of the Little Skylark at Bamian was a little curious. From our arrival at the place on September 6 I did not observe it until the 21st when I found about a dozen individuals in a meagre lucerne field at a locality I had not visited before. Later I saw also a few in the main valley. It was seen only on the dates where specimens were collected. Usually this species is not assumed to be migratory and because of the state of moult in the Bamian specimens it is also very unlikely that they were on migration in spite of their somewhat puzzling appearance.

(201). *Riparia riparia diluta* (Sharpe and Wyatt) – Sand Martin

Faizabad, Seistan, 12.–16. iv. 49.

Weight ♂♂: 14, 14, 15; ♀♀: 14, 15

Wing ♂♂: 102, 103, 108; ♀♀: 102, 108

The under parts in these specimens are paler and the breast band more irregular than in Danish breeding birds. As these are the characteristic differences between *diluta* and the nominate form, I refer the series to *diluta*.

On February 20, 1948, I saw some martins which undoubtedly were Sand Martins over the Kabul River northwest of Jalalabad. In the spring of 1949 the first arrival was observed on March 26 on the lower Farah Rud in Seistan. The next was not observed until April 12 when we saw half a hundred over the fields of Faizabad. On the 16th hundreds were catching insects over the river. I believe they were all migrants for the next days we did not see a single bird. The testes in the birds collected were large and injected and rather in contrast to the undeveloped organs in the females,

where the oviducts were only slightly thickened. – At Farah we recorded a single bird on April 30.

We found it a very scarce breeding bird in the parts of Afghanistan visited because in the months from May to August we made only very few observations. We saw a few at Tirpul in the Hari Rud Valley on July 9, at Bala Murghab on the 24th–25th, and at Chashma-i-Sher on August 5.

The autumn migration was not considerable during the time we spent at Bamian. In the highlying Darra-i-Shahidan I saw a few martins, presumably Sand Martins, on September 28, at Bamian five birds on October 7, and a single bird on the 10th.

(203). *Hirundo rupestris* Scopoli – Crag Martin

Gusalek, Nuristan

22. iii. 48. ♂ 2×2 we. 19 wi. 128

Stiewe, Nuristan

16. vi. 48. ♂ 8×5 — 17 — 127

Obeh, W Afghanistan

15. vii. 49. ♀ 5×4 — 19 — 121

Panjao, Central Afghanistan

13. vi. 49. ♂ 9×5 — 20 — 133

Bamian, Central Afghanistan,

8. ix. 49. ♂ 2×1 — 18 — 129 juv.

14. ix. 49. ♂ 1×¹/₂ — 21 — 130 juv.

o — 19 — 129 juv.

In contrast to the other migratory swallows the Crag Martin moults before it leaves the breeding area. In the female from Obeh the postnuptial moult had started with the wing feathers as early as July 15. The juvenals from September 8–14 had not started to moult.

In 1948 I observed the spring migration in the Pech Valley in Nuristan. Here, at Gusalek I saw the first bird on March 15, a few more on the 19th, and several early in the morning of the 22nd hunting over the fields in the bottom of the valley. At 10 a. m. they had all gone. I saw a few again on some of the following days until the 28th, when we moved higher up the valley to Wama, where we camped until May 5. At this last locality we did not observe the Crag Martin. At our next camp, at Pashki, it presumably bred nearby for I saw it several times between May 10 and June 6 hunting over the valley or keeping to rocky ravines where I looked in vain for its nests. We also observed it a few times in June at Stiewe. The male which I collected there had large, injected testes. – After we had crossed the Hindukush, we saw it on July 3–17 at several localities in Badakhshan at

altitudes between 2300 and 1550 m. in the valleys of Kokcha, Warduj and Sanglich.

In 1949 we saw it during the breeding season at several localities at rather high elevations, namely on both sides of Tera Kotal (2800 m.) north of Gardez on May 23; at Ghorband, Shibar Kotal, Darra-i-Shikari, and Bamian June 2–7; and at several localities between Sar-i-Chashma in upper Maidan Valley and Panjao in eastern Hazarajat on June 9–19; at Obeh at elevations between 2000 and 2800 m. on July 11–16; and at Maimana on July 27. The male which I collected at Panjao on June 13 had testes at their maximum size and protruding *vesiculae seminales*. At Maimana I found well over a dozen birds in a rocky canyon southeast of the town. The elevation was about 900 m., the lowest altitude at which it was seen.

During excursions in the Bamian area from September 7 to October 17 I saw a few to half a dozen birds on many days, presumably the breeding population of the area. In the afternoon of October 14, however, I observed for the first time a dozen birds hunting over the hotel where we lived. These may have been on migration as well as a dozen at the outlet of the Ghorband Valley on the 18th.

(205). *Hirundo rustica rustica* Linné – Common Swallow

Synonym: *Hirundo rustica afghanica* Koelz, Proc. Biol. Soc. Washington 52: 75 (1939 – Baghlan, Afghanistan)

Lower Farah Rud, Seistan, 1. iii.–16. iv. 49.

Weight 5 ad. ♂♂: 17–21 (18,2); ♀♀: 17, 18, 20

Wing 7 ♂♂: 119–125 (122,3); 6 ♀♀: 117–126 (120,3)

Kabul, E Afghanistan, 30. v. 49.

Weight ♂♂: 16, 17, 17, 17; ♀: 16

Wing ♂♂: 122, 123, 124, 128; ♀: 120

Herat, W Afghanistan

5. vii. 49. ♂ 3×2 we. 22 wi. 122

♀ 5×3 — 20 — 119

♀ 4×3 — 19 — 123

Kachari, NE Afghanistan

3. vii. 48. ♂ 3×2 — — — 123

Some of the birds from Seistan are very dark because they nested in the smoky huts. In the specimens that are not dirty from Seistan and all the other localities the colouration of the under parts varies from pure white to faint redbrown, just as in Danish breeding birds, and I therefore consider *afghanica* synonymous with nominate *rustica*.

The abdomen of at least 11 out of 16 specimens from Seistan and Herat contained from a few to numerous nematodes.

HUTTON, SWINHOE and ST. JOHN recorded the first arrivals at Kandahar on January 29 (1881), February 5 (1840), 7 (1879), and 8 (1841). We found it very numerous in the town on February 18. In Girishk, Dilaram and Farah we saw a few on February 20–23. They had, however, increased considerably when we revisited Farah on February 28 and the two other places on April 4. The first juvenals we observed flying were seen in the Tarnak Valley on May 7. When on June 24–27 we again drove from Kabul to Farah this swallow was numerous in all the cultivated areas, and the juvenals were in the majority.

Southern Afghanistan: During the first week of our stay at Baqrabad in Seistan we saw only single birds in the village and its vicinity. About March 5, however, their number increased considerably and they were from now on constantly over and in the village, where they flew unconcernedly down through the smoke holes in the top of the huts to look for nest sites on projecting bricks in the arched roofs. They seemed to be in pairs at the time of their arrival or very shortly after. A male shot on the 14th carried loam in its bill and on the 25th I saw a swallow fly with a feather for its nest. In a male shot on March 1 the testes had not yet attained a quarter of its maximum size; in two from the 14th they were injected and much enlarged; and in all four birds from the 31st they were in maximum stage. One of the females from that date would have laid within a few days. Besides these local birds I saw on March 17 numerous swallows resting in some fields 22 km. south of Salian. A party of half a hundred which we observed at 6.30 p. m. near Farah on May 2 may also have been passage migrants.

Western Afghanistan: We found it in June–July numerous at Shin Dand and in the Hari Rud Valley from Islam Qala in the west to about 60 km. west of Kwaja Chisht. At this last place we saw none. At Obeh it was common in the main valley but only once we saw a few up in the side valley at the hotel.

Northern Afghanistan: It was numerous in most of the cultivated areas all along our route from Qala Nau over Bala Murghab, Maimana, Andkhui, Mazar-i-Sharif, and Haibak to the Surkhab Valley, July 23 to August 5. In Qala Nau a pair had still not fledged young on July 23.

In Badakhshan it was also rather scarce. On our excursion in July to this province I saw it only at Kachari on the 3rd, at Faizabad 11th–12th, and in the Warduj Valley above Barak on the 13th. In all localities we recorded only one or two birds.

Eastern Afghanistan: It was a common breeding bird in Ghorband Valley, the Kabul area, Logar Valley, the Gardez area, and all along the road from Kabul to Kandahar. In the Maidan Valley it occurred up to an altitude of about 2600 m. (Sar-i-Chashma) but from there I did not see it at all between Unai Kotal and Panjao so I assume that, contrary to *Delichon urbica*, it avoids all the central highland.

On February 19–22, 1948, there were several in the broad valley north-west of Jalalabad and in the Kunar Valley. At Gusalek in the Pech Valley I saw a single one on February 27 and a few on March 15. At 8 a. m. on the 22nd numerous swallows were hunting high in the air over Digal near Gusalek, but they were too far away to be identified with certainty, most likely, however, they were *H. rustica*. After that day I saw only one single Common Swallow in Nuristan during the rest of the spring and summer, namely at Pashki on June 9. It may, therefore, breed in central Nuristan, but it is at any rate very rare there during the breeding season. When we travelled back I saw a few on August 6 in the lower Pech Valley at an altitude of about 800 m. midway between Gusalek and Chigha Sarai, and on the following days in the Kunar Valley.

I did not observe the time at which the Common Swallow leaves Afghanistan but most birds had in any case left Kabul by the beginning of September. In the autumn of 1949 I saw only very few at Bamian: on September 11 a single bird, and on the 12th three. Half a dozen swallows which flew down the valley on the 25th were presumably also of this species.

(206). *Hirundo smithii flifera* Stephens – Wire-tailed Swallow

Lashkari-Bazar, S Afghanistan

4. v. 49. ♀ 2 we. 17 wi. 120

Kabul, E Afghanistan

30. v. 49. ♂ 8×5 — 14 — 120

Chashma-i-Sher, N Afghanistan

5. vii. 49. ♂ (7×5) — 14 — 120

Kachari, Badakhshan

3. vii. 49. ♂ 5×4 — 16 — 123

In the first three specimens the crown is considerably paler than in that from Kachari. IVANOV (1940: 278) found the same difference between a series of breeding birds from Tadzhikistan and one from India. He therefore recognized *bobrinskoi* for the populations in Turkestan. VAURIE (1951, Am. Mus. Nov. 1529: 26) says, however, that in the Indian populations the colour of the crown is not uniform but varies from deep dark chestnut to pale reddish cinnamon in freshly moulted birds. Consequently he finds it

impossible to separate the populations of India, Afghanistan and Turkestan.

The Wire-tailed Swallow is very local but widely distributed in Afghanistan. On May 30, 1949, we saw 2-3 sitting on the telephone wires along the road from Kabul to the Tangighoru canyon and between June 20-23 MADSEN saw one in Kabul. In the lower parts of the Ghorband Valley, to above Siah Gird, we observed half a dozen on June 2. - At Lashkari-Bazar in southern Afghanistan it was numerous on May 4-5 and presumably on its breeding ground. They incessantly flew down the underground water canals where, I think, they had their nests. In the female which we collected the oviduct was at its maximum size and the largest follicle measured 2 mm. in diameter. - About 50 km. north of Shin Dand in western Afghanistan we saw a single bird on July 1. - In northern Afghanistan we found some along the Murghab on July 24-25 in the vicinity of Bala Murghab. There, under the arches of a bridge there were 6 nests on one of which a bird was still sitting. The nests were quite inaccessible so I could not inspect the contents of them. We saw also a few birds at Pul-i-Khumri in the Surkhab Valley on August 4 and, the next day, at Chashma-i-Sher. The male collected here had very enlarged *vesiculae seminales*. - In Badakhshan I only saw the specimen which I collected on July 3. It sat together with a Common Swallow on a twig in a thornhedge near Kachari at an altitude of 2300 m. which was the highest altitude I ever found the species.

(208). *Hirundo daurica rufula* Temminck - Red-rumped Swallow

Bala Murghab, N Afghanistan

24. vii. 49. ♂ 4×3 we. 19 wi. 119 t. fork 55

Haibak, N Afghanistan

3. viii. 49. ♀ 2×1 — 14 — 115 juv.

Darra-i-Shikari, Central Afghanistan

4. vi. 49. ♂ 7×4 — 18 — 120 58

According to VAURIE (1951, Am. Mus. Nov. 1529: 35) the birds from Gilgit (terra typica of *scullii*), eastern Afghanistan, and Baluchistan are not separable from birds from the Mediterranean countries although they average somewhat paler. He therefore synonymizes *scullii* with *rufula* (terra typica Egypt, Sicily).

The Red-rumped Swallow was observed only in northern and eastern Afghanistan. In the spring of 1948 I saw the first individuals, 3-4 birds, on March 16 at Gusalek in the Pech Valley (Nuristan). On the following days only a few appeared but on the 22nd in the morning numerous were hunting over the valley. At 10 a. m. they had all left again. The 24th and 28th we

also observed rather many but none on the intervening days. No doubt a wave of migrants passed through the valley in the last third of March. I found some uninhabited nests under projecting rocks in a cleft which certainly belonged to this swallow. When I returned to Gusalek I revisited the place on August 4 but found still no birds at these nests. – On March 29–30 we moved to Wama where EDELBERG on April 5 saw for a short time the valley swarming with the Red-rumped Swallow, while I myself did not see any before the 12th. From then until our departure on May 6 I occasionally saw a few birds. I looked for the nests but found neither old nor new ones. However, it presumably breeds in the vicinity for I saw a few individuals again when I revisited Wama on July 31. – I collected May 8 – June 14 at Pashki during which time I only saw it thrice, on May 17 several were hunting over the valley and on June 4 and 10 I saw three individuals. I therefore presume that about Pashki it is also a scarce breeding bird. – In Badakhshan I found a few at Faizabad on July 11, between this town and Barak on the 12th, and in the Warduj Valley a little above Barak on the 13th.

During the summer of 1949 I saw it in only rather few places. There were some in the Ghorband Valley on June 1, in Darra-i-Shikari on June 4 and August 7, and in the lower parts of Maidan Valley on June 19. In the male collected on June 4 in Darra-i-Shikari the testes were much enlarged and injected. – We recorded it on two localities between Qala Nau and Bala Murghab on July 24; at Andkhui on the 29th where a few were together with *H. rustica*; at Haibak on August 2–3 where a party of about 20 birds was hunting over some loam slopes; at Chasma-i-Sher on the 5th; and at several localities up through the Surkhab Valley on the 6th.

We failed to observe the autumn migration, unless some of the birds in August were already on migration. On September 5 I saw a few in the Ghorband Valley and the following day MADSEN saw a single bird at Bamian. During the rest of our stay there none appeared.

(209). *Delichon urbica urbica* (Linné) – House Martin

Shibar Kotal, Central Afghanistan

2. vi. 49. ♂ 9×6 we. 17 wi. 107

As *meridionalis* seems unseparable from typical *urbica* (VAURIE 1951, Am. Mus. Nov. 1529: 42), the breeding populations and the passage migrants of Afghanistan should be referred to nominate *urbica*.

The House Martin is rather scarce in Afghanistan during the summer and, in contrast to *Hirundo rustica*, found only at rather high altitudes. In

the spring of 1948 the first migrants arrived at Gusalek in Nuristan on March 20, when about two dozen were hunting over the valley. In the morning of the 22nd a new and larger wave of migrants appeared together with *Hirundo daurica* and *H. rupestris*. At 10 a. m. they had all passed. From then on I did not observe any in the Pech-Parun Valley until May 16 when about 20 birds were hunting over our camp at Pashki. Here I saw a few again on the 17th and the 27th, and half a dozen on the 31st. The status of these birds is uncertain, but most likely they bred in this part of Nuristan for on June 19 and 20 I saw half a dozen over Stiewe, and on July 22 a single bird in the valley which extends from Stiewe to the Weran Kotal. – In Badakhshan I saw a few on July 1–5 at some localities in the Kokcha Valley down to an altitude of about 2000 m., on the 14th–16th in the Sanglich Valley, and on the 21st in the Weran Valley.

In central Afghanistan we saw on June 2, 1949, half a dozen near a small village 12 km. west of Shibar Kotal. Here the road runs through a very narrow valley with vertical rock walls in which there were plenty of possibilities for the birds to hide their nests, which we could not find during the short time we stayed. In the male which we collected the testes were at, or very near, the maximum size. In a badly damaged female the oviduct was much enlarged and the ovary contained only rather small follicles and some ochreous areas; she had presumably just passed the laying stage. – We found also a few at Bamian on June 5, and in the Ghorband Valley on the 7th. – On our excursion from Kabul to eastern Hazarajat we did not record it until we had passed the Unai Kotal and crossed the Helmand river, then we saw on June 11 a few at 3–4 localities on our way to Panjao, where we also observed some between June 12 and 16. In western Hazarajat we only recorded a single bird between Kwaja Chisht and Obeh on July 20. – In northern Afghanistan we saw 3–4 individuals on July 24 in the canyon between Qala Nau and Bala Murghab where also *Apus affinis* occurred.

The early spring migration of 1949 we observed in southern Afghanistan, but only few birds passed during the time we spent there. We saw on February 18 two in Kandahar, on the 22nd a few in Farah, on March 17 two and one 25 and 50 km. south of Salian, on the 28th two over Faizabad, on April 4 a single one near Farah, and on the 12th in the morning a party of 30–40 individuals at Faizabad.

(211). *Anthus campestris* – Tawny Pipit

- a. *Anthus campestris campestris* (Linné)
- b. *Anthus campestris griseus* Nicoll

a. Bamian, 6. ix.–11. x. 49.

Weight	♂♂ 8 subad.: 20–25 (23,4); ♀♀ ad.: 19, 23 ¹ / ₂ ; subad.: 19 ¹ / ₂ , 20, 21
Wing	♂♂ 8 subad.: 88–92 (90,0); ♀♀ ad.: 84, 86; subad.: 80, 83, 83
Tail	♂♂ 8 subad.: 67–73 (69,1); ♀♀ ad.: 64, 66; subad.: 61, 62, 62

b. Faizabad, Badakhshan

11. vii. 48. ♀ we. 19 wi. 86 tl. 65

Faizabad, Seistan

22. iii. 49. ♂ 4×3 — — 93 — 66

Bamian, Central Afghanistan

6. ix. 49. ♂ 2×1 — 22 — 88 — 68

8. ix. 49. ♂ 1×1 — 25 — 95 — 74

The specimens in series (a) are migrants in fresh plumage. They are not separable from European birds in the same stage of plumage. All the males, and two unsexed birds, which are not included in the list, are birds of the year with several juvenal wing-coverts. Two of the five females are adults, three subadults.

The four birds in series (b) differ strikingly from the other specimens by their much more grey upper parts; they belong undoubtedly to *griseus* which is the breeding bird in eastern Iran, Afghanistan and Turkestan.

The Tawny Pipit is a scarce breeding bird in Afghanistan. I collected on July 11, 1948, an adult female at Faizabad in Badakhshan, and two *Anthus sp.* which I saw on the 7th between Iskan and Jurm in the Kokcha Valley presumably belonged to this species. It most likely breeds at Bamian for the male collected there on September 6 was moulting the primaries (the 2nd to 5th outer were old, the rest new, growing), and was therefore, undoubtedly, still on its breeding grounds. The bird collected in Seistan may have been a migrant. Only this and a second one were seen there.

When we arrived at Bamian on September 6, 1949, some migration was going on, and it continued throughout the month, but rather few birds rested in the valley, for I never saw more than half a dozen on a single excursion and on several days none. The last was seen on October 11.

(212). *Anthus similis decaptus* Meinertzhagen – Brown Rock Pipit

Faizabad, Seistan

20. iii. 49. ♂ 8×5 we. 31 wi. 100 tl. 83

I observed only the specimen above which was collected in the fields around Faizabad. Presumably, it was a migrant. WARDLAW-RAMSAY (1880: 61) found the species breeding on the slopes of Safed Koh at the east border of Afghanistan and ST. JOHN (1889: 167) says it is a summer visitor at Kandahar. WHISTLER (1945: 285) examined two specimens taken in

these localities, and he could not separate them from Baluch specimens (*decaptus*). MEINERTZHAGEN (1938: 520) on May 31 collected a male near Jalalabad which he identified as *jerdoni*. This subspecies inhabits western Himalaya, east to Sikkim.

(213). *Anthus trivialis* – Tree Pipit

a. *Anthus trivialis sibiricus* Sushkin

b. *Anthus trivialis schlüteri* Kleinschmidt

a. Bamian, Central Afghanistan, 6. ix.–11. x. 49.

Weight 10 ♂♂: 20–25 (23,4); 7 ♀♀: 17–21 (19,9)

Wing 10 ♂♂: 87–92 (88,6); 7 ♀♀: 83–87 (83,9)

Culmen from nares 10 ♂♂: 8,5–9 (8,9); 7 ♀♀: 8–9 (8,4)

Wama, Nuristan

9. iv. 48. ♂ 2×2 we. 22 wi. 84

12. iv. 48. ♂ — — 20 — 84

18. iv. 48. ♂ 4×2 — 19 — 86

1. v. 48. ♀ 6×3 — 22 — 85

♀ 6×3 — 20 — 82

Pashki, Nuristan

12. v. 48. ♀ 7×4 — — 83

b. Bamian, Central Afghanistan

3. x. 49. o — 18 — 83 cn. 8½

6. x. 49. ♂ 1×½ — 21 — 88 — 8

♀ — 25 — 87 — 8½

10. x. 49. ♀ 3×1½ — 23 — 86 — 8

14. x. 49. ♀ 3×2½ — 23 — 85 — 9

Panjao, Central Afghanistan

10. vi. 49. ♀ 6×4 — 24 — 83 — 9½

The specimens in series (a) differ distinctly from Danish birds in the same stage of plumage by more grey, not so olive, edges to the feathers of the upper parts; by narrower and less pronounced streaks on the upper parts; and by a lighter brownish tinge of breast and flanks. In these respects the Afghan migrants fully agree with a large series of birds from western Siberia in JOHANSEN'S collection. I think, therefore, that *sibiricus* is a rather characteristic subspecies which should be recognized nomenclatorially.

Still more grey above is the series (b) which has practically no brownish tinge on the breast, where, on the other hand, the streaks are very brown. These specimens are undoubtedly representatives of the Turkestan–Tian Shan populations which are usually named *microrhynchus* Severtzov, 1883, but this name is preoccupied by *Anthus arboreus microrhynchus* C. L.

Brehm, 1856, a synonym of nominate *trivialis*. An available name for these southern populations is *schlüteri* Kleinschmidt, *Falco* 16: 16 (1920—Naryn, Tian Shan). Cf. VAURIE, 1954, *Am. Mus. Nov.* 1672: 10. My specimens in series (b) might of course be presumed to be extreme variants of the greyish *sibiricus*. The description given above, however, does not confirm this, and it must be emphasized that all these grey specimens were collected in October, whereas 17 specimens of *sibiricus* were taken in September. This fact agrees with the common rule that the southern populations are later migrants than are the northern.

The female collected on June 10 at Panjao in Hazarajat agrees best with my series of *schlüteri*, but it is a little darker above, and the bill seems to be a little longer and broader at the base. Since these characters remind of the description of *haringtoni* (type locality Hazara) I asked Dr. VAURIE to compare it with the material in the American Museum. He kindly informed me that no topotypical or any material of *haringtoni* is available, but that my specimen does not appear to be separable from Russian Turkestan *schlüteri*. The status of *haringtoni* in Afghanistan is uncertain. MEINERTZHAGEN (1938: 520) on April 11 collected a female at Kabul and WHISTLER (1945: 284) refers one of GRIFFITH's specimens to this subspecies. It was presumably collected on February 25 at Pashat in the Kunar Valley.

The only Tree Pipit I ever saw in Afghanistan during the breeding season was the female from Panjao. It was collected in a willow scrub. The ovary contained merely small follicles, the oviduct was somewhat enlarged and injected, however far from the maximum size. It might very well have bred.

In the spring of 1948 some migration took place through the Pech-Parun Valley in Nuristan, where on several days between April 9 and May 1 I saw single birds or small parties of half a dozen birds in the vicinity of Wama. At Pashki (May 8—June 14) I made no observations except of the female from May 12 which presumably was a late migrant.

When, on September 6, 1949, we arrived at Bamian a heavy migration of Tree Pipits was going on for we found resting birds all over, both in the main valley as well as in all the visited side valleys, at least up to an altitude of 3000 m. A few days later their number had decreased considerably but some were noticed every day all the time we remained there. In the first week of October the number increased slightly again which coincided with the occurrence of more grey birds, *schlüteri* (see above).

(218). *Motacilla flava* – Yellow Wagtail

- a. *Motacilla flava melanogrisea* (Homeyer) – Black-headed Wagtail
 b. *Motacilla flava beema* Sykes – Blue-headed Wagtail
 c. *Motacilla flava thunbergi* Billberg – Grey-headed Wagtail

a. Estuary of Farah Rud, Seistan

28. iii. 49. ♂ 4×2 we. 16 wi. 80

Herat, W Afghanistan

2. vii. 49. ♂ 7×5 — 17 — 80

5. vii. 49. ♂ 7×5 — 17 — 80

Chashma-i-Sher, Danaghor Plains, N Afghanistan

5. viii. 49. ♂ 2×1½ — 18 — —

♂ ? — 18 — 82

b. Faizabad, Seistan

8. iv. 49. ♀ 6×3 — 19 — 77 tl. 67

Bamian, Central Afghanistan, 6.–27. ix. 49.

Weight ♂♂ 6 ad.: 16–18 (16,8); 5 juv.: 16–19 (17,4); sex ? : 16, 16; ♀♀ 12 juv.: 14½–18 (16,0)

Wing ♂♂ 6 ad.: 79–82 (81,0); 5 juv.: 78–84 (81,0); sex ? : 76, 78; ♀♀ 12 juv.: 73–82 (77,4)

Tail ♂♂ 5 ad.: 64–71 (68,0); 5 juv.: 64–72 (69,0); sex ? : 67; ♀♀ 12 juv.: 59–70 (66,7)

c. Bamian, Central Afghanistan

23. ix. 49. ♂ 1½×1 we. 18 wi. 84 tl. 72

The black-headed series (a) consists of four breeding birds in badly worn plumage and a migrant. None of these specimens has a supercilium. In one of the specimens from Herat the chin is white while it is yellow in the other four. The postnuptial moult has started in the two specimens collected on August 5. As this sample is very small and in a bad feather condition, and I have had very little material for comparison, I refer it to *melanogrisea* which is the name usually used for the population of Afghanistan. As to the validity of this subspecies see VAURIE 1957, Am. Mus. Nov. 1832: 5.

The birds in series (b) were all migrants. The six adult males collected in September at Bamian have light ear coverts and compare very well with specimens of *beema* from its breeding range in western Siberia. Together with these adult males I collected several birds in varying stages of juvenal and first winter plumage. As I am not able to identify them as to subspecies I have listed them all under *beema*.

A single large male with dark ear coverts and without supercilium collected on September 23 at Bamian was the only *thunbergi* recorded, but there may have been a few among the numerous *beema* observed at Bamian.

During the breeding season I found the Black-headed Wagtail at only two localities. In the first week of July there were a few in some meadows

along the Hari Rud at Herat and on August 5 there were several in swampy areas at Chashma-i-Sher, Danaghori Plains.

During our stay in southwestern Afghanistan the spring migration was very weak. The first black-headed was observed on March 11 at Baqrabad, the next two on the 17th, and two again on the 28th in the estuary of Farah Rud. On April 4–6 single black-headed were observed at Girishk, Dilaram and Farah, and on the 12th two at Faizabad. The first party of not-black-headed was seen on April 7 south of Farah, a few again the next day, and a single on the 16th.

On March 27, 1948, I saw a few yellow wagtails along the Pech river at Gusalek, Nuristan. These were probably *M. flava*, and they were the only ones recorded during all the spring in Nuristan.

When we arrived at Bamian on September 6, 1949, the migration of *M. flava beema* was going on, and until the last week of the month flocks of up to 100–200 birds occurred in the fields. After that time they decreased, and on October 3 the last ones were seen. *M. flava beema* was one of the most numerous migrants observed at Bamian.

(219). *Motacilla citreola calcarata* (Hodgson) –
Yellow-headed Wagtail

Miyandeh, Badakhshan

1. vii. 48. ♂ 8×6 we. 19 wi. 82 tl. 72

Tilli, Badakhshan

18. vii. 48. ♂ 8×6 — 15 — 80 — 68
♀ — 18 — 78 — 66

Darra-i-Shikari, Central Afghanistan

4. vi. 49. ♂ 10×7 — 19 — 87 — 77
♂ 8×6 — 18 — 83 — 75

Panjao, Central Afghanistan

13. vi. 49. ♂ 10×5 — 18 — 84 — 76
14. vi. 49. ♀ laying — 23 — 81 — 70

Herat, W Afghanistan

5. vii. 49. ♂ 6×4 — 18 — 83 — (70)

Bamian, Central Afghanistan

19. ix. 49. ♂ 1×¹/₂ — 16 — 80 — 65
7. ix. 49. o — 18 — 83 — 71
18. ix. 49. o — 19 — 83 — 74
♀ 4×2¹/₂ — 16 — 77 — 69
19. ix. 49. ♀ 3×3 — 15 — 78 — 65

Four of the six breeding males are typical *calcarata* with quite black upper parts, but in the two from Tilli the back is grey with intermixed

black feathers. In nominate *citreola* JOHANSEN (1944, Jour. f. Orn. **92**: 162) found a similar great variation in the colour of the upper parts.

The specimens collected during the autumn migration at Bamian all seem to be juvenals or subadults. I am not able to determine to which subspecies they belong. WHISTLER (1945: 284) refers the examined migrants to *verae*, while MEINERTZHAGEN refers his three males from the spring migration to nominate *citreola*.

During July 1948 I found the Yellow-headed Wagtail in several localities between elevations of 2500 and 3500 m. in the Weran, Kokcha and Sanglich valleys in Badakhshan.

On June 2 and 3, 1949, I saw a few in Darra-i-Shikari and at Doab. On the 6th one was seen at an elevation of about 3100 m. in one of the high situated dry valleys west of Bamian. It breeds also in the eastern Hazarajat, where in the middle of June I found a few between the Helmand River and Panjao, and in western Afghanistan where I saw some on June 28–30 around Shin Dand, and on July 2–5 at Herat.

It lived in the rather dry, grass-clad areas along the rivers or in fields around the villages. Males collected during the first half of June had injected testes at their maximum size and much enlarged *vesiculae seminales*. A female from June 14 was laying. Fledged young were observed from the last days of June and in July.

The only observation of spring migration is of three birds on May 9, 1949, on a small island in Ab-i-Istada, eastern Afghanistan. During the autumn of the same year a few were seen and collected between September 7 and 19 at Bamian.

(220). *Motacilla cinerea cinerea* Tunstall – Grey Wagtail

Gusalek, Nuristan

22. iii. 48.	♂	3×2	we. 16	wi. 80	tl. 88
16. iii. 48.	♀	6×4	— 15	— 84	— 93
22. iii. 48.	♀	5×3	— 14	— 79	— 90

Wama, Nuristan

9. iv. 48.	♂	7×5	— 14	— 82	— 95
19. iv. 48.	♂	2×2	— 15	— 80	— 89
30. iv. 48.	♂	2×3	— 15	— 82	—
	♀	5×4	— 16	— 81	— 92

Pashki, Nuristan

14. v. 48.	♂	6×4	— 15	— 81	— 87
	♀	6×3	— 15	— 78	— 87

Stiewe, Nuristan

17. vi. 48.	♂	7×5	— 16	— 80	— 83
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Panjao, Central Afghanistan

11. vi. 49.	♂	7×4	we.16	wi. 84	tl. 87
16. vi. 49.	♀	7×4	— 15	— 82	— 83
	♀	2× $\frac{1}{2}$	— 15	— —	— — juv.

According to VAURIE (1957, Am. Mus. Nov. **1832**: 10) the overlap between tail measurements of nominate *cinerea* (England) and those of toponymical *caspica* (northern Iran) is virtually complete; even the birds of Transbaicalia (*melanope*) overlap too much to be separated from *cinerea*. The clinal decrease from west to east in the length of the tail is, however, rather pronounced in the series above, for VAURIE gives a tail length of 92–102 in 19 males from England compared with 83–95 in my six Afghan males.

During the breeding season I found it in eastern, northeastern, central and western Afghanistan. On March 12, 1948, I saw the first Grey Wagtail at Gusalek, Nuristan, where a few single birds and pairs occurred during the rest of the month. Their status was uncertain, but they undoubtedly bred there for a few were seen when in the first week of August we again camped in this place. From April to June I found a few single birds and pairs higher up in the Pech-Parun Valley at Wama, Pashki and Stiewe (2600 m.). They occurred both along the main river and the small streams in the side valleys up to an elevation of 3500–3600 m. — On the northern side of the Hindukush I saw it once only, namely on July 15, 1948, at Sanglich (3000 m.), just north of the main mountain range. — On May 25, 1949, I saw one north of the Saroti Kotal in the province of Gardez.

It was recorded in central Afghanistan on June 2 in the valley west of Shibar Kotal and in Darra-i-Shikari, and in the middle of the month in some localities between Unaï Kotal and Panjao; in western Afghanistan in the middle of July at Obek and Kwaja Chisht in the Hari Rud Valley east of Herat.

In a male collected on April 9 the testes were near their maximum size, but in all four females collected in Nuristan between March 16 and May 14 the sex organs were very small. The breeding season must, however, start in May, for on June 16 I collected a fledged female. At the same time an adult bird was seen carrying nest material.

Very little migration was noticed. Some of the birds in the Pech-Parun Valley were presumably migrants for although I collected a male on April 9 in which the testes measured 7×5, they measured only 2×2 in another male from the 19th, and this last male was moreover extremely fat. During the observations on the autumn migration, 1949, at Bamian I saw only a single bird, it was on September 13 at an elevation of 3100 m.

(221). *Motacilla alba* – White Wagtaila. *Motacilla alba personata* Gouldb. *Motacilla alba dukhunensis* Sykes

a. Chigha Sarai, Nuristan

23. ii. 48. o (♂) we. — wi. 95 tl. 93

Gusalek, Nuristan

12. iii. 48. ♂ 3×2 — 24 — 95 — 94

7. iii. 48. ♀ 7×4 — 23 — 86 — 90

8. iii. 48. ♀ 4×2 — 22 — 86 — 87

12. iii. 48. ♀ 5×3 — 22 — 87 — 85

Pashki, Nuristan

14. v. 48. ♂ 9×6 — 24 — 93 — 92

22. v. 48. ♂ 10×8 — 24 — 93 — 93

♂ 10×6 — 21 — 93 — 87

25. v. 48. ♂ 10×6 — 24 — 94 — 91

1. vi. 48. ♂ 10×7 — 25 — 93 — 93

25. v. 48. ♀ laying — 23 — 89 — 90

Stiewe, Nuristan

19. vi. 48. ♂ 9×6 — 23 — 92 — 89

23. vi. 48. ♀ laying — 24 — 87 — 84

♀ laying — 23 — 87 — 85

Darra-i-Shikari, Central Afghanistan

4. vi. 49. ♂ 12×8 — 24 — 95 — 91

♂ 10×8 — 26 — 96 — 100

♀ laying — 24 — 91 — 87

Bamian, Central Afghanistan

16. ix. 49. ♂ 2×2 — 28 — 96 — 92

21. ix. 49. ♂ 2×1½ — 29 — 95 — 95

6. ix. 49. ♀ 3×2 — 25 — 88 — 83 subadult

14. ix. 49. ♀ 2×1½ — 26 — 89 — 85 subadult

Panjao, Central Afghanistan

12. vi. 49. ♂ 10×10 — 25 — 96 — 92

♂ 9×7 — 23 — 95 — 88

13. vi. 49. ♂ 9×5 — 26 — 93 — 92

15. vi. 49. ♂ 7×5 — 25 — 93 — 96

12. vi. 49. ♀ laying — 28 — 91 — 88

Shin Dand, W Afghanistan

29. vi. 49. ♀ laying — 25 — 91 — —

Herat, W Afghanistan

2. vii. 49. ♀ 5×4 — 26 — 91 — —

♀ 8×4 — 27 — 91 — —

Tirpul, W Afghanistan

9. vii. 49. ♀ 4×3 — 22 — 89 — —

b. Lower Farah Rud, Seistan, 9. iii.–16. iv. 49

Weight	4 ♂♂: 23–27 (24,5); 4 ♀♀: 19–25 (22,1)
Wing	6 ♂♂: 87–91 (89,3); 4 ♀♀: 85–87 (86,0)
Tail	6 ♂♂: 82–87 (85,3); 4 ♀♀: 81–85 (83,8)

Bamian, Central Afghanistan, 17. ix.–7. x. 49.

Weight	♂♂ 6 ad.: 19–25,5 (22,3); 10 subad.: 20,5–24 (22,1); ♂♂ ad.: 20, 23; 4 subad.: 20–22 (20,5)
Wing	♂♂ 6 ad.: 90–96 (91,7); 10 subad.: 86–93 (89,4); ♀♀ ad.: 87, 89; 5 subad.: 84–88 (85,6)
Tail	♂♂ 6 ad.: 82–93 (86,8); 10 subad.: 82–94 (87,1); ♀♀ ad.: 85, 88; 4 subad.: 80–85 (82,8)

The specimens of series (a) are all typical *personata*, except the two males collected in Nuristan on March 12 and May 25. In these the black colour of the upper parts extends further caudally, including a great part of the back, and the grey colour of the remaining upper parts is much darker grey than in other specimens of *personata*. On March 11 and 27 I observed individuals, one on each occasion, which were very dark on the upper parts, in one case perhaps as dark as *alboides*. Unfortunately, they were both taken by the river. There can be no doubt that these two specimens represent intermediates between *personata* and *alboides*. These last mentioned subspecies breed from Kashmir through Tibet to Yunnan and northern Tonkin. Both *personata* and *alboides* seem to have been collected during the breeding season in Gilgit, just at the east border of Nuristan, but nothing is known about an interbreeding in this range (PALUDAN 1932, Jour. f. Orn. 80: 409, map p. 393). All the specimens collected between the end of February and the beginning of May are in the nuptial plumage, but in a male and a female from March 12 some head feathers are still growing. In those from the beginning of July the plumage is very badly worn.

The spring migrants of series (b) collected at the lower Farah Rud in Seistan, are typical *dukhunensis* with much paler grey upper parts than in nominate *alba*. In all of them, except one, there is also more white on the greater and median wing coverts than in *alba*.

The Masked Wagtail (*personata*) is widely distributed as a breeding bird in Afghanistan. On February 19–22 I saw several along the Kabul River near Jalalabad, and in the Kunar Valley. On the 29th the first occurred at Gusalek in the Pech Valley, Nuristan, and it was then regularly seen along the river until March 29, when we left the locality. During the first week I saw single birds only or a few together. From March 7 it occurred in small parties of about a dozen individuals, and on the 26 and 27 two parties of up to half a hundred were seen. There can be no doubt that a migration went up through the valley in this month. Some remained, however, in

this lower part of the valley to breed for when we returned to Gusalek in the first week of August we saw some adults and young. – During the first half of April I observed a few at Wama, our next camp up the Pech Valley, but from then until we left on May 5 not a single one was seen. It is possible, therefore, that it does not breed in this part of Nuristan with its very narrow valleys. Higher up, where the main valley again broadens, it was rather numerous at Pashki and, especially, at Stiewe (2600 m.).

Outside Nuristan I found it during the breeding season in Badakhshan at several localities below 3500 m. in the Weran, Kokcha, Warduj, and Sanglich valleys during July, 1948; in central Afghanistan in the Ghorband Valley and Darra-i-Shikari during the first week of June, 1949, and between Farakulum and Panjao in the middle of the month; in eastern Afghanistan at Usman Khel east of Gardez on May 25, and at Sar-i-Chashma in the Maidan Valley in June; in western Afghanistan at Shin Dand and in the Hari Rud Valley from Tirpul in the west to Kwaja Chisht in the east between the end of June and the middle of July, 1949; and finally in northern Afghanistan at Qala Nau, Maimana, Tashkurghan, Haibak, and in the Surkab Valley between Pul-i-Khumri and Doab during the last week of July and the first week of August, 1949.

It is supposed to be only a winter visitor and passage migrant in southern Afghanistan. As late as on May 6 and 7, 1949, however, I saw single birds at Girishk which seem to be a little late for migrants. It was observed there also on April 4.

To judge from the birds collected, the breeding season starts in May. In both males and females collected in February and March the sex organs were small. In the males collected from the middle of May to the middle of June the gonads were at their maximum size, and the *vesiculae seminales* were much enlarged. All five females collected between May 25 and June 29 were in laying condition. Young were not observed before the first week of July (1948 and 1949).

Only few migrants of *personata* were observed in southern and southwestern parts of the country: On February 21 and 22, 1949, single birds at Dilaram and Farah; on the 27th one at Baqrabad, Lower Farah Rud, the only one identified in Seistan; on April 5 several along the river at Dilaram; and on April 6 and 29 a few at Farah.

When on September 5, 1949, I passed through the Ghorband Valley and further on to Bamian I saw a few *personata*, and in this last mentioned locality several family parties were seen, especially along the small streams in the side-valleys where they occurred until about the middle of the month. It was my impression that these birds belonged to the breeding

population. After the middle of September the migration of *dukhunensis* began, and it was no longer possible to follow the population of *personata*. The last specimen was collected on the 21st, all the later specimens were *dukhunensis*.

The subspecies *dukhunensis* is a passage migrant and, in the southern parts of the country, a winter visitor. All the migrants which in the spring of 1948 passed up through the Pech Valley in Nuristan were *personata*. On March 22, however, I saw in a party of a dozen *personata* one individual in which the sides of the head and neck were white. It may have been a *dukhunensis*, or it may also have been a *personata* with a delayed pre-nuptial moult.

A slight spring migration of *dukhunensis* was observed in 1949 at the Lower Farah Rud in Seistan. The first few, which may have been of this subspecies, appeared on March 3, the next (identified) were seen on the 9th, and from then on a few were observed on most days during the rest of the month. In April single birds were seen on the 8th and 16th.

In the autumn of 1949 the first few *dukhunensis* were observed at Bamian on September 17 and the following days. On the 21st, just after sunset, I observed a very restless flock which counted at least one hundred individuals. On September 30 and on October 7 large flocks of 100 and more than 200 individuals were again observed. The intervening days and during the rest of our stay until October 15th smaller parties were seen in the fields on several occasions.

(222). *Pericrocotus brevirostris brevirostris* (Vigors) –
Short-billed Minivet

Wama, Nuristan

4. iv. 48.	♂	8×4	we. 18	wi. 94	tl. 109
	♀	6×4	— 17	— 91	— 109
3. v. 48.	♀	3	— 17	— 92	— 106

Pashki, Nuristan

10. v. 48.	♂	9×5	— —	— 90	— 102
23. v. 48.	♂	12×6	— 17	— 93	— 107
26. v. 48.	♀	8×4	— 18	— 90	— 106

I have not compared the specimens with material from India.

The Short-billed Minivet is recorded only from the wooded parts of eastern Afghanistan. I found it to be a scarce but widely distributed bird in the oak and the coniferous forests up to an altitude of 2600 m. at Wama and Pashki in the Pech-Parun Valley, Nuristan. It seems to be a summer visitor for I never saw it during February and March in the oak forests at

Gusalek. The first few birds were observed on April 3 at Wama after which date pairs and small parties were seen on several occasions.

The testes were already rather large in the birds collected in the beginning of April. The maximum size (10×6 and 12×6), however, was reached by two males from May 17th and 23rd. The female from May 3 seemed to stay before the laying period, that from the 26th to have passed it.

(224). *Pycnonotus leucotis leucotis* (Gould) – White-eared Bulbul

Synonym: *Molpastes leucotis farahensis* Koelz, Proc. Biol. Soc. Washington 52: 64 (1939 – Farah, SW Afghanistan).

Farah, SW Afghanistan

22. ii. 49.	♂	$3 \times 1\frac{1}{2}$	we. —	wi. 95	tl. 84
	♂	—	— —	91	— 80
2. iv. 49.	♂	10×5	— 31	— 93	— 80
3. iv. 49.	♂	5×3	— —	— 92	— 82
2. iv. 49.	♀	4×4	— 30	— 89	— 78

The type and paratypes of *farahensis* were in very fresh plumage. My specimens collected in the type locality in the spring do not differ from specimens of *leucotis* in similar plumage, and they seem not to have a longer tail for two males of *leucotis* have a tail of 76 and 81, and an unsexed 80, while five males collected by SARUDNY in Iranian Baluchistan measure: 71, 75, 78, 78, and 80.

The White-eared Bulbul is a resident in southern Afghanistan where on February 18, 1949, I saw a single one in Kandahar, and a few days later some at Farah where it was seen several times later in the month as well as in April and June. In the first week of July MADSEN saw it twice in the hotel garden at Herat.

(225). *Pycnonotus leucogenys* (Gray) – White-cheeked Bulbul

Synonym: *Molpastes leucogenys picru* Koelz, Contrib. Inst. Reg. Explor. 1: 11 (1954 – Laghman, E Afghanistan)

Wama, Nuristan

12. iv. 48.	♂	3×2	we. 31	wi. 95	tl. 86
8. iv. 48.	♀	5×3	— 32	— 88	— 82

These two specimens fully agree with a male and a female collected during the first week of May in Kashmir (British Museum). KOELZ collected on May 25–26 a series in Laghman, southwest of Nuristan, which he together with the population of Kashmir and Punjab separated under the name of *picru*. VAURIE (1958, Am. Mus. Nov. 1869: 18) has examined the material in the American Museum and found that the species increases

somewhat in size as its populations range farther west, but the geographical variation is clinal and slight, and there are no differences in colouration. VAURIE, therefore, thinks it best not to recognize any subspecies.

The form "*humii*" has been much discussed. VAURIE has recently stated (l. c.) that he considers it to be a constant form of *leucotis* though he warned that he had seen only one specimen. Mr. R. W. SIMS in the British Museum has had the kindness to lend me four specimens of *humii*, namely two males from Bannu and two females from Kohat in the NWF-Provinces. The specimens show varying degrees of intergradation between *leucotis* and *leucogenys*; two come nearest to *leucotis*, two to *leucogenys*. Therefore, I think, "*humii*" must be considered to represent intermediate specimens between *leucotis* and *leucogenys*, and not a true geographical subspecies. The two specimens from Bannu were collected by MAGRATH who, on the label of the *leucotis*-like male has written: "Feeding in cabbage patch among *M. leucotis*. Mistook it for *M. Humii*" (February 2), and on that of the *leucogenys*-like male: "Consorts with *M. leucotis* and is difficult to distinguish from same. Habit precisely similar" (November 20). On the label of the *leucotis*-like female from Kohat WHITEHEAD has written: "Shot whilst building nest" (April 5). In spite of the intermediates it may be most convenient to consider the two forms as separate species owing to the considerable morphological differences.

Through the kindness of Colonel MEINERTZHAGEN I have had the opportunity to examine the male of "*humii*" which he collected on May 31 at Jalalabad (Ibis 1938: 675). Its plumage is much worn, but there can be no doubt that it is very close to, if not identical with true *leucogenys*. The feathers of the crown are greatly elongated, narrow, and brown, and there is a distinct white superciliary streak. My only obstacle to call it a typical *leucogenys* is a comparatively short bill, which, however, may be owing to individual variation.

We saw a few single birds or pairs of the White-cheeked Bulbul on April 4, 8, and 12, 1948, at Wama in the Pech Valley, Nuristan. We did not leave Wama until May 6, but no further observations were made there or anywhere else in Nuristan, so the birds seen may at any rate have been migrants or the species is a very scarce breeding bird in the province.

(226). *Lanius collurio* – Red-backed Shrike

- a. *Lanius collurio phoenicuroides* (Schalow) – Rufous Shrike
- b. *Lanius collurio isabellina* Hemprich & Ehrenberg – Isabelline Shrike

a. Faizabad, Seistan

12. iv. 49. ♂ 9×5 we. 24 wi. 92 tl. 80

Farah, SW Afghanistan

30. iv. 49. ♀ 6×4 we. 25 wi. 92 tl. 73

Tirpul, W Afghanistan

9. vii. 49. ♂ 1×1½ — 26 — 96 — 82 juv.

Obesh, W Afghanistan

11. vii. 49. ♂ 3×2 — 29 — 91 — 81

15. vii. 49. ♂ 1×1 — 29 — 94 — 80

13. vii. 49. ♀ 5×3 — 28 — 92 — 79

♀ — 28 — 93 — 78 juv.

o — 29 — 91 — — juv.

Panjao, Central Afghanistan

14. vi. 49. ♂ 10×5 — 29 — 91 — 81

Kachari, Badakhshan

3. vii. 48. ♀ — 25 — 93 — 78

Bamian, Central Afghanistan

23. ix. 49. ♂ 1×1½ — 28 — 94 — 84 subad.

12. ix. 49. ♀ 3×3 — 27 — 93 — 76

Darra-i-Shikari, Central Afghanistan

16. ix. 49. ♂ 1×1½ — 28 — 97 — 78 subad.

b. Baqrabad and Faizabad, Seistan, 28. ii.—29. iii. 49

Weight ♂♂: 28, 31, 33; ♀♀: 29, 32

Wing 9 ♂♂: 89–94 (91,0); ♀♀: 86, 90, 93, 95

Tail 9 ♂♂: 76–84 (79,2); ♀♀: 70, 77, 80, 81

Gusalek, Nuristan

26. iii. 48. ♀ 6×3 we. 27 wi. 88 tl. 77

Bamian, Central Afghanistan, 14. ix.—14. x. 49.

Weight 6 subadults: 22–28 (25,0)

Wing 6 subadults: 85–92 (88,8)

Tail 6 subadults: 71–77 (73,8)

All adults and juvenals collected in July were moulting.

The representatives of the Red-backed Shrike, which I collected in Afghanistan, are easily divided into two groups: a (*phoenicuroides*) and b (*isabellina*). The specimens of the latter group have no colour contrast between crown and mantle, their upper parts are paler and more greyish, and their under parts, especially the flanks, have a pronounced brown tone. In one male of this group, collected on the first of March, the lores are black from the bill to the eye, while in all the other specimens there is only a black patch before the eye. In all other respects this male is identical with the other specimens, also regarding the wing speculum which is small or missing in this group.

The subspecies breeding in Afghanistan is *phoenicuroides* which I found at several localities during the breeding season. In the Hari Rud Valley in western Afghanistan I collected on July 9, 1949, a juvenal in the tamarisk

scrub at Tirpul. In the middle of July it was rather numerous up to an elevation of 2400 m. in the side valley at Obeh, and many young were seen here. At Kwaja Chisht a single bird observed on the 19th. – In central Afghanistan I saw, on June 14, two individuals in a willow scrub along the river at Panjao. The male collected had testes near their maximum size and slightly enlarged *vesiculae seminales* – In Badakhshan I found it only at Kachari (2300 m.) in the Kokcha Valley where the female collected on July 3 had nearly fledged young.

During all the spring and summer of 1948 in Nuristan I saw only a single *L. collurio*, namely a migrating *isabellina* on March 26 at Gusalek in the Pech-Parun Valley.

When we arrived at the Lower Farah Rud in Seistan at the end of February 1949 we found a few *isabellina* in the sparse scrub around the fields and along the river. About the middle of March their number decreased, and after the 29th none was seen. On April 12 we collected a *phoenicuroides*, the only one identified with certainty in this region.

In the autumn of 1949 at Bamian we saw a few or single *L. collurio* on many days between September 6 and October 14, but we never observed any concentration of migrants. As to the occurrence of the two subspecies I have only the information obtained from the specimens in the list. All the birds collected were subadults.

(227). *Lanius vittatus nargianus* Vaurie – Bay-backed Shrike

Ghorband Valley, Central Afghanistan

1. vi. 49. ♂ 8×4 we. 26 wi. 90 tl. 89

Because of its paler, brighter, not very deep chestnut mantle, Dr. VAURIE recently (1954, Am. Mus. Nov. 1752: 10) separated the populations of Persian Baluchistan (type locality), Transcaspia and Afghanistan under the name of *nargianus* from that of India.

I found the Bay-backed Shrike only in the Ghorband Valley where on June 1 I saw the specimen collected and a further shrike which presumably also belonged to this species.

(228). *Lanius senator niloticus* Bonaparte – Woodchat Shrike

Estuary of Farah Rud, Seistan

4. iii. 49. ♂ 2½×1 wi. 102 subad.

The taxidermist HANS MADSEN collected the specimen above in the tamarisk scrub at the estuary of Farah Rud. It is the first record for Afghanistan and the only one we ever saw. The status is uncertain, but since SARUDNY (1911: 222) lists it as a breeding bird of Persian Baluchistan it may also breed in Seistan.

(229). *Lanius schach erythronotus* (Vigors) – Rufous-backed Shrike

Farah, SW Afghanistan

27. iv.	49.	♂	6×5	we. 38	wi. 92	tl. 103
1. v.	49.	♀	7×4	— 33	— 89	— 101

Herat, W Afghanistan

5. vii.	49.	♀	8×3	— 41	— 91	— 105
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East of Kabul, E Afghanistan

30. v.	49.	♂	10×5	— 37	— 95	— 112
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Gusalek, Nuristan

5. viii.	49.	♂	3×2	— —	— 94	— (106)
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Pashki, Nuristan

12. v.	48.	♂	8×5	— 41	— 94	— —
13. v.	48.	♀	7×4	— 36	— 94	— 111

Bamian, Central Afghanistan

23. ix.	49.	♂	1½×1	— 33	— 95	— 112
12. x.	49.	♂	1½×1	— 40	— 96	— 110 juv.
15. x.	49.	♂	1½×1	— 39	— 93	— 103
18. ix.	49.	♀		— 36	— 89	— 98
30. ix.	49.	♀		— 33	— 90	— 103

In the specimens from the spring and summer there is some variation in the intensity of the rufous colour above, especially in the two birds from Pashki it is dark and of less extension. These differences seem, however, to be individual and not geographical.

Western Afghanistan: The Rufous-backed Shrike is not restricted to eastern Afghanistan for on July 5, 1949, I collected a female at Herat, where I had seen another one a few days earlier. It lived there in the open willow scrub. – In southwestern Afghanistan I saw a few on April 28 in the hotel garden at Farah. Although they were singing, they may have been migrants.

Eastern Afghanistan: In May and June I saw it at several localities from west of Kandahar to Kabul. On May 7 there was one in a wadi with a few small bushes 50 km. west of Kandahar, on the 8th several around Mukur, and on the 10th more at Ghazni and farther over Wardak to Kabul. These birds might have been migrants, but some remain to breed in this region for I saw a few at the large villages when on June 24–25 I passed again on a drive from Kabul to Kandahar. On May 23 I found it also in the upper Logar Valley and in the valley leading to Tera Kotal, and in the last days of the month I saw one in Kabul and several in a poplar plantation near the Tangighori Gorge.

Central and northern Afghanistan: I saw several on the first days of June in the Ghorband Valley and at Doab north of Darra-i-Shikari.

At these two localities it was seen again on August 6 and 7. Down the Surkhab Valley it occurred at Pul-i-Khumri on August 6.

Nuristan: It breeds in the lower valleys of this province. When on March 31, 1948, we left Gusalek in the middle Pech Valley it had still not arrived, but when we returned I found it in the first week of August at several localities from Gusalek down to Chigha Sarai. Higher up the valley I did not observe it at Wama in April, but at Pashki (May 5 to June 14) I saw three individuals on May 12, 13, and 14. As I saw these three birds on three successive days only, I think they were migrants in spite of the late date. In the male collected the testes were rather large, in the female the sex organs were only slightly developed. It may, however, be a scarce breeding bird in the higher parts of the valley for on June 15 I saw a single singing bird between Pashki and Stiewe.

Badakhshan: I found it July 11–12 at several localities in the broad part of the Kokcha Valley between Faizabad and Barak. In the higher parts of the valley I saw only on July 4 a single one between Kachari and Parwara (ca. 2250 m.).

During the autumn observations at Bamian I saw single birds on several days between September 6 and October 15, namely on September 6, 7, 9, 18, 23, and 30, and on October 1 (two individuals), 12, and 15. They were probably migrants. The five specimens collected there were all birds of the year.

(230). *Lanius minor turanicus* Fediuschin – Lesser Grey Shrike

Obeh, W Afghanistan

13. vii. 49.	♂	3×2	we. 48	wi. 119	tl. 91
17. vii. 49.	♂	2×1	— 39	— 113	— 83 juv.
16. vii. 49.	♀	6×3	— 46	— 115	— 84

Bala Murghab, NW Afghanistan

25. vii. 49.	♀	5×3	— 46	— 117	— 86 juv.
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Pul-i-Khumri, N Afghanistan

6. viii. 49.	♂		— 42	— 116	— 86 juv.
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The adults as well as the juvenals in this series were moulting.

VAURIE recently (1955, Am. Mus. Nov. 1752: 14) recognized the subspecies *turanicus* because the juvenile specimens in barred plumage differ in the western and eastern populations. In the eastern they are paler above and more sandy in tone, less grey, than juvenals in the west. The populations of Iran, Afghanistan and Turkestan belong to *turanicus*.

In the middle of July I found a few Lesser Grey Shrikes in places with high trees in the side valley at Obeh, east of Herat. It occurred up to an elevation of 1900 m. – In northern Afghanistan I saw on July 25 one at

Bala Murghab, and two on August 6 a few kilometres south of Pul-i-Khumri in the Surkhab Valley.

On the Lower Farah Rud in Seistan I saw single grey shrikes on March 26 and 30, 1949, and one at Farah on February 22, but I dare not say whether these were *minor* or *excubitor*. The same applies to one seen in the Tarnak Valley on February 17. During a drive down this valley on June 25 I saw again a few, and the next day some in the cultivated areas west of Kandahar. Unfortunately, I passed only through this region so I did not have the opportunity to decide which of the two shrikes is breeding at Kandahar.

The status of *L. excubitor* in Afghanistan is very little known. In the province of Kandahar *L. e. pallidirostris* seems to be a winter visitor. This race is the breeding bird from Transcaspia to Mongolia and south to Syr Darya. TICEHURST (1926, Jour. Bombay Nat. Hist. Soc. 31: 701) refers also the population of Baluchistan to this race; according to other authors it belongs, however, to *aucheri* which inhabits the region from Palestine to Iran. The only specimen of the Great Grey Shrike collected in Afghanistan during the breeding season was referred to *aucheri* by WHISTLER (1944, Jour. Bombay Nat. Hist. Soc. 45: 70). It was a male taken on May 3, 1885, at Shore Kaltegai in Siah Bubak west of Gulran in the northwestern corner of the country (AITCHISON 1889: 76). The Indian race *lahtora*, which according to HARTERT (1910, 1: 430) "bewohnt die Ebene Indiens... westlich bis Sindh, Afghanistan und Baluchistan" seems never to have been recorded from Afghanistan.

(232). *Hypocolius ampelinus* Bonaparte – Grey Hypocolius

Synonym: *Hypocolius ampelinus orientalis* Koelz, Proc. Biol. Soc. Washington 52: 64 (1939 – Kandahar)

Faizabad, Seistan

16. iv. 49.	♂	7×5	we. 48	wi. 106	tl. 109
	o		— 49	— 104	— 107 (♀)
	♀	3	— 55	— 99	— 96
18. iv. 49.	♀	2	— 50	— 105	— 107

Iris dark brown. Feet flesh colour.

Most recent authors now place this genus in the family of *Bombycillidae*.

In October 1937 KOELZ collected five birds at Kandahar, the first ones known from Afghanistan, and separated them from Iraq birds under the name of *orientalis*. MEINERTZHAGEN (1954, Birds of Arabia: 175), however, considers that *orientalis* is a synonym of the typical form because a specimen in his collection from near Kandahar exactly matches Iraq specimens.

At Baqrabad on the Lower Farah Rud in Seistan I saw on April 16, 1949,

a flock consisting of 5–6 *Hypocolius*. It was in a low tamarisk scrub among some fields. They perched close together in the top of the low bushes, but were also seen settling on the ground. The 18th we saw again four, namely one male and three females. They were very wary and disappeared when I had collected one. In the male collected the testes were enlarged and injected. In the two females dissected the sex organs were slightly enlarged.

On May 5 I saw a flock of about a dozen individuals on a small wooded island in the Helmand river at Lashkari-Bazar, south of Girishk. The status in Afghanistan of this species is not clear, but its occurrence as late as May 5 makes it probable that it breeds somewhere in the southern parts of the country.

When the male erects the nape and crown feathers the black patch behind the eye is much enlarged. Presumably, it functions as a kind of signal. During the flight it has a call note which to some extent reminded me of that of *Merops apiaster*.

(233). *Cinclus cinclus leucogaster* Bonaparte – White-bellied Dipper

Obeh, W Afghanistan

11. vii. 49. ♀ 2×1 we. 41 wi. 88 juv.

Bamian, Central Afghanistan

13. ix. 49. ♀ 6×3 — 50 — 91

4. x. 49. o — 49 — 89

The two adults had nearly completed the moult, but many body feathers were still growing.

For a discussion of *C. cinclus* in Afghanistan and neighbouring countries see VAURIE (1951, Am. Mus. Nov. 1485: 11).

The White-bellied Dipper I found as far west as at Obeh, where on July 11, 1949, I saw two young birds along the very small brook in the side valley at an elevation of 2050 m. – In Hazarajat on June 12 I observed one along the main river and another along a small brook near Panjao. – Finally, I found it in the Bamian region in September and October. There it lived only along the small mountain brooks at elevations between 2800 and 3500 m.

(234). *Cinclus pallasii tenuirostris* Bonaparte – Brown Dipper

Synonym: *Cinclus pallasii kargasiensis* Koelz, Proc. Biol. Soc. Washington 52: 65 (1939 – Kargasi Pass, Badakhshan)

Gusalek, Nuristan

29. ii. 48. ♂ 7×4 we. 79 wi. 99

Wama, Nuristan

9. iv. 48.	♂	9×5	we. 71	wi. 103
	♀		— —	— — juv.

Pashki, Nuristan

7. vi. 48.	♂	8×4	— 78	— 99
12. v. 48.	♀	10×5	— 71	— 91

Stiewe, Nuristan

20. vi. 48.	♀	9×4	— 64	— 94
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The irregular moulting period in this species may start very early in the year as shown by the female collected on May 12 in which new feathers were growing around the eye. In the male from June 7 and in the female from the 12th some body and head feathers were growing.

As to the validity of the subspecies *kargasiensis* see VAURIE (1. c., p. 16).

The two species of dippers in Afghanistan seem partly to replace each other geographically. *C. c. leucogaster* occurs from the region of Herat in the west to Ghorband Valley in the east. *C. pallasii* occurs also in this valley, but according to MEINERTZHAGEN (1938: 692) at lower altitudes than *C. cinclus*. Further east *C. pallasii* is distributed in Nuristan and Badakhshan.

On February 27–29, 1948, I saw a few Brown Dipper along the Pech River between Chigha Sarai and Gusalek. Presumably, it visits this part of the river only during the winter season for I never saw it again during the rest of my stay at Gusalek (until the end of March). – Higher up the Pech-Parun Valley, at Wama, Pashki and Stiewe (2600 m.), it was in its breeding grounds. At Wama, where the main river is a vigorous and deep torrent at spring time, only a few were seen there, while it was rather common along the smaller mountain torrents with numerous falls.

The breeding season seems to start very early. In the male collected on February 29 the testes were already rather enlarged, and on April 9 I met the first family party at Wama. In a juvenal collected some of the primaries were still not fully grown out. At Pashki the breeding season probably falls a little later, for there I did not observe a family party until May 14, and another pair had presumably still young in the nest on the 31st.

In Badakhshan I found it during July at a few localities in the higher parts of the Kokcha and Sanglich valleys. The elevations were between 2600 and 3000 m.

(235). *Troglodytes troglodytes neglectus* Brooks – Wren

Gusalek, Nuristan

3. iii. 48.	♂	< 1	we. 8	wi. 48
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Dr. VAURIE has had the kindness to compare the specimen above with the material in the American Museum. He found it to be a very good *neglectus* which is the race inhabiting the region from Kumaon to Kashmir and, as shown by this specimen, as far west as Nuristan.

T. t. neglectus was not taken earlier in Afghanistan where two other subspecies are known to occur, namely *magrathi* in the Safed Koh at the southeastern border of the country, and *tianschanicus* (synonym: *subpallidus*) which has been collected from Bend-i-Turkestan to Pul-i-Khumri in northern Afghanistan and probably at Paghman west of Kabul.

Between February 27 and March 22, 1948, I made three observations of single Wrens at Gusalek in the Lower Pech Valley, Nuristan, where we camped from February 24 until March 28. Probably the Wren does spend only the most severe winter time there. On May 18 I found it in its breeding ground above Pashki at an elevation of 3600 m. The habitat was a mountain slope with boulders and juniper scrub above the limits of forest. Only one individual was observed.

(236). *Prunella collaris rufilata* (Severtzov) – Alpine Accentor

Stiewe, Nuristan

20. vi. 48.	♂	14×10	we. 29	wi. 95
	♂	17×10	— 32	— 101
	♀	5×3	— 28	— 94
	♀	4	— 29	— 89

Dr. MARIEN has had the kindness to compare my specimens with the material in the American Museum. He writes: "We have only two specimens of *rufilata* from Turkestan and they are in fresh plumage. They are much lighter above than your four birds, though the rufous flanks are alike in color. I would say, however, that they cannot be safely compared because of the seasonal difference. Compared with specimens of *whymperi* from Kumaon in similar plumage, the rufous flanks of your birds are lighter, the back slightly lighter, but almost imperceptibly so. – I would conclude that your birds are most likely *rufilata*."

The Alpine Accentor I found only in Nuristan where it breeds in the higher valleys near the central ridges. At winter time I saw one down at Gusalek (1000 m., February 28, 1948). On June 20 I observed a few pairs up in one of the high valleys above Stiewe. They lived in a rather broad and boulder strewn part of the valley at an altitude of approximately 3000–3500 m. On June 29 it was observed at an elevation of 3900 m. in the valley leading from Stiewe to the Weran Kotal.

In the two males collected on June 20 the testes were injected and at

their maximum size as were the *vesiculae seminales*. In one of the two females from the same date the follicles had just gone into the period of maximum growth, in the other the development was less advanced. These observations indicate that the breeding season commences by the end of June.

(238). *Prunella strophhiata jerdoni* (Brooks) – Jerdon's Accentor

Synonym: *Prunella strophhiatus sirotensis* Koelz, Proc. Biol. Soc. Washington 52: 67 (1939 – Sirotai (Saroti), Gardez, E Afghanistan)

Stiewe, Nuristan

17. vi. 48. ♂ 11×8 we. 16 wi. 68

VAURIE has shown (1955, Am. Mus. Nov. 1751: 20) that *sirotensis* is not separable from *jerdoni* (Kashmir). According to Dr. MARIEN (in lit.) the specimen above agrees well with a series of *jerdoni* in comparative plumage.

I found Jerdon's Accentor only in one locality, namely in one of the valleys at Stiewe in Nuristan. There it inhabited a low willow scrub at an elevation of 3200 m. Besides the male collected I saw another individual. The large injected testes and the much enlarged *vesiculae seminales* show that the bird was in a sexually active stage.

Next to a male and a female taken by KOELZ at Saroti this is the second record in Afghanistan.

(239). *Prunella atrogularis* – Black-throated Accentor

a. *Prunella atrogularis atrogularis* (Brandt)

b. *Prunella atrogularis huttoni* (Horsfield & Moore)

Accentor huttoni Horsfield & Moore, Cat. Birds East India Comp. Mus. 1: 360 (1854 – Simla and Afghanistan)

a. Estuary of Farah Rud, Seistan

26. ii. 49. ♂ 1½ wi. 74

b. Gusalek, Nuristan

3. iii. 48. o we. 19 wi. 74

8. iii. 48. o — 21 — 75

♂ 2×1 — 20 — 76

15. iii. 48. ♀ 5×3 — — — 70

The specimen from Seistan differs from those collected in Nuristan by a shorter bill and a vague band of whitish separating the black of the throat from the dark buff of the breast. I therefore consider it to be a representative of nominate *atrogularis* while the other specimens belong to *huttoni*.

Both subspecies are known only as winter visitors in Afghanistan. In Seistan we saw two birds on February 26 in the estuary of Farah Rud. At Gusalek in Nuristan I saw a few between March the first and the 17th.

(240). *Prunella fulvescens fulvescens* (Severtzov) – Brown Accentor

Weran Valley, Badakhshan

21. vii. 48. o we. — wi. 74 juv.

Bamian, Central Afghanistan

13. ix. 49. ♂ $1\frac{1}{2} \times 1$ — 20 — ?

On September 13, 1949, I found half a dozen Brown Accentors in a bowlshaped, stony valley above Bamian at an elevation of 3100–3200 m. The male collected was moulting its primaries, rectrices, and body feathers, so the birds were most likely in their breeding ground. On October 4 I observed a few more in a very similar habitat at an elevation between 3400 and 3500 m. – A juvenile bird was collected on July 21, 1948, at 3650 m. in the Weran Valley, Badakhshan. In this province it was also taken by KOELZ during the breeding season, and his moulting specimens collected during September and October in Bend-i-Turkestan probably show that this species breeds in most of the country from west to east.

(241). *Luscinia megarhynchos hafizi* Severtzov – Nightingale

Panjao, Central Afghanistan

15. vi. 49. ♂ we. 25 wi. 94

12. vi. 49. ♀ 8×4 — 21 — 90

Obeh, W Afghanistan

11. vii. 49. ♀ — 22 — 87

12. vii. 49. ♀ 4×2 — 22 — 88♀ $1\frac{1}{2} \times 1\frac{1}{2}$ — 18 — — juv.

I have not been able to compare this small series with topotypical *hafizi* from Turkestan. Compared, however, with a series of spring birds of nominate *megarhynchos* from Macedonia the upper parts are distinctly greyer, not so reddish, and correspond to the description of *hafizi*, showing the difference which characterizes this race from *megarhynchos*. In two males from Lenkoran (*africana*) the upper parts are darker, more brownish, than in the Afghan specimens.

MEINERTZHAGEN (Ibis 1938: 688) seems to be the only one who has previously recorded the Nightingale from Afghanistan. He observed it only at the Danaghori Plains in the northern parts of the country where it presumably bred. On July 7, 1948, I heard its song a few times in Jurm and on the evening of the 9th one sang in a garden in Faizabad (Badakhshan). – In Hazarajat it was rather common at Panjao in the middle of June 1949. I heard its voice very often from the willow scrub along the river in the main valley. In the female collected on June 12 the sex organs were only slightly enlarged. The testes of the male were shattered but

vesiculae seminales were enlarged as in the active stage. – At Obeh in western Hazarajat I heard very little song in the middle of July. In both of the adults collected the postnuptial moult had started. In the young bird the primaries were not yet fully grown out. At Obeh the Nightingale did not live in the main valley but in scrub in the rather narrow side valley. It was found up to an altitude of about 2300 m.

(242). *Luscinia svecica* – Bluethroat

- a. *Luscinia svecica pallidogularis* (Sarudny)
- b. *Luscinia svecica saturator* (Tugarinov)
- c. *Luscinia svecica abbotti* (Richmond)

a. Estuary of Farah Rud, Seistan, 26.–30. iii. 49.

Weight ♂♂: 14, 15, 17, 17, 18

Wing ♂♂: 71, 71, 71, 72, 73

b. Bamian, Central Afghanistan, 13. ix.–14. x. 49.

Adults and subadults:

Weight 11 ♂♂: 15–17 (16,0); 5 ♀♀: 14–16 (14,6); 6 sex ? : 14–17 (15,0)

Wing 11 ♂♂: 71–77 (74,2); 5 ♀♀: 67–73 (70,8); 6 sex ? : 67–74 (70,5)

c. Panjao, Central Afghanistan

12. vi. 49. ♂ 6×4 we. 19 wi. 74

13. vi. 49. ♂ 6×4 — 14 — 75

14. vi. 49. ♀ 3 — 19 — 70

o — 16 — 71 juv.

Tilli, Badakhshan

18. vii. 48. ♀ 5×3 — — — 70

This series consists of 1) spring migrants from Seistan in southwestern Afghanistan, 2) autumn migrants from Bamian in central Afghanistan, and 3) breeding birds from the central and northeastern parts of the country, and represents three different subspecies. The birds from Seistan agree with breeding birds of *pallidogularis* from western Siberia in having pale upper parts and throat. The throat spot in two of the specimens is darker, in the other paler redbrown.

The upper parts in the autumn migrants from Bamian are dark as in *saturator* but slightly greyer, not so brownish, as in this race. In view of this difference the birds presumably ought to be named *tianschanica*, but MEINERTZHAGEN (Ibis 1938: 689) who has compared the material in the Leningrad Museum states that both *tianschanica* and *altaica* are not separable from *saturator*. With the scanty comparative material at my disposal it is probably best to follow MEINERTZHAGEN and to name my dark migrants *saturator*.

The breeding birds from Badakhshan and Hazarajat I refer to *abbotti*.

The type of this form came from Ladak, but VAURIE (1955, Am. Mus. Nov. 1731: 10) includes also the populations from Gilgit, Baltistan, and Zaskar in this subspecies and he questions the statement of TUGARINOV (1929, Ann. Mus. Zool. Acad. Sci. U.R.S.S. 29: 1-14) that this race inhabits also the Pamirs and eastern Buchara. I have not been able to compare my Afghan breeding birds with material of *abbotti* but they are neither *pallidogularis* nor *saturator* (= *tianschanica* = *altaica*) and their throat spot is white in two specimens, redbrown bordered with white in the two others as described for *abbotti*. Two males collected in March at Kabul by Maconachie are by WHISTLER (1944: 66) also referred to this form.

In Nuristan I did not find the Bluethroat and in Badakhshan I observed it only in the higher parts of the Kokcha Valley at an altitude of about 2700 m. near Tilli and Nau where it inhabited the willow and Hippophaës scrub along the river (Fig. 9). It presumably had young still not fledged at June 30, when I saw an adult flying with food. In the female from July 18 the postnuptial moult had started. - At Panjao in eastern Hazarajat I found it in the same habitat as in Badakhshan. In the male from June 13 the *vesiculae seminales* were enlarged as in the active stage. On June 14 I collected a fully fledged young. This, presumably, is the first breeding record for the Bluethroats in Afghanistan.

During the spring migration of 1949 we saw a few in the tamarisk scrub in the estuary of Farah Rud on March 26-30, and on April 6 a male (and a female ?) along the river at Farah.

The autumn migration of the same year we observed at Bamian where the first birds appeared on September 13. From then on we saw a few but no more than half a dozen on most days until October 15. I found it especially in a poplar plantation along the river, but also in lucerne fields as well as among rocks at an altitude of 2900 m. in a side valley and among tussocks along a small brook in Darra-i-Shahidan at 3000 m.

(243). *Luscinia brunnea brunnea* (Hodgson) - Indian Bluechat

Pashki, Nuristan

22. v. 48. ♂ 8×5 we. 14 wi. 76

It is the first record of this Himalayan species in Afghanistan. I heard it for the first time on May 14 at Pashki in the Parun Valley where it undoubtedly bred for I heard it there several times until June 10 and again at Stiewe on June 22 and 24. In the specimen collected the testes were enlarged and injected and the *vesiculae seminales* protruding. Its habitat was birch or other sorts of scrub on the mountain slopes, often bordering cultivated fields or grass-clad areas. I once found it also in an *Abies* growth

intermixed with scrub. The voice is unmistakably nightingale-like with 2-3 high flute tones followed by a trill. It is a very skulky bird, exceedingly difficult to drive from its cover in the dense scrub.

(244). *Luscinia pectoralis ballioni* (Severtzov) – Himalayan Rubythroat
Stiewe, Nuristan

17. vi. 48. ♂ 9×5 we. 20 wi. 70

I have not been able to compare this specimen with *ballioni* (Ferghana and Tianshan) and nominate *pectoralis* (Himalayas from Gilgit to Nepal). VAURIE (in lit.), however, informs me that breeding birds collected by KOELZ in Afghanistan are *ballioni*, not nominate *pectoralis*.

The specimen above was collected in a willow scrub around a banda at an altitude of 3200 m. above Stiewe and it was the only individual I ever saw. The testes were enlarged and *vesiculae seminales* protruding.

STUART BAKER (2: 93) includes Afghanistan in the breeding range of this species but it is not possible to find any authority for this statement. The Stiewe specimen seems to be the first one published from Afghanistan.

(245). *Irania gutturalis* (Guérin) – Persian Robin (White-throated Robin)
Obeh, W Afghanistan

15. vii. 49. ♂ 1½×1 we. 26 wi. 98

The Persian Robin I found only at Obeh where, in the middle of July, there were a few in the scrub in the bottom of the side valley at altitudes between 1800 and 2100 m. The specimen above was in postnuptial moult with many body feathers growing.

There are only two other records from Afghanistan. MEINERTZHAGEN (Ibis 1938: 690) saw a pair at Bamian on April 23. In the male the testes were much enlarged. MACONACHIE (WHISTLER 1944: 66) has also collected a female at Kabul on May 24. This last bird at any rate, presumably was taken in its breeding area.

(246). *Phoenicurus ochruros phoenicuroides* (Horsfield and Moore)
– Black Redstart

Pashki, Nuristan

10. v. 48. ♂ 7×4 we. 16 wi. 84
11. v. 48. ♂ 7×4 — 14 — 85
6. vi. 48. ♂ 7×4 — 16 — 82 subad.

Stiewe, Nuristan

17. vi. 48. ♂ 7×5 — 15 — 83 subad.
♂ 7×4 — 15 — 87
20. vi. 48. ♀ 6×4 — 17 — 76

Tilli, Badakhshan

19. vii. 48. ♂ 4×2 we. 15 wi. 84

Baqrabad, Seistan

28. ii. 49. ♂ 1×¹/₂ — — — 85

Panjao, Central Afghanistan

13. vi. 49. ♂ 4×3 — 14 — 77

Bamian, Central Afghanistan, 8. ix.–14. x. 49.

Weight ♂♂ ad.: 15, 15, 16, 16, 18; subad.: 17; ♀♀: 14, 15

Wing ♂♂ ad.: 82, 85, 86, 86, 86; subad.: 81; ♀♀: 80, 82.

A subadult collected on September 4 at Bamian is a male in postjuvenile moult. The fresh plumage is also female-like as the juvenile plumage was. The breeding male from Panjao is in female plumage. In a female from September 9 and in a male from the 22nd the body feathers were still growing after the postnuptial moult.

The birds show rather a good deal of individual variation but may all belong to *phoenicuroides* although I have not been able to compare them with material of this race. In the males from spring and summer the colour of the crown, which varies from greyish to greyish-black, contrasts with the coal-black back. In the bird from Baqrabad and in a male collected on September 22 at Bamian the upper parts are less black than in all the other specimens.

During the breeding season I found the Black Redstart only at rather high altitudes in the central and northeastern parts of the country. In the Parun Valley in Nuristan I collected a male at Pashki on May 10. It was flushed from some scrub in the bottom of the main valley together with a female. The testes were enlarged and injected, but nevertheless, I believe, it may have been a migrant, as also a few were seen the next day, though this redstart was usually not seen at this low altitude. It bred, however, above Pashki where I shot a male on June 6 at an altitude of about 3200 m. Its *vesiculae seminales* were enlarged. The habitat was a rocky mountain slope with plants characteristic of the *Artemisia* steppe. On July 25 I saw some again at 3600 m. above Pashki. – Above Stiewe I found it breeding in willow scrub at altitudes between 3200 and 3600 m. A female shot on June 20, but not skinned, was in laying condition, and two males from the 17th had very enlarged *testes* and *vesiculae*.

In Badakhshan it was very common in many places in the Weran, Kokcha, Warduj, and Sanglich valleys at altitudes between 2200 and 4000 m. At Miyan Deh (2550 m.) it was so numerous that 3–4 males could be seen on the same small fallow field. Fully fledged young were seen on July 1.

In eastern Afghanistan I saw a male at an altitude of about 2800 m. in the Saroti Kotal on May 25. – In central Afghanistan I saw several on June 10 from Unai Kotal and westwards. At Panjao, however, I saw only the male I collected. – On June 5–6 it was very common in some parts of the Bamian Valley and in the high valleys west of it, in the direction of Band-i-Amir. A nest placed in a hole in a rock wall contained downy young. When I returned to this area in the beginning of September I found the redstart common on the same places as in June. At the end of the month their number decreased considerably, thus I did not see a single bird on a drive to Band-i-Amir the 28th. In the Bamian Valley I made the last observations on the 30th and on October 4.

During all the time we were in Seistan we observed only the male collected at Baqrabad on February 28 and two single males on March 7 and 18 in the tamarisk scrub in the estuary of Farah Rud. These may have been winter visitors as some birds seem to remain in southern Afghanistan during the winter.

(247). *Phoenicurus frontalis* Vigors – Blue-fronted Redstart

Pashki, Nuristan

10. v. 48. ♂ 4×3 we. 18 wi. 88

I have not been able to compare this specimen with material from the Himalayas. According to VAURIE (1955, Am. Mus. Nov. 1731: 16), however, the species seems to be monotypic. It is the first record of the Blue-fronted Redstart for Afghanistan. STUART BAKER (2: 69) had included Afghanistan in the breeding range, it is true, but apparently without authority for his statement.

I collected the bird in the hazel scrub in the bottom of the valley at an altitude of 2200 m., and it was the only one I ever saw. Presumably it is a scarce breeding bird in Nuristan.

(248). *Phoenicurus erythrogaster grandis* (Gould) – Gldenstdt's Redstart

Ruticilla grandis Gould, Proc. Zool. Soc. London 17: 112 (1848 – Afghanistan and Tibet)

Bamian, Central Afghanistan

15. x. 49. ♂ 1×1 we. 25 wi. 108

14. x. 49. ♀ 2×1¹/₂ — 21 — 96

15. x. 49. ♀ 2×1 — 22 — 101

Although Afghanistan (and Tibet) is the type locality of *grandis*, these three specimens seem to be the first ones reported from there, except for a male collected in April 1874 by STOLIZKA at Panjah in Wakhan where he

found it very common on the 15th "but at that date there was no evidence of its nesting" (SHARPE 1891: 88). – At Bamian a few, presumably migrants, appeared on October 14–15. It was the only opportunity I ever had to observe this bird.

(249). *Phoenicurus erythronotus* (Eversmann) – Eversmann's Redstart

Synonym: *Ruticilla rufogularis* Moore, Proc. Zool. Soc. London **22**: 27 – (1854 – N. India, but according to WHISTLER (1944: 65) the type was collected by GRIFFITH at Pashat in the Kunar Valley, Afghanistan)

Gusalek, Nuristan

7. iii. 48.	♂	1×1	we. 18	wi. 87
10. iii. 48.	♂	3×2	— 18	— 87
13. iii. 48.	♂	2×1	— 15	— 86
24. iii. 48.	♂	2×1½	— 19	— 88
3. iii. 48.	♀	½	— 17	— 88

Farah, SW Afghanistan

22. ii. 49.	o		— —	— 88
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Bamian, Central Afghanistan

15. x. 49.	♀		— 17	— 83
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Eversmann's Redstart is a passage migrant and winter visitor to Afghanistan. The spring migration 1948 passed through Gusalek in the Pech Valley (Nuristan) in March. Besides the birds collected there I saw half a dozen on the 10th in oak scrub at an altitude of 1500–1700 m. – In the spring of 1949 we saw some in the hotel garden in Farah on February 22. – At Bamian the only one I saw with certainty was the bird listed above.

(250). *Phoenicurus coeruleocephalus* Vigors – Blue-headed Redstart

Gusalek, Nuristan

20. iii. 48.	♂		we. 15	wi. 84
	o		— 15	— 81 ♂!

Wama, Nuristan

4. iv. 48.	♂	4×3	— 16	— 83
	♀	5×3	— 13	— 78

Pashki, Nuristan

7. v. 48.	♂	6×4	— 13	— 82
11. v. 48.	♂	8×5	— 14	— 84
3. vi. 48.	♂	6×4	— —	— 80
	♂	6×4	— 13	— 82
30. v. 48.	♀	3	— 14	— 76
11. vi. 48.	♀	laying	— 17	— 80

The Blue-headed Redstart is known only from the eastern parts of Afghanistan. At Gusalek and Wama in the Pech Valley (Nuristan) it

passed up the valley from March 19 to April 14. Until April 3 only males had appeared. At Pashki it was on its breeding range and was a rather common bird there in the coniferous forest, but I found it also in hazel scrub in the bottom of the valley and especially in *Juniperus* above the forests up to an altitude of 3300 m. In all the males collected in May the testes were enlarged and injected. The female taken on June 11 at an elevation of 3300 m. had an egg in the oviduct. The clutch size would presumably have been four. I saw it only in the Pech-Parun Valley, but not at Stiewe above the forest zone.

(251). *Chaimarrornis leucocephalus* Vigors – White-capped Redstart

Gusalek, Nuristan

3. iii. 48.	♂	2×1	we. 30	wi. 101
27. ii. 48.	♀		— 29	— 98
11. iii. 48.	♀	5×3	— 25	— 89

Wama, Nuristan

13. iv. 48.	♂	3×2	— 30	— 95
6. iv. 48.	♀	6×3	— 27	— 90

Pashki, Nuristan

13. v. 48.	♂	10×6	— 35	— 100
	♀	3	— 29	— 88
6. vi. 48.	♀	1	— 24	— 86

Bamian, Central Afghanistan

22. ix. 49.	♂	1½×1	— 31	— 100
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There seems no reason to recognize *pamirensis* as shown by VAURIE (1955, Am. Mus. Nov. 1731: 19).

On February 19, 1948, I saw a single White-capped Redstart at Darontah near Jalalabad. At Gusalek in Nuristan it was seen several times from the end of February through March along the Pech and Digal rivers and along the irrigation canals in the cultivated fields. At the end of March they were in pairs. – Around Wama in April I found only a few. In one case it was along the main river, the others along a brook up to an altitude of 2000 m. In the females collected the sex organs were undeveloped and the birds were moulting the body feathers as was the female from Gusalek February 27. – While the birds at Darontah and Gusalek (and Wama ?) presumably were on their wintering grounds, the birds at Pashki were on their breeding grounds. I saw it twice down the main valley, but its real habitat was the smaller brooks at higher elevations, up to 3100 m. where remnants of lavines persisted to the middle of the summer. The male collected on May 13

had testes of about maximum size and the female from the same date had presumably finished laying shortly before. – At Stiewe I saw a few high up in side valleys on June 17 and 20.

Outside Nuristan, my only record is that of the specimen collected on September 22 in the Bamian Valley at an elevation of 2600 m.

(252). *Rhyacornis fuliginosus fuliginosus* Vigors – Plumbeous Redstart
Gusalek, Nuristan, 29. ii.–17. iii. 48.

Weight ♂♂: 16, 18, 18; ♀♀: 13, 13, 14, 15

Wing ♂♂: 76, 77, 77; ♀♀: 68, 69, 70, 70

Pashki, Nuristan, 12. v.–1. vi. 48.

Weight ♂♂ ad.: 17, 18, 18; juv.: 14; ♀: 15

Wing ♂♂: 77, 78, 79, 80; ♀: 69

Wama, Nuristan

11. iv. 48. ♂ 8×4 we. 17 wi. 79

Stiewe, Nuristan

16. vi. 48. ♂ 5×4 — 17 — 76

STUART BAKER (2: 82) included Afghanistan in the area of the Plumbeous Redstart, but there seems to have been no basis for this statement until KOELZ collected it in Safed Koh (VAURIE 1955, Am. Mus. Nov. [73]: 20) and I found it rather common along the Pech-Parun River in Nuristan. Down at Gusalek it was rather common at the end of February and in March. During the last part of our stay there the birds were in pairs, and in the males from March 11 and 17 the testes were already much enlarged (7×4 and 5×3). Presumably, however, they were still in their winter quarter, for I did not see any there when we returned in the beginning of August. At Wama it occurred along the main river but was most common along some mountain torrents where they were in pairs in April and were always to be found at the same places. At Pashki in May–June it was most common along the main river but was found also up to an altitude of 2400 m. At Stiewe I saw only a few pairs and some juvenals at the end of June.

While *Chaimarrornis leucocephalus* is a bird of the stream banks, *Rhyacornis fuliginosus* always hunts over the water and in the streams where it perches on stones and boulders in the stream or on overhanging rocks, only exceptionally in trees along the sides of the rivers. On June 1 I found a nest with 5 nearly fully fledged young. A hole in a moss carpet on the river bank led into a small cavity containing the nest, the cup of which was built of moss resting on a layer of blades of grass.

The redstart sings while perched on stones in the stream and the song

is a rather insistent twitter, not very loud but sufficiently high pitched so that it can be heard above the noise of the torrent. These high pitched notes are characteristic of several river birds, and especially the Whistling Thrush.

(253). *Monticola saxatilis* (Linné) – Rock Thrush

Shibar Kotal, Central Afghanistan

2. vi. 49. ♂ 11×6 we. 46 wi. 121

Panjao, Central Afghanistan

11. vi. 49. ♂ 9×6 — 40 — 122

13. vi. 49. ♂ 5×4 — 44 — 120

14. vi. 49. ♂ 5×4 — 54 — 119

17. vi. 49. ♀ 7×4 — 52 — 121

The Rock Thrush is not a common bird in Afghanistan. I observed it only at Bamian, at 2800 m. just west of the Shibar Kotal, and in the upper Ghorband Valley in the beginning of June and in Hazarajat at some localities at altitudes of 2700–3000 m. between Unai Kotal and Panjao in the middle of June and finally a single bird 65 km. north of Shin Dand on July 1. Most of the birds I saw were on rocky slopes, but the female from June 17 was collected, however, on the outskirts of a willow scrub along the river at Panjao. The breeding season seemed to be over by the middle of June.

(254). *Monticola solitarius* – Blue Rock Thrush

a. *Monticola solitarius longirostris* Blyth

b. *Monticola solitarius pandoo* (Sykes)

a. Obeh, W Afghanistan

17. vii. 49. ♂ 2×1 we. 50 wi. 120

Bala Murghab, NW Afghanistan

24. vii. 49. ♀ 4×3 — 51 — 113

Haibak, N Afghanistan

2. viii. 49. ♂ 2×1 — 53

b. Wama, Nuristan

28. iv. 48. ♂ 8×5 — 43 — 116

Stiewe, Nuristan

20. vi. 48. ♂ 9×6 — 46 — 121

♂ 10×7 — 50 — 124

♂ 9×6 — 48 — 120

23. vi. 48. ♀ laying — 53 — 117

MEINERTZHAGEN (Ibis 1938: 682) found the birds which he collected in the Kabul area to be intermediate between *longirostris* and *pandoo*. The specimens above confirm that both forms inhabit the country for in the two

males from Obek and Haibak, which are in the postnuptial moult, the new, blue feathers are considerably paler than in the birds from Nuristan.

In western Afghanistan I saw only the male which I collected at an altitude of 2100 m. near Obek on a rocky mountain slope with scattered small bushes. – In northern Afghanistan we saw some family parties on the rocky slopes along a tributary of Murghab, July 24, and a few individuals around Haibak in the beginning of August. – In Badakhshan I saw a few in the Kokcha Valley in July 1948 as far as the region between Jurm and Faizabad, and in the Sanglich Valley. Unfortunately I collected no specimens in this province so I cannot be certain whether its population belongs to *longirostris* or to *pandoo*.

In the Ghorband Valley in central Afghanistan there were a few in the beginning of June, and on both sides of the Shibar Kotal on September 5, but I saw none in the Bamian Valley or on the trips from there during the rest of September and the first half of October. – Around Kabul I recorded only a single bird in the Tangishore Gorge on May 20.

In Nuristan it is a scarce and very local breeding bird. At Wama I saw two birds on April 28 and 29 which may have been on migration. Above Pashki it bred presumably in some rock walls at an elevation of about 3300 m., the only place where I found it there (May 29, June 11). Around Stiewe it was common up in the side valleys. In all the males from June 20 the testes were in or near their maximum size. The female from the 23rd had an egg in the oviduct and her ovary showed 4 calyces and a single large follicle, so the clutch presumably would have been of 5 eggs.

(255). *Monticola cinclorhynchus* (Vigors) – Blue-headed Rock Thrush

Pashki, Nuristan, 8.–30. v. 48.

Weight ♂♂: 29, 30, 32, 32, 33

Wing ♂♂: 99, 98, 100, 101, 103

I observed the Blue-headed Rock Thrush only in Nuristan. In the oak forests at Wama a few appeared at the end of April and in the first days of May. They sang, perched in the tree tops so presumably they were on their breeding grounds. At Pashki it was more common and was found at the border of glades in the coniferous forests. In all the males collected the gonads were at or near their maximum size (from 6×4 to 9×6).

(256). *Saxicola torquata maura* Pallas – Stonechat

Gusalek, Nuristan

23. iii. 48. ♂ 5×3 we. 13 wi. 67

27. iii. 48. ♀ 6×3 — 12 — 67

Pashki, Nuristan

14. v. 48. ♂ 7×2 we. 11 wi. 69

Estuary of Farah Rud, Seistan

18. iii. 49. ♂ 6×4 — 15 — 69

2. iii. 49. ♀ 7×3 — — — 69

Panjao, Central Afghanistan, 12.–16. vi. 49.

Weight 5 ♂♂: 12–14 (13,0); ♀♀ ad.: 14; pull.: 13

Wing 5 ♂♂: 68–71 (69,8); ♀: 69

Bamian, Central Afghanistan, 6. ix.–14. x. 49.

Weight 11 ♂♂: 11–15 (12,7); 10 ♀♀: 11–13 (12,1)

Wing 11 ♂♂: 68–72 (69,8); 10 ♀♀: 66–71 (67,7)

In these specimens there is only a slight amount of white at the base of the rectrices as is said to be typical for *maura* (synonym *indica*). In this and other respects they are not separable from a series from western Siberia.

The Stonechat is not a common breeding bird in Afghanistan. I am certain only that it breeds around Panjao in Hazarajat. Here, on June 16, I found a nest which was well concealed under the branches of a small willow bush at an altitude of 1700 m. It contained 4 young and one spoiled egg. The tail and wing feathers were just sprouting in the young. In only one of the five males collected at Panjao the testes were at their maximum size and the *vesiculae seminales* much enlarged. — The only other locality where I found it during the breeding season was at Pashki in Nuristan. Here I collected a male on May 14 in which the testes were fully developed and injected. Although I visited the collecting place several times it was the only individual I ever saw during all the summer spent in Nuristan and Badakhshan.

During the spring migration of 1948 I observed a few at Gusalek in Nuristan between March 23 and 30. In the early spring of 1949 I saw three between Dilaram and Farah on February 21 and a few in the tamarisk scrub at Hamun-i-Sabari on March 2 and 18. These birds may have been in their winter quarter as SWINHOE and ST. JOHN found it a common winter visitor in southern Afghanistan around Kandahar. Some migration was noticed in the autumn of 1949 in the Bamian area where I saw from a few to half a dozen or more on most days between September 6 and October 14. The maximum passage took place September 12–21.

(257). *Saxicola caprata rossorum* (Hartert) — Pied Bush-Chat

Farah, SW Afghanistan, 2.–30. iv. 49.

Weight ♂♂ ad.: 14, 15, 15; subad.: 14; ♀♀: 14, 15, 17

Wing ♂♂ ad.: 74, 77, 78; subad.: 75; ♀♀: 71, 72, 73

Shin Dand, W Afghanistan, 28.-29. vi. 49.

Weight ♂♂ ad.: 23; subad.: 16, 25; juv.: 20

Wing ♂♂ ad.: 76; subad.: 71, 74; juv.: 73

Herat, W Afghanistan, 2.-3. vii. 49.

Weight ♂♂: 15, 15; ♀ juv.: 12

Wing ♂♂: 75, 77; ♀ juv.: 73

Bamian, Central Afghanistan, 8. ix.-6. x. 49.

Weight ♂♂ ad.: 16, 17, 26; subad.: 13, 14, 15, 16, 16; ♀♀: 15, 15, 18

Wing ♂♂ ad.: 74, 75, 79; subad.: 73, 73, 73, 74, 74; ♀♀: 70, 73, 76

I have not been able to compare this series with topotypical *rossorum* and *bicolor*, but VAURIE (in lit.) informs me that *rossorum* is perfectly valid and that Afghan birds are *rossorum*, not *bicolor*.

My males in this series from Afghanistan show a considerable amount of individual variation in the extent of the white of the abdomen. In the males from Farah, which were presumably breeding, and—with a single exception—in the passage migrants from Bamian the white area is much extended, while it is rather small in birds from Shin Dand.

The Pied Bush-Chat is a common breeding bird at the lower altitudes, but it avoids completely the mountainous parts of the country. In Seistan proper CUMMING (1905: 687) collected a breeding pair at Kuhak on May 7. It must be a very scarce breeding bird, however, in this area for we never saw it during our rather long stay on the lower Farah Rud. On visits to Farah April 2-6 we found it very common in the hotel garden and in bushes along the river. The males were singing *eagerly*. At the end of the month the situation was unchanged. In the males from the 30th the gonads were at or near their maximum size (from 5×3 to 9×5), and the *vesiculae seminales* well developed. In the female from the 28th the sex organs were also at their maximum stage and the bird would have started laying within a day or two. In another female from the 30th the sex organs were rather undeveloped and perhaps this individual represented birds which were still on migration for when we revisited Farah on June 27 the number had decreased considerably.

Southern Afghanistan: On May 4-7 it was common in Girishk, at Lashkari-Bazar and in the Kandahar area. On this stretch we observed it again, but less numerous, at the end of June. On our drive of May 7-10 from Kandahar through the Tarnak Valley and farther on to Kabul we found it numerous in all the cultivated areas, and it was my impression that the birds were on their breeding grounds. When we returned the same way on June 24-25, however, not a single individual was seen before we reached Kandahar.

Western Afghanistan: We found it to be common in the fields around Shin Dand and in willow plantations along the river. There were many young flying about on June 28–30. In Herat it was common also and was seen often in the town gardens. Young were seen everywhere during the first week of July. It occurred also in the Hari Rud Valley east of Herat to east of Obeh but only in the main valley. Farther east we did not see it, and as we never saw it in eastern Hazarajat in June I presume that it avoids all the central highlands.

Northern Afghanistan: We saw it in the last week of July at: Qala Nau, Bala Murghab, Maimana, Andkhui, between Shibarghan and Aq Chah, and on August 4–5 on the Danaghori Plains.

During the autumn migration of 1949 I observed a few in the Bamian area on several days between September 7 and October 6, and on the 15th again a single male. In one case a female appeared at an altitude of 3050 m.

During the spring and summer of 1948 this species was not found in Nuristan and Badakhshan.

(260). *Cercotrichas galactotes familiaris* (Ménétries) – Grey-backed Warbler

Faizabad, Seistan

10. iv. 49. ♂ 7×5 we. 22 wi. 88

Farah, SW Afghanistan

27. iv. 49. ♂ 5×5 — 28 — 89

Obeh, W Afghanistan

20. vii. 49. o — 18 — 85 juv.

Qala Nau, NW Afghanistan

23. vii. 49. ♂ 1½×1 — 21 — 88

Bala Murghab, NW Afghanistan

26. vii. 49. o — 21 juv.

Bamian, Central Afghanistan

7. ix. 49. ♂ ½×½ — 18 — 86 subad.

14. ix. 49. ♂ 1×1 — 16 — 84 subad.

Topotypical *familiaris* from Transcaucasia was not available for comparison but the four adult birds agree, however, with four specimens collected in the Zagros in western Iran, May 16–20. The two juvenals from July 20 and 26 are of the same general colouration as the adult birds, while the two migrating subadults from Bamian are much paler, more greyish, on the upper parts, and thus approach the description of *deserticola* (= *transcaspica*) from Transcaucasia. This form, however, is not recognized by IVANOV (1940: 232) and VAURIE (1955, Am. Mus. Nov. 1731: 29).

In Seistan and at Farah I saw only the two specimens which were collected. In the Hari Rud Valley I found a single bird in the tamarisk scrub

at Tirpul and one in the fields at Obek on July 9 and 16. In northern Afghanistan it was more common. Here I saw it at several localities between Qala Nau and Shibarghan, July 23–30, in tamarisk scrub or in high herbs in the dry steppe.

During the autumn migration 1949 a few appeared at Bamian on September 7 and 14.

(261). *Oenanthe xanthopyrma chrysopygia* (De Filippi) – Red-tailed Chat

Darontah, Jalalabad

20. ii. 48. ♂ 1×1 we. — wi. 93

Gusalek, Nuristan

23. iii. 48. ♂ 3×2 — 25 — 97

Miyan Deh, Badakhshan

1. vii. 48. ♂ 8×5 — 22 — 94

♂ 8×5 — 20 — 92

Tera Kotal, E Afghanistan

26. v. 49. ♂ 7×4 — 21 — 92

♀ laying — 29 — 92

Ghorband, Central Afghanistan

2. vi. 49. ♂ 6×5 — 22 — 93

Panjao, Central Afghanistan

13. vi. 49. ♂ 6×4 — 22 — 92

14. vi. 49. ♀ 1×¹/₂ — 22 — juv.

Obek, W Afghanistan

15. vii. 49. ♂ — 25 — 96 juv.

Bamian, Central Afghanistan, 8. ix.–16. x. 49.

Weight ♂♂: 20, 21, 23, 24; sex ? : 24, 27; ♀♀: 20, 21, 24

Wing ♂♂: 92, 93, 93, 98; sex ? : 92, 95; ♀♀: 88, 91, 92

I have not been able to compare the Afghan series with freshly moulted, toptotypical *chrysopygia* from Iran. VAURIE (1949, Am. Mus. Nov. 1425: 9) found his Afghan specimens in fresh plumage to be distinctly and constantly paler than *chrysopygia*, and for this pale subspecies he revived the name *kingi* Hume, given to a winter visitor collected at Jodhpur in western Rajputana. Dr. VAURIE (in lit.), however, thinks now that *kingi* is too slight and is better considered a synonym of *chrysopygia*.

VAURIE found that the wing length in his six males from the region of Zebak in northeastern Afghanistan measured 94–100 (97.6), and presumed that the birds of this region are distinctly larger than birds from other parts of Afghanistan. This is not confirmed, however, by my two males from nearby Miyan Deh which measure only 92 and 94, and have a similar wing length as the other 12 specimens from Afghanistan in which the length averages 93.8.

During the breeding season I found the Red-tailed Chat in western Afghanistan on a stony mountain ridge at an altitude of about 2500 m. above Obeh, July 15, and south of the Sauzak Kotal, July 22. In central Afghanistan I saw it at several localities from Panjao over the Unai Kotal to Maidan Valley, June 9–19; and from the Ghorband Valley to Darra-i-Shikari, Bamian and the high valleys between Bamian and Band-i-Amir, June 2–6. – In eastern Afghanistan I found it at 2700 m. in Tera Kotal near Gardez. The female of the pair collected there on May 26 was laying. Two eggs had been laid, one was in the oviduct, and two more follicles would presumably have left the ovary, which indicates a full clutch of 5 eggs. – In the desolate valleys of Badakhshan—Kokcha, Warduj and Sanglich—it was rather common from an altitude of about 2700 m. down to about 2000 m. in July. – It mostly occurred on stony mountain slopes but could also be seen on dry fallow fields.

Outside the breeding season I observed it in the valley of the Kabul River between Sarobi and Jalalabad on December 14, 1947, and February 19–20, 1948. In Nuristan I saw a single bird at Gusalek on March 23. When I began the autumn observations in the Bamian area on September 6, 1949, I found several Red-tailed Chats there and their number seemed rather constant during the first week, thereupon it decreased for some days and then increased again to about the earlier number for the rest of the month. In the first week of October I only observed a few and none from 10th to 15th. There was nothing like a mass migration coming through the area and it was very difficult to know whether the birds consisted of birds on passage or represented the departure of the breeding population.

(262). *Oenanthe oenanthe oenanthe* (Linné) – Common Wheatear

Panjao, Central Afghanistan, 14.–16. vi. 49.

Weight ♂♂: 22, 22, 23, 24, 25; ♀: 25

Wing ♂♂: 94, 95, 97, 97, 100; ♀: 92

Unai Kotal, Central Afghanistan

10. vi. 49. ♀ 2 we. 24 wi. 92

Shibar Kotal, Central Afghanistan

2. vi. 49. ♂ 7×4 — 25 — 99

♀ 8×4 — 27 — 95

Sauzak Kotal, W Afghanistan

22. vii. ♂ 1×1/2 — 27 — 100 juv.

o — 25 — 96 juv.

All the adults from June are in badly worn plumage. A male from June 14 is moulting the wing feathers. The juvenals from July 22 are moulting.

The worn plumage does not permit subspecific discrimination. VAURIE,

however, supports (1949, Am. Mus. Nov. 1425: 10) the conclusions of MEINERTZHAGEN and KOZLOVA that neither *rostrata* (probably migrants from "Upper Egypt, northern Arabia, and Syria") nor *argentea* (Bura, south of Lake Baikal) can be separated from nominate *oenanthe*, which also inhabits Afghanistan.

The distribution of the Common Wheatear in Afghanistan is rather restricted. We found it in three areas only: 1) On June 2–6 in the valleys just east and west of the Shibar Kotal, in the upper Bamian Valley between 2700 and 2800 m., and in the high valleys farther west in the direction of Band-i-Amir, 2) Between Unai Kotal and Panjao in eastern Hazarajat, June 10–19, and 3) South of the Sauzak Kotal in the region of Herat on July 22.

In some of the males from the first half of June the gonads were near their maximum size and the *vesiculae seminales* somewhat enlarged, in other males the gonads were much smaller. In none of the females the sex organs were near the laying stage.

(263). *Oenanthe pleschanka pleschanka* (Lépéchin) – Siberian Chat

Pashki, Nuristan

25. vii. 48. o we. 17 wi. 91 tl. — tr. 23 juv.

Stiewe, Nuristan

24. vi. 48. ♂ 6×4 — 16 — 92 — 60 — 21

19. vi. 48. ♀ 6×5 — 17 — 90 — 57 — 21

Iskan, Badakhshan

6. vii. 48. ♂ $\frac{1}{2} \times \frac{1}{2}$ — 21 — 92 — 60 — 23 juv.

♀ — 16 — 84 — 54 — 22

Faizabad, Badakhshan

10. vii. 48. ♂ 2×1 — 20 — 92 — — — 23

Tera Kotal, E Afghanistan

23. v. 49. ♂ 7×5 — 18 — 94 — 62 — 23

26. v. 49. ♂ 7×4 — 16 — 94 — 61 — 22

23. v. 49. ♀ 8×5 — 20 — 89 — 60 — 22

Panjao, Central Afghanistan

17. vi. 49. o — 19 — 91 — 59 — 21 male

Maidan, E Afghanistan

19. vi. 49. ♂ 8×4 — 15 — 92 — 59 — 20

♂ 6×4 — 16 — 94 — 58 — —

Ardewan Kotal, W Afghanistan

6. vii. 49. ♀ 2×1 — 16 — 90 — 61 — 22 juv.

Maimana, NW Afghanistan

26. vii. 49. ♂ $1 \times \frac{1}{2}$ — 20 — 91 — 59 — 22 subad.

Haibak, N Afghanistan

4. viii. 49. ♂ $1 \times \frac{1}{2}$ we. 19 wi. — tl. 60 tr. 23

Bamian, Central Afghanistan

1. x. 49. ♂ $1 \times \frac{1}{2}$ — 20 — 97 — 61 — 2321. ix. 49. ♀ 5×3 — 21 — 94 — — — —10. x. 49. ♀ 1×1 — 17 — 91 — — — — subad.10. x. 49. ♀ 3×2 — 19 — 92 — — — — subad.

Lower Farah Rud, Seistan, 27. ii.—18. iv. 49.

Weight 10 ♂♂: 17–22 (18,9); 8 ♀♀: 16–20 (18,0)

Wing 12 ♂♂: 89–98 (94,5); 8 ♀♀: 89–93 (90,8)

Tail 12 ♂♂: 57–65 (60,9); 8 ♀♀: 56–60 (57,9)

Tarsus 12 ♂♂: 22–23 (22,9); 8 ♀♀: 22–24 (22,6)

The males from July 10 and 26 and August 4 are moulting. In the female from July 6 the plumage is very badly worn but the moult has not yet started. In a male, collected on March 14 at Baqrabad, Seistan, the black colour of the tail is very reduced, rectrices 3 and 4 are completely white and 2 and 5 have only inconsiderable, dark patches. Some of the other specimens are intermediate between this individual variant and normally coloured birds. HARTERT (I: 689) also found a great variation as to the tail pattern in this species. In the females from the end of March the colour of the throat varies much. In one it is almost black, in another practically no black is visible and further abrasion would not have changed the colour to black (phase *vittata*).

On his map of the distribution of *Oe. pleschanka* GROTE (1937: 116) presumed that most of Afghanistan was included within the breeding area but at that time nothing was really known about its breeding in Afghanistan. Later, however, WHISTLER (1944: 63) showed that the "*Oe. capistrata*" which WHITEHEAD found breeding in the Kurram Valley, just east of the Afghan border, was *Oe. pleschanka*. WHISTLER further presumed that "*Saxicola morio*", which WARDLAW-RAMSAY (1880: 55) found a common breeding bird in the Hariab Valley on the Afghan side of the border, also was in reality *pleschanka*. Later KOELZ collected a series of breeding *pleschanka* in northeastern and eastern Afghanistan (VAURIE 1949, Am. Mus. Nov. 1425: 14). My own observations show that it is a breeding bird also in central and western Afghanistan.

Nuristan: I found the Siberian Chat a scarce breeding bird in the upper parts of the Parun Valley. On passing Dewa on our march from Pashki to Stiewe on June 15, 1948, I saw a single male. The female collected at Stiewe on June 19 sat in a low bush in the bottom of the valley. The ovary contained only small follicles, the oviduct was rather enlarged but far from its maximum stage. On the 23rd and 24th I saw 3 other males in the main

valley and up a side valley to well over an altitude of 2800 m. In a male collected June 24 at Stiewe the testes were near the maximum stage and the *vesiculae seminales* were much enlarged. The juvenile specimen from July 25 I collected above Pashki at an altitude of 3600 m. on a stony mountain slope over the tree limit. A second bird disappeared. *Oe. pleschanka* was the only *Oenanthe* I ever saw in Nuristan during the breeding season.

Badakhshan: Having crossed the Hindukush over the Weran Kotal to Badakhshan I did not find this chat again until down below Parwara in the Kokcha Valley at an altitude of about 2000 m. From there and down to Faizabad and back the Warduj Valley up to Zebak at 2400 m. I saw it at several localities July 5–14. In this area it occurred together with the more numerous *Oe. "opistholeuca"* (and a few of the colour phase "*picata*"), and I was unable to find any difference in their habitats which for both species are most typically desolate, stony stretches with scattered boulders and more seldom fallow fields at the border of small cultivated areas.

Southeastern Afghanistan: May 23–26 I saw a few in the Gardez area, namely at an altitude of about 2600–2800 m. in the valley running south from the Tera Kotal, and north of the Saroti Kotal. The pair collected on May 23 had a nest, with 6 nearly fresh eggs, in a small cavity in the side wall of a gully (drain). The outside of the nest was loosely built of coarse plant stems, the inside of very fine ones. In the middle of June I saw several between 2300 and 2800 m. in the Maidan Valley, east of the Unai Kotal. Here it again occurred together with the two colour phases "*opistholeuca*" and "*picata*" of *Oe. picata*. West of the Unai Kotal I only saw the male collected at Panjao.

Western Afghanistan: On July 6 I collected a juvenile female at an altitude of 1560 m. near the Ardewan Kotal north of Herat. All the other black-and-white chats which I observed and collected in the Hari Rud area were *Oe. picata* (phase "*picata*").

Northern Afghanistan: On July 26 I saw a few on the most desolate stretches between Bala Murghab and Maimana and on August 4 around the pass east of Haibak.

In the spring of 1949 I observed the migration in Seistan. The first, a male, appeared on February 27, the next on March 4, a few the 14th but not until the 29th did it become more numerous and then also females appeared. The next day the passage culminated and during the rest of our stay there, until April 18, we saw only very few. In the autumn the passage migration at Bamian was very weak, in fact I only saw the birds collected.

(264). *Oenanthe picata* (Blyth) – Pied Chat*Males of colour phase opistholeuca*

Gusalek, Nuristan							
24. iii.	48.	♂	3×2	we. 21	wi. 86	tl. 62	tr. 24 subad.
Iskan, Badakhshan							
6. vii.	48.	♂	8×4	— 21	— 93	— 64	— 25
		♂	8×6	— 22	— 90	— 62	— 25 subad.
		♂	7×4	— 24	— 87	— 60	— 25 subad.
		♂	8×5	— 22	— 90	— 64	— 24 subad.
Ghorband, Central Afghanistan							
7. vi.	49.	♂	7×4	— 22	— 94	— 65	— 24 subad.
Maidan, E Afghanistan							
9. vi.	49.	♂	9×5	— 21	— 93	— 68	— 23
19. vi.	49.	♂	7×4	— —	— —	— —	— —
		♂	7×4	— 22	— 92	— 63	— 24 subad.
		♂	9×6	— —	— —	— —	— —
		♂	8×5	— 22	— 91	— 66	— 23 subad.
		♂	8×4	— 22	— 93	— 62	— 25 subad.
		♂	8×5	— 24	— 94	— 68	— 25
28 km. south of Qala Nau, NW Afghanistan							
22. vii.	49.	♂	2×1	— 22	— —	— 69	— 25
Tashkurghan, N Afghanistan							
1. viii.	49.	♂	1×1	— 25	— —	— 67	— 24
<i>Males of colour phase picata</i>							
Estuary of Farah Rud, Seistan							
4. iii.	49.	♂	4×3	— —	— 93	— 66	— 24
26. iii.	49.	♂	3×2	— 22	— 90	— 63	— 25
Baqrabad, Seistan							
11. iii.	49.	♂	3×2	— 23	— 91	— 64	— 25
15. iii.	49.	♂	3×2	— 22	— 94	— 68	— 24
Faizabad, Seistan							
20. iii.	49.	♂	4×2	— 20	— 89	— 60	— 25 subad.
		♂	3×2	— 23	— 90	— 61	— 24 subad.
		♂	5×3	— 22	— 94	— 67	— 25
22. iii.	49.	♂	4×2	— 20	— 94	— 63	— 24
23. iii.	49.	♂	5×3	— 21	— 90	— 65	— 24 subad.
Logar Valley, E Afghanistan							
23. v.	49.	♂	8×6	— 21	— 93	— 66	— 23
Maidan, E Afghanistan							
19. vi.	49.	♂	9×5	— 21	— 94	— 67	— 24
		♂	8×5	— 23	— 92	— —	— 24 subad.
Ardewan Kotal, W Afghanistan							
6. vii.	49.	♂	2×1	— 22	— 94	— 67	— 24
		♂	$1\frac{1}{2} \times 1\frac{1}{2}$	— 23	— —	— —	— — juv.
		♂	$1\frac{1}{2} \times 1\frac{1}{2}$	— 23	— —	— —	— — juv.

Obesh, W Afghanistan

11. vii. 49.	o		we. 23	wi. 93	tl. 63	tr. 25	male
13. vii. 49.	♂	3×2	— 23	— 94	— —	— 24	
15. vii. 49.	♂	1/2×1/2	— 23	— 92	— 65	— 24	subad.

23 km. east of Qala Nau, N Afghanistan

24. vii. 49.	♂	2×1	— 24	— —	— 67	— 25	
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Haibak, N Afghanistan

2. viii. 49.	♂	1×1	— 23	— 93	— 65	— 24	
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Males of colour phase capistrata

Gusalek, Nuristan

26. ii. 48.	♂	1×1	— 25	— 93	— 65	— 24	subad.
24. iii. 48.	♂	3×2	— 22	— 89	— 60	— 24	subad.

Qala Nau, NW Afghanistan

24. vii. 49.	♂	2×1	— 25	— —	— 68	— 24	
	♂	2×1	— 24	— 93	— 70	— 24	

Maimana, NW Afghanistan

27. vii. 49.	♂	2×1	— 23	— —	— 66	— 24	
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Tashkurghan, N Afghanistan

1. viii. 49.	♂	2×1	— 25	— —	— 67	— 25	
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Haibak, N Afghanistan

2. viii. 49.	♂	1 1/2×1	— 21	— —	— 66	— 25	
	♂	2×1	— 25	— —	— 66	— 25	
	♂	2×1	— 24	— —	— 65	— 24	

Paigah Kotal, N Afghanistan

4. viii. 49.	♂	1×1/2	— 21	— 91	— 63	— 24	subad.
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Darra-i-Shikari, Central Afghanistan

16. ix. 49.	♂	1×1/2	— 21	— 91	— 66	— 22	subad.
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Females of type B (cf. opistholeuca)

Faizabad, Badakhshan

10. vii. 48.	♀	8×4	— 21	— 87	— 64	— 24	
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Maidan, E Afghanistan

9. vi. 49.	♀	3	— 22	— 90	— 60	— 24	
19. vi. 49.	♀	5	— 21	— 89	— 64	— 24	
	♀	6×4	— 18	— 88	— 60	— 24	

Bamian, Central Afghanistan

21. ix. 49.	♀	3×2	— 20	— 87	— 60	— 23	
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Females of type A (cf. picata)

Faizabad, Seistan

20. iii. 49.	♀	8×5	— 21	— 86	— 60	— 24	
25. iii. 49.	♀	5×3	— 19	— 88	— 63	— 24	

Estuary of Farah Rud, Seistan

26. iii. 49.	♀	8×4	— 23	— 89	— 63	— 24	
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Obesh, W Afghanistan

15. vii. 49.	♀	4×2	— 20	— 87	— 60	— 22	juv.
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East of Qala Nau, NW Afghanistan

24. vii. 49. ♀ 3×2 we. 20 wi. — tl. 60 tr. 23

Females of type C (cf. capistrata)

Gusalek, Nuristan

19. iii. 48. ♀ 5×3 — 22 — 88 — 61 — 24

21. iii. 48. ♀ 7×5 — 22 — 91 — 65 — 24

Darra-i-Shikari, Central Afghanistan

4. vi. 49. ♀ 7×4 — 23 — 93 — 63 — 25

Oe. capistrata, *Oe. picata*, and *Oe. opistholeuca* are regarded by most of the modern authors as colour phases of a single species, *Oe. picata*. For discussion of this question see especially TICEHURST (1922 and 1927), STRESEMANN (1925), GROTE (1942), VAURIE (1949), and MAYR & STRESEMANN (1950). Unfortunately I was never stationed in a region where two of the phases occurred together but I passed through several such regions, and I think that my observations support the polymorphic point of view, although I collected several intermediates which show that modifiers are more common than supposed by MAYR & STRESEMANN.

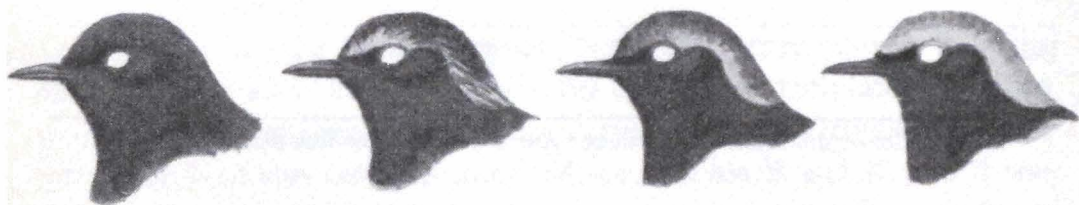


Fig. 27. *Oenanthe picata*. Left the colour phase "*picata*"; right "*capistrata*"; in the middle two intermediates (No. 2430: Haibak, N. Afghanistan, 2. viii. 49. — No. 2455: Paigah Kotal, Haibak, N. Afghanistan 4. viii. 49).

Intermediate males: In the *picata* male from July 24 the black throat patch extends a little down on the breast, and the caudal demarcation is not sharp as usually in *picata*. There is besides an increased amount of melanin in the feathers of the abdomen. Both these deviations from the normal indicate a variation in the direction of *opistholeuca*. This specimen was taken in northwestern Afghanistan between Qala Nau and Bala Murghab where I also collected *capistrata*, but did not observe *opistholeuca* which does, however, occur just southwest of Qala Nau.

I have five specimens in my collection of 31 males which show various intermediate stages between *picata* and *capistrata*. The heads of two of these are shown in figure 27 together with the pure types. In a male from March 4, a migrant taken in Seistan, there are a few white feathers, as an indication of a supercilium. In the "*picata*" male from Haibak (see figure 27)

there are many more white or partly white feathers, all within the cap area of *capistrata*. In three specimens from Haibak, Qala Nau and Paigah Kotal of this last phase there is an increasing amount of melanin in the cap feathers, strongest developed in the specimen from Paigah Kotal (see figure 27). One of the other intermediate specimens was taken in the same area as the above mentioned *picata* male from July 24, which was deviating in direction of *opistholeuca*.

	Type A ("picata")	Type B ("opistholeuca")	Type C ("capistrata")
Upper side of head and mantle	greyish brown	sooty black	earthly
Throat	dull black	sooty black	pale earthly
Breast	white with a pale earthly tinge	sooty black	pale earthly with no sharp contrast against the white belly
Belly	white	sooty black ± white	white

Table 1. Colour differences in the three types of female *Oenanthe picata*.

The series of *opistholeuca* males is very uniform. As to the white colour of the under parts it is restricted to not much more than the under tail coverts, only in a specimen from Gusalek and in one from Iskan does it extend to the lower belly.

Characters of the females: The colour variation in the females is very great. I find, however, three main types which I call A (cf. *picata*), B (cf. *opistholeuca*), and C (cf. *capistrata*). A description is given in table 1 and the types and two intermediate specimens are depicted in the plate. These three types are not quite comparable to the colour phases of the males because intermediate specimens seem much more common than in males, and the geographical dominance of the three types does not exactly correspond to the dominances of the three colour phases of the male. VAURIE, for instance, found a very high degree of individual variation present in females from eastern Iran, where all males belong to the phase *picata*. In the males further, the known intermediate specimens can be arranged between *capistrata* and *picata* or between *picata* and *opistholeuca*,

but not between *capistrata* and *opistholeuca*, whereas in the females there seems to be one chain of intermediates with a uniform decrease of melanin from type B (*opistholeuca*) to type C (*capistrata*), and another one from type B (*opistholeuca*) to type A (*picata*) in which the decrease of melanin on the throat lags behind the decrease in the rest of the plumage.

There can be no doubt that the variation among the females is too pronounced to be classified as mere individual variation; a comparison with the polymorphism found in the males seems more reasonable although the frequency of intermediates is even higher than in the males. As to the geographical distribution of the three types and their relation to the three types of males little is known so far, but I may emphasize that all my specimens of type A were collected in western, and all three of type C in eastern Afghanistan.

Of the females listed as type A the three specimens from Seistan are typical of this colour phase, whereas the breeding bird from east of Qala Nau in fresh moulted plumage shows no distinct colour contrast between throat and breast which both are brownish with a faint pinkish tint on the lower parts. This female was taken in an area where all three colour phases of males occurred.

In the list of type B (*opistholeuca*) two of the three females from the Maidan Valley are alike, and one of them depicted on the plate as B. They were both together with *opistholeuca* males. The third female (no. 1806, see plate) from this valley is intermediate between B and A, and it was paired with a typical *opistholeuca* male which was also collected. *Picata* males occurred also in the valley but they were less numerous than *opistholeuca*. – A female collected on September 21 (no. 2733, see plate), a passage migrant from Bamian, is intermediate between type B and type C. Still nearer to type C (*capistrata*) is the breeding female from Faizabad in Badakhshan. In that area I saw only *opistholeuca* males but KOELZ collected *capistrata* not far west of Faizabad (VAURIE 1949, Am. Mus. Nov. 1425: 44).

Plumage and moult: The birds at the end of their first year can still be recognized as they retain remiges of the juvenile plumage. Some of the wing coverts are involved in the post juvenile moult. In *opistholeuca* some of the first-year birds are just as dark as the older birds, others are more sooty black.

With exception of a female from July 10, all the adult birds from this month and the beginning of August are moulting. In one male from August 2 the moult is nearly completed. A male from July 15 and one from August 4 are moulting the juvenile plumage.

Observations during the breeding season. Nuristan: I found no form of *picata* during the breeding season. When we crossed Hindukush over the Weran Kotal to Badakhshan and travelled down the Kokcha Valley, *opistholeuca* appeared below Parwara at an altitude of about 2200 m. It was rather common all the way to Jurm (1400 m.), especially on the last march from Iskan (1540 m.) on which I counted 19 males. On this day I saw also 4 *picata* males, the only ones I observed in Badakhshan. *Opistholeuca* also occurred at Faizabad and up the Warduj Valley to about Zebak (2400 m.). Along all the route in Badakhshan I counted 67 *opistholeuca* and 4 *picata* between July 5–14, 1948, giving a percentage of 94 for *opistholeuca* as against 6 for *picata*. The phase *capistrata* I did not observe in this region unless some of the 24 males with white crown and black mantle, that I identified in the field as *pleschanka* on this trip, may have been *capistrata*. I think, however, they were not. The habitat of *opistholeuca* in this area was mostly desolate, stony and boulder strewn slopes, but it also occurred at the border of cultivated fields.

Central Afghanistan: MEINERTZHAGEN (Ibis 1938: 685) says: "In the Ghorband and Bamian Valleys *picata* was dominant, and *capistrata* in the minority. *Opistholeuca* was not seen north of Kabul", but I think his observations may concern mostly migrating birds, because when I passed through the Ghorband Valley on June 1–2 and 7, August 7, and September 5, 1949, I always found *opistholeuca* rather numerous and never saw a *picata*. On the other hand a single *capistrata* occurred on June 2 at an altitude of 2700 m., just east of the Shibar Kotal. West of this pass and through Darra-i-Shikari to Doab *capistrata* was the only form I observed with certainty.

Eastern Afghanistan: I made a trip from Kabul to Gardez and Saroti Kotal in May 1949 on which I saw two males of the colour phase *picata*. It was in the Logar Valley, 54 km. from Kabul. When on June 9 we drove up through the rather broad and partly cultivated Maidan Valley, which leads to the Unai Kotal from the east, we saw both *picata* and *opistholeuca*. On the return journey on the 19th I therefore looked a little closer at the chats of this valley. First I made a four hours' excursion in the mountains around Sar-i-Chashma (2600 m.) and on the drive down the valley we stopped and collected each time we saw a black-and-white chat. The results may be summarized as follows. The habitat preference of both *picata* and *opistholeuca* seemed to be the same. They occurred all the way up the valley to well over 2600 m., and they were found in the cultivated areas in the bottom of the valley as well as on the surrounding desolate and rocky slopes. The nine males collected were pure *picata* or *opistholeuca* and also among the

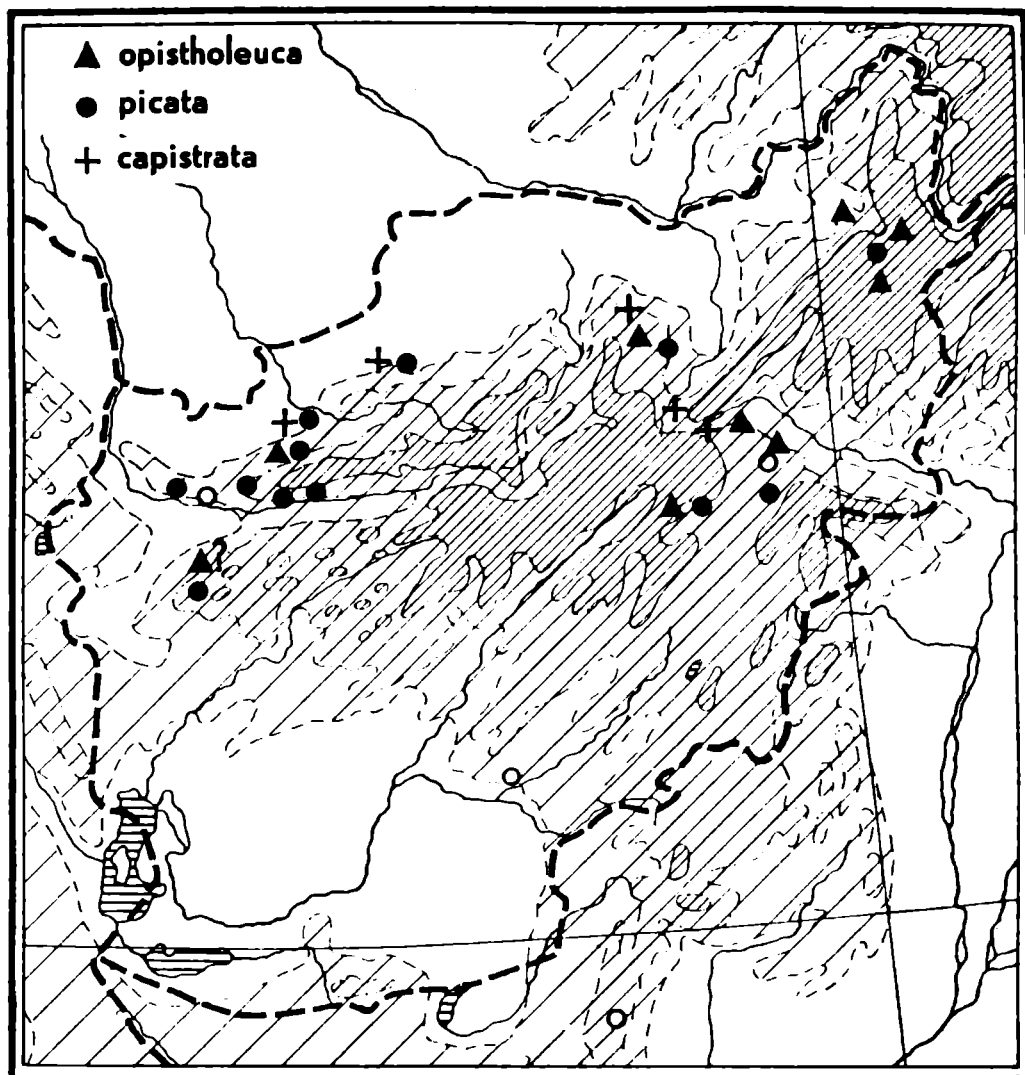


Fig. 28. *Oenanthe picata*. Distribution of the three colour phases of males observed during the breeding season.

specimens only observed in the field I was not able to establish any intermediate individuals. Of the three females collected, however, one was intermediate between the types A and B. It was paired with the typical *opistholeuca* male. The two other females were of type B and had also typical *opistholeuca* males. One of them had a nest with 5 young. Together with the two *opistholeuca* males collected was a female which also was collected, but has been lost. According to my note in my diary this was not of type B (*opistholeuca*) but seems to have been still nearer to type A (*picata*) as is the other intermediate female from this valley.

In the Maidan Valley we counted in all 7 *opistholeuca* and 2 *picata* males, which of course is too small a sample to give the real proportion between

the two phases. – West of the pass, between that and Panjao, we never observed the species.

Western Afghanistan: I did not find the species around Shin Dand, but when on July 1st we drove from this village to Herat and entered some foothills 25 km. north of Shin Dand, the phase *picata* appeared to be rather common. In a single case I believe I saw an *opistholeuca* too. – In the broad main Hari Rud Valley from Obek in east to Islam Qala in west I saw none in July. In the side valley leading to the Ardewan Kotal, however, there were several *picata* on the 6th. During the stay at Obek, July 11–17, I saw 3–4 pairs in the side valley at altitudes between 1600 and 2100 m. Finally I saw several on the slopes along the road from Obek to about 30 km. west of Kwaja Chisht, and some in the valley south of the Sauzak Kotal on July 22. In the Hari Rud region east and west of Herat *picata* was the only phase observed.

Northern Afghanistan: When on July 22 we passed through the Sauzak Kotal into northern Afghanistan we found *picata*, and also *opistholeuca*, in a narrow valley southwest of Qala Nau. On the 24th the species was rather common on stony slopes before we reached a southern tributary of Murghab, and in the rocky canyon of this tributary down to Dahan-i-Kushak. Here we collected *picata* and *opistholeuca* of which two specimens, as stated above, were more or less intermediates. On the 27th in a rocky canyon near Maimana I saw two or three *capistrata* and a single *picata*. From Maimana through Andkhui to Mazar-i-Sharif I did not observe the species but when we entered the foothills at Tashkurgan it appeared again, and I observed all three phases from there over Haibak to Paigah Kotal. My observations are too few to give the ratio between them, *capistrata*, however, was the dominating form.

In figure 28 is a key map of my observations as to the distribution of the three phases in Afghanistan.

Breeding: In the *opistholeuca* males from June and the beginning of July the testes were at or near their maximum size. In the migrating *picata* from Seistan they were of medium size, in those from May and June about maximum size, and in all from July they were already highly reduced. The female *capistrata* from June 4 had completed laying, whereas an *opistholeuca* female from June 19 was about to lay. A pair from the same date had 5 not fully fledged young which were fed by both parents. The nest was placed under a flat stone on a rocky slope. On this date also I saw a *picata* male perform its courtship flight. It perched on projecting rocks from which it started short flights out over the valley. It flew with whirling wings and the tail spread and a little dropped. At the same time it uttered a characteristic wheatear song.

Observations outside the breeding season: During our stay on the lower Farah Rud in Seistan in the early spring of 1949 we observed the passage migration, which consisted only of birds of the *picata* phase. The first male appeared on March 4, the next the 11th, but it was not until the 20th that it arrived in any number. On this last date we saw also the first females. In the following days only a few passed through and on the last day of the month we saw the last bird in Seistan. On April 3-4 we found a few along the road Farah-Girishk.

On December 14, 1947, and again on February 19-20, 1948, I saw some *picata* along the Kabul River between Jalalabad and Sarobi. In Nuristan, where I found none during the breeding season, a very slight passage migration was noticed from the end of February through March but all my observations are given with the specimens of *capistrata* and *opistholeuca* in the lists.

In the Bamian area I observed hardly any migration between September 6 and October 18. The *opistholeuca* female collected on September 21 and a similar seen on October 9 were the only ones observed. When on October 18th we returned through Ghorband all *opistholeuca* there seemed to have left the valley.

(265). *Oenanthe finschii barnesi* (Oates) – Barne's Chat

Saxicola barnesi Oates, Fauna Brit. Ind. Birds 2: 75 (1890 – restricted Kandahar)

Kabul

30. v. 49. ♂ 7×4 we. 24 wi. 91 tl. 63 tr. 24

Qala Nau, N Afghanistan

24. vii. 49. ♂ 2×1 — 27 — — — — 25
 ♂ 1½×1 — 26 — — — — 25

Maimana, N Afghanistan

28. vii. 49. ♂ 1×1 — 26 — 89 — 60 — 26 subad.
 o — 25 — — — — 25 male

Haibak, N Afghanistan

2. viii. 49. ♂ 1×1 — 26 — 90 — 61 — 25 juv.

The three adult males from the end of July were heavily moulting. In the two young males the post juvenile moult had started.

VAURIE maintains the separation of an eastern and a western race. My scanty material consists mostly of moulting birds and throws no light on this question.

I observed Barne's Chat only at the localities given in the list. The typical habitat was desolate, narrow valleys. It was nowhere common. The male from May 30 was the only one we saw at the Tangighori Gorge east of Kabul. We found a second male in the Kabul area on September 5 in the Khairkhana Kotal.

(266). *Oenanthe deserti* – Desert Chata. *Oenanthe deserti atrogularis* (Blyth)b. *Oenanthe deserti oreophila* Oberholsera. *Atrogularis males*

Baqrabad, Seistan

28. ii. 49. we. — wi. 93 white area¹⁾ ++ subad.

Estuary of Farah Rud, Seistan

4. iii. 49. — — — 94 — + adult

Baqrabad, Seistan

15. iii. 49. — 22 — 96 — + adult

18. iii. 49. — 20 — 92 — + adult

Faizabad, Seistan

20. iii. 49. — 22 — 93 — + subad.

— 21 — 90 — + adult

— 20 — 96 — + adult

— 20 — 98 — + adult

— 19 — 91 — + subad.

— 17 — 92 — + subad.

— 18 — 89 — + adult

— 20 — 92 — + subad.

22. iii. 49. — 19 — 91 — + adult

— 19 — 94 — + subad.

— 20 — 94 — + subad.

23. iii. 49. — 17 — 95 — + adult

— 17 — 96 — + adult

Estuary of Farah Rud, Seistan

24. iii. 49. — 17 — 90 — + adult

— 19 — 94 — + subad.

— ? — 96 — + subad.

Bamian, Central Afghanistan

1. x. 49. — 20 — 94 — + adult

Darra-i-Shahidan, Central Afghanistan

13. x. 49. — 21 — 99 — + adult

b. *Oreophila males*

Baqrabad, Seistan

28. ii. 49. — ? — 96 — + + + subad.

Faizabad, Seistan

27. iii. 49. — 19 — 97 — + + + adult

Estuary of Farah Rud, Seistan

30. iii. 49. — 20 — 97 — + + adult

¹⁾ + : the white area on the inner webs of the wing feathers does not reach the quill on the second primary, ++ : it reaches it, +++ : it reaches it at great extent.

Panjao, C. Afghanistan

14. vi. 49. we. 19 wi. 94 white area + + + adult

Darra-i-Shahidan, Central Afghanistan

28. ix. 49. — 23 — 102 — + + + adult

— 19 — 103 — + + + adult

— 20 — 103 — + adult

— 27 — 102 — + + + adult

6. x. 49. — 20 — 101 — + + + adult

— 34 — 102 — + + + adult

— 29 — 99 — + + adult

— 22 — 101 — + + + adult

13. x. 49. — 22 — 101 — + adult

— 18 — 98 — + + adult

16. x. 49. — 20 — 102 — + + + adult

Atrogularis and oreophila females

Baqrabad, Seistan

12. iii. 49. 5×3 we. 19 wi. 9215. iii. 49. 6×4 — 18 — 89

Faizabad, Seistan

22. iii. 49. 4×2 — 16 — 9123. iii. 49. 6×3 — 15 — 89

Baqrabad, Seistan

24. iii. 49. $3 \times 1\frac{1}{2}$ — 19 — 93

Estuary of Farah Rud, Seistan

24. iii. 49. 3×2 — 16 — 90

Faizabad, Seistan

25. iii. 49. 5×3 — 17 — 9127. iii. 49. 4×3 — ? — 95

Darra-i-Shahidan, Central Afghanistan

28. ix. 49. — 17 — 90

13. x. 49. $1\frac{1}{2} \times 1$ — 17 — 95

None of the birds were moulting. The testes measured in the birds from February and March from $1 \times 1\frac{1}{2}$ to 3×2 , in those from September and October about $1 \times 1\frac{1}{2}$, and in the breeding bird from June 6×4 .

According to VAURIE (1949, Am. Mus. Nov. 1425: 36) it is possible to recognize two races of the Desert Chat in western Asia. In the northern and western subspecies, *atrogularis*, the white area on the inner webs of the wing feathers does not reach the quill on the second primary, and the wing is short (16 ♂♂: 91–96 (94,0)). It is distributed from Mongolia over Turkestan to Iran and southeastern Caucasus. In the other subspecies, *oreophila*, the white area reaches the quill of the second primary, and the wing is longer (11 ♂♂: 97–105 (100,6)). It is distributed at high altitudes in Pamir,

Sinkiang, Tibet and Kashmir. VAURIE further found that the population of Afghanistan appears to be intermediate through a combination of these characters, namely with the long wing of *oreophila* and the small white area of *atrogularis*.

The only male I collected in Afghanistan during the breeding season, Panjao, June 14, is also intermediate but it has the short wing of *atrogularis* and the large white area of *oreophila*. As seen in the lists above the males collected outside of the breeding season represent clearly both subspecies, but some of the specimens are intermediate and could be placed in either of the two groups. Dr. VAURIE has kindly examined and compared a sample of my specimens and verified the identifications. It does not seem possible to separate the females of the two races.

KOELZ was the first to collect the Desert Chat in Afghanistan during the breeding season (VAURIE l. c.). On two occasions I presumably found it on its breeding grounds. The first time was on June 6 at an altitude of about 3100 m. in a valley east of Cham Kotal between Bamian and Band-i-Amir. Here several pairs appeared during and after a snow-squall, which seemed to force the chats down in the valley from the surrounding slopes and ridges. Further south in Hazarajat, above Panjao, I collected a male on June 14 which stayed on a stony area on a ridge at an altitude of 3000 m. It was the only one I saw there.

On the lower Farah Rud in Seistan we occasionally saw a few male Desert Chats during the first part of our stay (from February 25). These were presumably winter visitors in the region, but on March 20 the migration had started for we saw now many more birds than usual in the fields, and in the steppe around Baqrabad. The next day most of them had disappeared. On the 22nd their number increased again, and we saw the first female. The following days a varying number of males and females appeared but the height of the migration seemed to have passed and at the end of the month the migration was over. As shown in the list of specimens the race *atrogularis* was by far the most numerous.

The autumn migration as observed in the Bamian region was a little puzzling. During the first period from September 6–27 I saw none on excursions around Bamian, to Darra-i-Shikari and to Aq Ribat, but when on the 28th we drove from Bamian to Band-i-Amir we found it rather numerous in the high valleys above an altitude of about 3100 m. On subsequent visits to this area on October 6 and 13 I now found the chats down to 2700 m. at localities where I had seen none on the first excursion. On all three visits only very few females were seen, on October 6 not a single one, and all the males collected were adults. As I observed the species in that

area during the breeding season, and now found it rather numerous and constant during three excursions between September 28 and October 13, it is possible that the birds still present represented the males that had bred locally, whereas most of the adult females and the young birds had already left. If that was the case, the breeding population at high altitudes in Afghanistan is much nearer to *oreophila* than the scanty material previously at hand seemed to indicate. All the birds from this area had the wing measurements of *oreophila* and in 7 out of 10 specimens the white area was large as in this subspecies.

Down in the Bamian Valley itself I saw only the birds collected on October 6, 13 and 16, and one or two more on the 13th.

The extreme variation as to the amount of fat (and the weight) may indicate varying states of preparation for the migration. Two of the males from the Bamian Valley collected October 13 and 16, 1949, had practically no fat, they may therefore have been local birds from the surrounding mountains and not passage migrants.

(267). *Oenanthe isabellina* (Temminck and Laugier) – Isabelline Chat

Synonym: *Oenanthe isabellina kargasi* Koelz, Proc. Biol. Soc. Wash. 52: 66 (1939 — Kargasi Pass)

Baqrabad, Seistan

25. ii. 49. ♂ 2×1 we. — wi. 98 tl. 56

Faizabad, Seistan

31. iii. 49. ♂ 3×2 — 28 — 98 — 55

18. iv. 49. ♀ 5×3 — 29 — 99 — 57

Mukur, E Afghanistan

8. v. 49. ♂ 11×7 — 26 — 97 — 58

♀ 2 — 30 — 89 — 51

Gardez, E Afghanistan

24. v. 49. ♂ 12×7 — 27 — 96 — 61

♀ 3×2 — 23 — — — — juv.

Diwal Kol, Central Afghanistan

11. vi. 49. ♀ 2×1 — 27 — — — — juv.

18. vi. 49. ♀ 2×1 — 29 — — — — juv.

Herat, W Afghanistan

8. vii. 49. ♀ 2×1 — 26 — 95 — 54 subad.

Bala Murghab, NW Afghanistan

26. vii. 49. ♂ 1½×1 — 34 — 100 — 59 subad.

♂ 1½×1 — 30 — 99 — 58

♂ 1½×1 — 31 — 97 — 57 subad.

Maimana, NW Afghanistan

28. vii. 49. ♂ 1×1 we. 29 wi. 97 tl. 57 subad.

Tashkurghan, N Afghanistan

1. viii. 49. ♂ 1½×1 — 29 — (97) — 58

Darra-i-Shahidan, Central Afghanistan

6. x. 49. o — 39 — 104 — 59 subad.

♀ 3×2 — 25 — 95 — 53

♀ — 39 — 97 — 53

The British committee on the nomenclature of birds has shown that TEMMINCK and LAUGIER are the authors of *Oe. isabellina* (Ibis 1949: 511). VAURIE (1949, Am. Mus. Nov. 1425: 39) has examined the material on which *kargasi* was based and concluded that *kargasi* is not valid.

The adult and juvenile males from the end of July and August 1 have nearly completed their post nuptial and post juvenile moults, only a few body feathers are still growing. It is well known that there is a great colour difference between birds in fresh and worn plumage, but it is less well known that this change occurs rapidly. The birds from July in fresh plumage have a greyish red tinge which has already fully disappeared in the October specimens which are greyish brown as birds from the spring.

Southeastern Afghanistan: I found the Desert Chat most common during the breeding season in the broad valleys of eastern and southeastern Afghanistan: May 7–10 in the Tarnak Valley northeast of Kandahar, around Mukur and Ab-i-Istada and farther on to Kabul; and along the road from Kabul to Kandahar I found it to be numerous again when we returned on June 24–25. — On a trip from Kabul to Gardez on May 23–26 I did not see it through the comparatively fertile Logar Valley until we came into more desolate country between Hisarak and Tera Kotal. It was not present in the pass, but was met again south of it and farther on to Gardez and Usman Khel. — Around Kabul we saw it in the last part of May and in the beginning of June, and also along the road to Maidan, but not in this fertile valley itself. West of the Unai Kotal it occurred in the most flat areas at an altitude of about 3000 m. At Panjao I never saw it, presumably because the country was too mountainous.

Western Afghanistan: I saw a few on May 5 between the foothills and Dilaram, but I did not observe it here when we passed the same way again on June 27. I never saw it during the last days of the month in the flat country around Shin Dand. It occurred again, however, and rather numerous along the road through the desolate hills between this village and Herat. In July we found it rather uncommon in the main Hari Rud Valley between Islam Qala and Obek and occurring only in the most desolate areas.

Northern Afghanistan: We saw a single bird on July 22 between Sauzak Kotal and Qala Nau, and a few in desolate valleys in the hilly country between Qala Nau, Bala Murghab, Maimana, and Andkhui on the 24th–28th. In the very dry steppe around this last town I saw only 2–3 birds and none on the drive from there to Mazar-i-Sharif. East of Mazar a few occurred both down in the steppe and on flat areas among the foothills south of Tashkurghan and in valleys on both sides of the Paigah Kotal on August 4.

I found it as shown above at all altitudes up to 3000 m. It avoids mountainous country, however, and requires large flat and desolate areas, and only exceptionally does it occur at the border of cultivated fields.

During courtship flight it ascends 10–15 m. aslope with whirling wings, stops a moment, and then descends on stiff wings.

Outside the breeding season I saw very few birds. In Seistan the passage migration was very slight between February 25 and April 20, in fact I only observed with certainty the three specimens collected. In the autumn the main passage was presumably over when on September 6 we started our investigations at Bamian, for I saw only a few within a small, very desolate area at an altitude of about 2850 m. in the Shahidan Valley on October 5 and a single bird in the Shibar Kotal on the 18th.

(269). *Turdus merula intermedius* (Richmond) – Blackbird

Synonym: *Turdus merula brodkorbi* Koelz, Proc. Biol. Soc. Wash. 52: 67 (1939 — Farakar, Afghanistan)

Obeh, W Afghanistan

11. vii.	49.	♂	3 × 1	we. 102	wi. (131)
13. vii.	49.	♂		84	— 133 juv.
15. vii.	49.	♂	1½ × 1/3	93	— 132 juv.
17. vii.	49.	♂	4 × 2	99	— 136
15. vii.	49.	♀	8 × 4	89	— —
		♀	3 × 1	85	— 128 juv.
		♀	2 × 1	88	— 129 juv.
17. vii.	49.	♀	6 × 4	92	— 129

Kwaja Chisht, W Afghanistan

19. vii.	49.	♂	2 × 1	94	— 130 juv.
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The young specimens are in post juvenile moult. The four adults are very badly worn and moulting and therefore of little value for me to comment on the validity of the subspecies *brodkorbi*, which VAURIE (1955, Am. Mus. Nov. 1733: 5) states is a synonym of *intermedius*.

The Blackbird is very rare in Afghanistan where I found it only at two localities. At Obeh a few family parties were present in the side valley at

altitudes between 1800 and 2300 m., and at Kwaja Chisht there were one or two families. I never saw or heard the Blackbird in Nuristan, where the subspecies *maximus* might have been expected.

(270). *Turdus ruficollis atrogularis* Jarocki – Black-throated Thrush

Wama, Nuristan

11. iv. 48.	♂	4×3	we. 78	wi. 128
4. iv. 48.	♀	9×4	— 96	— 130
11. iv. 48.	♀	7×4	— 83	— 130

Bamian, Central Afghanistan

21. ix. 49.	♂	2½×2	— 83	— 135
26. ix. 49.	♀		— 72	— 130

The Black-throated Thrush is a passage migrant and winter visitor to Afghanistan. In the spring of 1948 there was only a very slight migration through the Pech-Parun Valley in Nuristan. I saw two birds at Wama on April 4 and half a dozen on the 11th. – On February 22, 1949, there were a few in the hotel garden at Farah and in the autumn of the same year single birds appeared at Bamian on September 21 and 26, and October 12 and 15; on October 17 a few were seen.

(271). *Turdus viscivorus bonapartei* Cabanis – Missel Thrush

Wama, Nuristan

14. iv. 48.	♂	12×7	we. 107	wi. 170
3. iv. 48.	♀	2½	— 118	— 161
14. iv. 48.	♀	5	— 110	— 168

Pashki, Nuristan

9. vi. 48.	♀	4×1½	— 100	— 158 juv.
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Sauzak, Kotal, W Afghanistan

22. vii. 49.	♂	5×3	— 125	— (168)
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I have not been able to compare these specimens with topotypical *bonapartei* but their grey upper parts and large wing measurements suggest they are typical representatives of this race.

The Missel Thrush is a rather scarce breeding bird in Afghanistan where I found it only in Nuristan and in the province of Herat. In April 1948 I saw a few regularly above Wama when I visited some small fields at an altitude of about 1600 m. where they were singing from trees at the border of the cultivated area. In the female from Wama collected on April 3 the follicles were somewhat enlarged; in the female collected on April 14 the maximum growth of the follicle was about to start and the oviduct was near its maximum size. – At Pashki I saw the Missel Thrush only a few

times in May and June. Here it occurred in coniferous forests of various kind from the bottom of the valley up to the tree limit at 3100 m., where it was most common. A fully fledged young was collected at 2600 m. on June 9 and one on July 25.

In the province of Herat I saw a few in low scrub in the middle of July at an altitude of about 2700 m. in the side valley at Obeh, and on the 22nd we saw some in the *Juniperus* scrub at 2500 m. in the Sauzak Kotal.

(272). *Myiophonus caeruleus turcestanicus* Sarudny – Blue Whistling Thrush

Gusalek, Nuristan, 3.–17. iii. 48.

Weight ♂♂: 182, 184, 185, 187, 231

Wing ♂♂: 179, 180, 181, 183, 193

Wama, Nuristan, 3.–30. iv. 48.

Weight ♂♂: 180, 190, 196; ♀♀: 156, 211

Wing ♂♂: 185, 191, 194; ♀♀: 173, 180

Pashki, Nuristan, 10. v.–7. vi. 48.

Weight ♂♂: 176, 190, 200, 203; ♀: 162

Wing ♂♂: 181, 185, 188, 191; ♀: 168

Stiewe, Nuristan, 16.–22. vi. 48.

Weight ♂♂ ad.: 190; juv.: 159

Wing ♂: 189

Obeh, W Afghanistan, 11.–15. vii. 49.

Weight ♂♂ juv.: 184, 185, 187

Wing ♂♂ juv.: 182, 183, 183

Darra-i-Shikari, Central Afghanistan

4. vi. 49. ♂ 17×10 we. 172 wi. 182

I have not been able to compare this series with material of *turcestanicus* from Turkestan, Tianshan and Buchara which is said to be generally duller and with a longer wing than *temminckii* from Himalayas. Gladkov (Dementiev & Gladkov 6: 478) gives a wing length of 189–200 mm. for males of *turcestanicus* against 158–180 in *temminckii*. In 14 adult males in the series above the wing is 179–194 (185.9), which is a little short for *turcestanicus* although best in agreement with this subspecies.

In Nuristan the Whistling Thrush was, I think, the most common bird all the way along the Pech-Parun River between Gusalek (1000 m.) and the region above Stiewe (2600 m.). It lived usually on the rocks along the main river, but occurred also along the smaller tributaries and sometimes in cultivated fields, in scrub and trees, but never far from water. At Gusalek it was in pairs in March, the testes (from 3×2 to 4×3 mm.), however, were still far from their maximum size. When we returned on August 1

I found a nest with fully fledged young. The nest was built on a vertical rock wall facing north, 5–6 m. over the river. It contained at least 3 young, which two days later had left the nest. – At Wama the song was fully developed from the beginning of April. It consists of some very high-pitched, shrill and loud fluted notes which are usually the only part of the song that can be heard above the roar of the river. At this time the birds very often pursue each other, singing at the same time. During the pursuit the colour of the birds changes all the time from dark, nearly black, to shining cobalt blue according to the position of the bird to the light. In the males collected the testes were now at their maximum size (from 12×7 to 15×10 mm.), and a female from the 30th was laying. It had a ripe egg in the oviduct and an inspection of the ovary revealed two calyces and two large follicles with diameters of 17 and 14 mm. The full clutch would therefore have consisted of 4 eggs. On May 5 a pair had begun the building of a nest on a little shelf in a cavity among boulders in a small torrent. – At Pashki I found it up to an altitude of 2900 m. In the males collected at this locality between May 10 and June 7 the testes were at their maximum size and *vesiculae seminales* much enlarged. – At Stiewe I saw the parents carrying food about the middle of June, and in the last week of the month young were in evidence. When we returned to Stiewe I saw on July 22 an adult with a young as high up as at 3100 m. – In Badakhshan I only observed it in the Kokcha Valley at Kachari on July 3 and between Parwara and Azasaid on the 5th.

Outside Nuristan and Badakhshan I saw a few in Darra-i-Shikari on June 2 and 4, August 7, and September 16; and 3–4 pairs bred between 1800 and 2100 m. in the side valley at Obek, where they had fledged young by the middle of July.

During the winter I saw a single bird along the Kabul River east of Sarobi on February 19, 1948, and one on January 28, 1949, where the river enters the mountains east of Kabul. On a trip from Kabul to Kandahar on February 16–17, 1949, single birds were recorded at three localities.

In his review of the genus *Myiophoneus* DELACOUR (Auk 1942: 246) emphasises that the whistling thrushes by their general aspect, build and behaviour are true turdine birds. My impression of the bird confirms this view, but during the skinning I noticed some characteristic features which may be of some interest in a discussion of their systematic position. The skin is exceptionally thick and tough so one has to use much force to evert it over the big head, and this can be done without danger of tearing it. Further the hyoid horns are exceptionally long, and the plumage remarkably rich.

(273). *Enicurus scouleri* Vigors – Little Forktail

Gusalek, Nuristan

27. ii. 48.	♂	1×1	we. 26 (?)	wi. 76
29. ii. 48.	♂	1×1	— 16	— 79
	♀	5×3	— 17	— 74
	♀	5×2	— 15	— 75
5. iii. 48.	♀	4×2	— 13	— 72

I found the Little Forktail, which had not previously been recorded from Afghanistan, to be a scarce breeding bird in Nuristan and Badakhshan. At the end of February and the first days of March there were a few along the Pech River at Gusalek but after the 5th they all disappeared. On April 6 I saw a single one again at some waterfalls in a mountain stream above Wama at an elevation of 1700 m. At the same place there was a pair when I revisited the stream on the 13th, and a little higher up I found a second pair. The 26th only one bird appeared at each locality, the other presumably occupied by incubation or laying. Several times I saw the birds disappear behind waterfalls where it was impossible for me to get in to look for nests. During the stay at Wama, March 31–May 5, we had our camp at the bank of Pech, but down there we saw a pair only on the last day. Farther up the valley the only record is that of a single bird between Chetras and Pashki on July 29.

In Badakhshan I saw one in a canyon near Kachari (2300 m.) in the Kokcha Valley on July 3, which was the only record from north of the main ridge.

I never saw the Little Forktail away from the rivers where it always lived near waterfalls or in the most turbulent parts of the streams. Walking about on slippery and often submerged rocks it jerked the tail a little up and down and closed and spread it at the same time, the white apical spots of the outer tail feathers acting as a flashing signal. The strongly curved and very pointed claws are well adapted for its life on rocks, but its plumage is remarkably thin for a bird living so much in contact with ice cold water.

(274). *Enicurus maculatus maculatus* Vigors – Spotted Forktail

Gusalek, Nuristan

19. iii. 48.	♀	8×4	we. 37	wi. 102	tl. 140
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Atshenu, Nuristan

2. iv. 48.	♂	4×3	— 41	— 109	— 150
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Pashki, Nuristan

21. v. 48.	♀	1	— 38	— 109	— 140
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The Spotted Forktail is also a new record for Afghanistan, where it is a scarce breeding bird in Nuristan. In all I saw only three pairs at three different localities. The first one I found near Gusalek on March 18 in a little side valley with steep slopes and with a boulder-filled stream bed which at that time did not carry much water. – On April 9 I found the next pair in the lower Atshenu Valley, a side valley to Pech just below Wama. In the male collected here, as in the female from Gusalek, the gonads were still rather undeveloped. The third pair I found at an altitude of 2400 m. above Pashki in a small side valley with a diminutive stream. A bird observed on May 18 was carrying nesting material. In the female shot here the 21st the follicles did not exceed 1 mm. in diameter, but the oviduct was rather much enlarged. – When this forktail rises it utters a not very loud but penetrating: *tjeet*.

(275). *Turdoides caudatus huttoni* (Blyth) – Common Babler

Malacocercus Huttoni Blyth, Jour. Asiatic. Soc. 16: 476 (1847 – Kandahar)

Estuary of Farah Rud, Seistan, 2.–26. iii. 49.

Weight ♂♂: 47, 48; ♀♀: 41, 44, 44

Wing ♂♂: 87, 88, 89; ♀♀: 85, 86, 88

Tail ♂♂: 112, 112, 125; ♀♀: 120, 122

Farah, SW Afghanistan

22. ii. 49. ♀ 7×5 wi. 85 tl. 113

♀ 7×3 — 85 — —

The two females from February 22, one male from March 9, and one of three females from March 26 are moulting some body feathers. The males had enlarged testes (from 11×5 to 13×7 mm.) which in one from March 24 were strongly injected. In one of the females from the 26th of the same month the sex organs were enlarged but still far from the maximum size.

The Common Babler occurs only in southern Afghanistan. On the lower Farah Rud in Seistan we found small parties of up to half a dozen birds at the end of February and throughout March in the tamarisk scrub in the estuary of the river. – In the hotel garden in Farah we saw a few small flocks during our visits in February and April and a party of 16–18 individuals on June 27. Finally, we heard it several times on May 4–5 along the Helmand at Lashkari-Bazar south of Girishk.

(276). *Garrulax lineatus gilgit* (Hartert) – Streaked Laughing Thrush

Gusalek, Nuristan, 2.–18. iii. 48.

Weight ♂♂: 40, 43, 46; ♀: 37

Wing ♂♂: 82, 84, 84, 84; ♀: 82

Wama, Nuristan, 6.–25. iv. 48.

Weight ♂♂: 38, 41, 42, 42, 43; ♀: 38

Wing ♂♂: 80, 80, 81, 82, 83; ♀: 79

Pashki, Nuristan, 20.–21. v. and 25. vii. 48.

Weight ♂♂ ad.: 38, 39; juv.: 41

Wing ♂♂ ad.: 81, 82; juv.: 82

The males and the female from April were moulting the body feathers. In an immature male, collected on July 25 at Pashki, the breast and the upper parts are distinctly browner than in adults.

The specimens above, all from Nuristan, differ from three females from Ziarat in Baluchistan (*ziaratensis*) by having narrower shaft streaks and darker brownish, not so yellowish, edges of the breast feathers. In these ways the Nuristan birds agree with three specimens from Gilgit (subspecies *gilgit*) in which, however, the feather edges of the upper parts are slightly paler grey. The Gilgit specimens were collected 1876–79 so this difference may be due to the age of the skins.

I found the Streaked Laughing Thrush only in the Pech-Parun Valley in Nuristan. The first arrivals were observed on March the first at Gusalek. During the first half of the month they appeared in small parties, and thereafter in pairs. – At Wama it was also rather common but higher up the valley it was seldom seen. As Pashki I observed a few pairs in May and June. At Stiewe I never saw it.

North of the main Hindukush range, in Badakhshan, I did not find it, but VAURIE (1954, Am. Mus. Nov. 1669: 7) has examined a series from this province, and he refers it to the Turkestan subspecies *bilkevitchi*.

I always found it in various thickets from which it was very difficult to drive it out. It has many different call-notes some of which I tried to write down in the following ways:

djü-djü and *djü-djü-djü* (almost whistling)

di-di-tüv

djüp, djüp

On March 18 I saw something of a courtship display. A bird flew by turns from a bush to a flat rock on which with half dropped wings and raised rump feathers, it performed a note which I was not able to express by writing it down. – The main breeding season falls presumably in May after the moult of the body feathers has been finished. In two males from May 20 and 21 the testes were injected and at their maximum size (8×5 and 9×5 mm.).

(277). *Garrulax variegatus nuristani* subsp. nov. –
Variegated Laughing Thrush

Pashki, Nuristan, 29. v.–6. vi. 48.

Weight ♂♂: 64, 65, 67; ♀♀: 63, 64

Wing ♂♂: 100, 103, 109; ♀♀: 100, 105

Stiewe, Nuristan

16. vi. 48. ♀ we. 63 wi. 97

Iris yellow-green. The male from May 29 was moulting the body feathers.

The Variegated Laughing Thrush has not been recorded previously from Afghanistan where I found it breeding in the province of Nuristan. The species is distributed in Himalayas from Nepal (type locality of *variegatus*) in the east to Afghanistan in the west, and a cline runs from east to west in the decrease of the yellow and olive pigments. The Kashmir race, *simile*, resembles *variegatus* exactly, except that the grey portions of the primaries and tail feathers are pure French-grey, entirely untinged with yellow, olive, or orange (HUME). Compared with three specimens from Kashmir, the Nuristan series is distinctly greyer than *simile* as the sides of the neck and the whole upper plumage are dark grey with a varying amount of olive-brown tinge. Further, the ashy-brown crown and nape are a little darker in the Nuristan birds. As the population of Nuristan is the end of a cline I find it convenient to have a name for it whereas I propose

Garrulax variegatus nuristani subsp. nov.

Type: No. 621 ♂ ad. Pashki, at 2500 m., middle Parun Valley, Nuristan, May 29, 1948.

I did not observe the Variegated Laughing Thrush until May 29 at Pashki. I think the bird must arrive rather late as its voice is very characteristic, and as I had not noticed it before during all the spring. After the 29th I heard and saw it on several occasions above Pashki and Stiewe. It prefers to hide in scrub but, contrary to *lineatus*, it may perch in trees. It occurred up to an altitude of about 3000 m.

In this species also the voice is very variable. The most characteristic notes may be recorded as *hütje-gütje* and *pa'tuje*.

In the males collected May 29–June 3 the testes (from 6×4 to 7×4 mm.) were presumably not at their maximum size, as were not the sex organs in the two females from the beginning of June. The female from June 16 would have laid within a few days.

(278). *Phylloscopus collybita* – Chiffchaff

a. *Phylloscopus collybita tristis* Blyth b. *Phylloscopus collybita fulvescens* Severtsov

a. Gusalek, Nuristan

15. iii. 48. ♂ 1 × 1 we. 8 wi. 65

o — — — 64 ♂

b. Estuary of Farah Rud, Seistan

26. iii. 49. ♂ 1×1 we. 7 wi. 60

Faizabad, Seistan

13. iv. 49. o — 7 — 61

17. iv. 49. o — 6 — 56 (♀)

Farah, SW Afghanistan

3. iv. 49. ♂ 1×1½ — 8 — 65

♀ 4×1½ — 7 — 57

♀ 1½×1 — 5 — 55

Bamian, Central Afghanistan, 16. ix.—12. x. 49.

Weight 9 ♂♂: 7–9 (7,6); 4 ♀♀: 6–7 (6,3)

Wing 9 ♂♂: 61–65 (62,1); 4 ♀♀: 55–58 (56,0)

In the specimens from Gusalek in Nuristan the upper parts are darker than in the specimens from Seistan collected at the same time of the year, and they show no, or virtually no, greenish tinge. In this respect they agree with a series of *tristis* from the Jelogin river east of the Yenisei, whereas the Seistan specimens and those from Bamian agree with series of *fulvescens* from western Siberia in professor JOHANSEN's collection. For the validity of these two races see JOHANSEN 1947 and 1954. I have not been able to compare the Nuristan birds with *sindianus* but owing to the long second primary, the wing length, and the bright yellow under wing and axillaries I believe they cannot belong to this subspecies.

In the spring of 1948 I found the Chiffchaff a very scarce passage migrant in the Pech-Parun Valley in Nuristan. On March 15 and 24 I saw a few at Gusalek and on April 9 two warblers at Wama which I presume also belonged to this species.

In the spring of 1949 we observed a few between the end of February and the beginning of April along the lower Farah Rud in Seistan. In the first week of April it was rather numerous in the hotel garden in Farah.

In the autumn of 1949 the Chiffchaff was on passage in the Bamian area from the middle of September to the middle of October. On most days I saw from a few up to about a dozen; anything like a mass migration was never observed.

(279). *Phylloscopus neglectus* Hume – Plain Brown Willow-Warbler

Faizabad, Seistan

17. iv. 49. ♀ 3×2 we. 5 wi. 49 tl. 34

Obeh, W Afghanistan

12. vii. 49. ♂ ½×½ — 5 — 54 — 39

15. vii. 49. ♂ 1½×1 — 5 — 53 — 40

17. vii. 49. o — 5 — 50 — —

12. vii. 49. ♀ — 5 — 47 — —

Sauzak Kotal, W Afghanistan

22. vii. 49. o — 5 — — — —

We found this warbler first in Seistan where MADSEN saw one on April 17 in a low tamarisk bush in the fields of Baqrabad. It may breed in Seistan as it does in Iranian Baluchistan and in northern Baluchistan proper, but we saw this single specimen only.

In the middle of July I found a few in scrub at altitudes between 2300 and 2800 m. in the side valley above Obeh east of Herat, and on July 22 I collected one in the *Juniperus* scrub at 2500 m. in the Sauzak Kotal. These birds were moulting and silent so I never got the opportunity to learn if the voice resembles that of the chiffchaff.

(280). *Phylloscopus tytleri* Brooks – Tytler's Willow Warbler

Pashki, Nuristan

23. v. 48. ♂ 7×5 we. 7 wi. 57 tl. 38
5. vi. 48. ♂ 10×6 — 8 — 61 — 41

Bill dark horn, basis of lower mandible a little lighter. Tarsi and toes dark horn brown.

Although no authority seems to exist for the statement by BAKER (2: 456) that *tytleri* breeds in Afghanistan, it really does so, because I found it a scarce breeding bird at Pashki in the Parun Valley, Nuristan. I saw the first few birds on May 23 and 24 in a glade at an elevation of 2600 m. They were in pairs and were searching for food in tall *Pinus exelca* as well as down in the scrub. The male collected had enlarged *testes* and *vesiculae seminales*. The fat tissues were well developed. On June 5 I observed two, presumably a pair, which very tenaciously kept to the same place on a slope with *Abies* and scrub at an altitude of 2550 m. In the male, which was collected, the testes were at their maximum size and the *vesiculae* were much enlarged.

The voice I have written down as 'tji-jeep', 'tji-jeep and vitjip-vitjip.

(281). *Phylloscopus griseolus* Blyth – Olivaceous Willow Warbler

Wama, Nuristan

22. iv. 48. ♂ 2×2 we. 9 wi. 67

Pashki, Nuristan

24. v. 48. ♀ laying — 9 — 59
6. vi. 48. ♀ 4×3 — 8 — 58

Stiewe, Nuristan

17. vi. 48. ♂ 7×5 — 8 — 68
♂ 7×5 — 8 — 66

Miyan Deh, Badakhshan

1. vii. 48. ♀ — — — 59

Tarsi and toes light horn brown. Bill dark horn brown, lower mandible paler.

I found the Olivaceous Willow Warbler only in Nuristan and Badakhshan in northeastern Afghanistan. At Wama in central Nuristan I noticed a few individuals, on April 22, on a mountain slope with boulders and almond scrub. – At Pashki I found it at its breeding grounds at elevations of 2800–3000 m. The habitats were steep boulder strewn mountain slopes with scattered vegetation of *Viburnum*, *Rosa* etc. The female collected on May 24 had an egg without shell in the oviduct. – At Stiewe I found it twice only. In the males collected here on June 17 the testes were injected and at their maximum size and the *vesiculae seminales* were much enlarged. In Badakhshan I found it rather common among the stone heaps and rose scrub around the fields at Miyan Deh (2550 m.) in the Kokcha Valley. I saw it also at several localities between Zebak, Sanglich and Maghnaol.

The call note I heard as *tjit-tjit-tjit*. It might also have two or four syllables. The song may be transcribed as *ta-viaviavia* or *ta-vievievie*.

(283). *Phylloscopus inornatus humei* (Brooks) – Hume's Willow Warbler
(Yellow-browed Willow Warbler)

Wama, Nuristan, 14. iv.–2. v. 48.

Weight ♂♂: 6, 6

Wing ♂♂: 54, 57, 57, 59; sex ? : 55

Pashki, Nuristan, 11.–23. v. 48.

Weight ♂♂: 5, 6, 6; ♀: 6

Wing ♂♂: 56, 58, 62; ♀: 55

Tilli, Badakhshan, 18.–19. vii. 48.

Weight ♀♀ ad.: 6; juv.: 5

Wing ♀♀ ad.: 55; juv.: 54

Bamain, Central Afghanistan, 22. ix.–3. x. 49.

Weight ♂: 6; sex.?: 5, 6, 6

Wing ♂: 56; sex.?: 53, 55, 56.

Comparison of this series with breeding specimens of *humei* and nominate *inornatus* from West Siberia in professor JOHANSEN'S collections shows that these Afghan birds are distinct from nominate *inornatus*, and agree with *humei*, in having paler, more olive brown, upper parts. The adult breeding specimen from Tilli in Badakhshan agrees fully with June–July specimens from southern West Siberia whereas the upper parts in the Nuristan specimens, presumably because of their fresher plumage, are a little less grey.

Hume's Willow Warbler occurred rather numerously on passage in Nuristan in the spring of 1948. I noticed the first arrivals around Wama on April 14 and recorded it on several days until we left the place on May 6.

– The peak of passage at Pashki seemed to be on May 13–14. Later I saw a few only, the last one, a female with an undeveloped ovary, on the 23rd.

In Badakhshan it bred in the scrub (Figure 9) along the Kokcha River at Tilli (2700 m.) where I collected a female and a juvenal on July 18.

In the autumn of 1949 a slight passage was observed from about September 22 to the middle of October at Bamian, Aq Ribat, and Band-i-Amir.

(284). *Phylloscopus subviridis* (Brooks) – Brooks's Willow Warbler

Wama, Nuristan, 12.–24. iv. 48.

Weight ♂♂: 5, 5; ♀: 5

Wing ♂♂: 54, 56; ♀: 53

Pashki, Nuristan, 9. v.–3. vi. and 24. vii. 48.

Weight ♂♂: 5, 5, 5, 6; ♀: 5

Wing ♂♂: 55, 56, 57, 57, 58; ♀: 53

A male collected on July 24 is in postnuptial moult.

Subviridis is believed by some authors to be conspecific with *inornatus*. My scanty field observations threw no light on this problem. The specimens collected, however, are pure *subviridis* and show no transition to *inornatus*.

I found Brooks's Willow Warbler only in Nuristan. I saw a few warblers in the oak forest on March 23 which presumably belonged to this species.

– At Wama I recorded it on several days in April. In the specimens collected there the gonads were still rather small (in males about 3×2 mm.), the oviduct in the female from the 17th, however, slightly enlarged. – Around Pashki it was a scarce breeding bird. In the males from the last third of May the testes were at their maximum size (5×4 and 6×5 mm.) as were the oviducts in two females from May 26 (not skinned) and June 3. The habitat was open parts of the *Abies* and *Picea* forests up to an elevation of about 2800 m.

(285). *Phylloscopus trochiloides* – Greenish Willow Warbler

a. *Phylloscopus trochiloides viridanus* Blyth

b. *Phylloscopus trochiloides ludlowi* Whistler

a. Wama and Pashki, Nuristan, 28. iv.–3. vi. 48.

Weight 12 ♂♂: $6\frac{1}{2}$ – $8\frac{1}{2}$ (7,4); 9 ♀♀: 6–7 (6,7)

Wing 18 ♂♂: 60–65 (62,4); 9 ♀♀: 57–59 (58,4)

b. Pashki, Nuristan

12. v. 48. ♂ 4×3 we. $7\frac{1}{2}$ wi. 65

28. v. 48. o — $8\frac{1}{2}$ — 66 (♂)

12. v. 48. ♀ 5×4 — 7 — 63

Weran Valley, Badakhshan

20. vii. 48. ♀ 3×2 — — — 62

Tarsi and toes dark horn brown. Bill also dark horn brown, lower mandible, however, horn yellow with dark tip. In a few specimens the base of the mandible was paler, in one with a faint rosy tinge. These specimens had the largest testes, so presumably a colour change follows the development of the testes.

Compared with specimens from western Siberia the upper parts in the series "a", collected during the migration in Nuristan, are a darker olive green, the yellow tinge of the under parts is more olive yellow, the tarsi and toes are darker, and the dark tip of the lower mandible is larger. There are thus some differences between this series and *viridanus*. On the other hand, it cannot belong to *sushkini* (SNIGIREWSKI, Jour. Orn. 1931: 61 – Miass, southern Urals), which was described as less yellow below than *viridanus*. Besides, *sushkini* is not recognized by either the "Birds of the Soviet Union" (6: 78) or by TICEHURST (1938: 140). Until more material is available from the countries north of Afghanistan it seems better to refer the series to *viridanus*.

Among the series of Greenish Willow Warbler there are some specimens with conspicuously large wings. Dr. VAURIE has had the kindness to compare these with the material in the American Museum, and he found that the series "b" can safely be called *ludlowi* which is a not perfectly constant form, intermediate between *viridanus* and nominate *trochiloides*.

During the spring of 1948 I saw the first migrants at Wama in Nuristan on April 28. The largest wave of migrants came through the Pech-Parun Valley about the middle of May at which time we camped at Pashki, but I saw a few birds there as late as June 5. Although the testes in two males from May 30 were injected and measured 5×3 and 6×4 I think all the birds observed in Nuristan were passage migrants. In all the females collected the gonads were inactive.

I found it in scrub down in the main valley as well as in glades high up in the coniferous forests.

In the Weran Valley just north of the main Hindukush range I collected an adult female on July 20 at an elevation of 3350 m. which belongs to the subspecies *ludlowi*. A few more individuals were seen in the valley where they inhabited small patches of willow scrub. In the ovary of the female collected all the follicles were small. – As seen in the list of specimens a few representatives of this subspecies were collected in Nuristan during the migration.

This species was not found outside Nuristan and Badakhshan, and I did not find *Ph. nitidus*, which according to VAURIE (1954, Am. Mus. Nov. 1685: 21) breeds in the Paropamisus, possibly as far east as longitude 68° E. None of my specimens of *viridanus* shows any transition to *nitidus*.

(287). *Phylloscopus occipitalis* (Blyth) – Large Crowned Willow Warbler

Synonym: *Phylloscopus occipitalis kail* Koelz, Proc. Biol. Soc. Washington 52: 71 (1939 – Kail, about 70 km. NNE of Kabul)

Wama and Pashki, Nuristan, 28. iv.–9. vi. 48.

Weight 8 ♂♂: 8–9 (8,5); 5 ♀♀: 8–9 (8,4)

Wing 8 ♂♂: 65–70 (67,9); 5 ♀♀: 60–65 (62,8)

Pashki, Nuristan

24. vii. 48. ♂ ? we. 8 wi. 62 (♀)

This series shows considerable variation in the colourations of the upper parts. In three specimens they are a purer olive green, while in the rest they are more greyish olive. The subspecies *kail*, which was described on material collected just west of Nuristan, was based on worn and faded specimens of the greyish type. Dr. VAURIE has had the kindness to compare my series with the type and paratypes of *kail*, and he found that there is no doubt that *kail* is a synonym of *occipitalis*.

The Large Crowned Willow Warbler was seen only in Nuristan. It arrived at Wama on April 24, and from then on its call note was heard all over in the oak forest until we left on May 6. Whether any remains there to breed I do not know. – At Pashki it was one of the most numerous breeding birds, which lived both in the hazel and willow scrub in the bottom of the valley as well as in the more open parts of the various coniferous forests up to the upper tree limits. – During the last half of June I found it also a few times in scrub in the valley at Stiewe.

Its call note is a characteristic *chit-chit-chit*, which may also consist of four or two syllables and vary in loudness and pitch.

The testes were already enlarged (6×4) in a bird collected on April 28, but the maximum size (7×5) was not reached until the last week of May at which time protruding *vesiculae seminales* were also noticed. In three females collected on May 14 and June 3 the sex organs were only slightly enlarged, but in one from June 9 the oviduct was at its maximum size, and the largest follicle measured 2 mm. in diameter and was more yellow than the smaller ones. These observations probably show that the breeding season does not start until the beginning of June. At this time I observed also pursuit flights, and saw in a few cases a bird hopping on a bough flipping one wing and then the other. On the 11th one carried nesting material.

(288). *Regulus regulus himalayensis* Jerdon – Goldcrest

Pashki, Nuristan

5. vi. 48. ♂ 6×4 we. 5 wi. 54

20. v. 48. ♀ 5×3 — 5 — 52

10. vi. 48. ♀ laying — 7 — 53

I have not been able to compare these specimens with material of *himalayensis* but their upper parts and the sides of the head are more greyish than in nominate *regulus*. According to the description these characters separate *himalayensis* from the nominate race.

The Himalayan Goldcrest has not been collected hitherto in Afghanistan, but it was known from the Safed Koh just outside the eastern border. I saw only the three specimens collected which are all from the vicinity of Pashki in Nuristan where they were taken in coniferous forest at altitudes between 2600 and 2700 m. The male from June 5 had large injected testes, and the female from the 10th was laying.

(289). *Cettia cetti albiventris* Severtzov – Cetti's Bush Warbler

Panjao, Central Afghanistan

15. vi. 49. ♀ 1 we. 12 wi. 62
♀ 1 — 13 — 62

Obeh, W Afghanistan

12. vii. 49. ♂ $\frac{1}{2} \times \frac{1}{2}$ — 15 — 68
15. vii. 49. ♂ $\frac{1}{2} \times \frac{1}{2}$ — 15 — 67
12. vii. 49. ♀ $2 \times \frac{1}{2}$ — 12 — 60 juv.

According to VAURIE (1954, Am. Mus. Nov. 1691: 7) Cetti's Bush Warbler is a breeding bird in Afghan Turkestan and Badakhshan north of the Hindukush range. I found it at two localities south of the main range, namely at Panjao in central Hazarajat and at Obeh east of Herat, but I never saw it or heard its characteristic voice elsewhere in Afghanistan. At Obeh it was rather common at altitudes between 1800 and 2400 m. in the scrub clad bottom of the side valley. The gonads of the birds collected were in inactive stage.

(291). *Locustella naevia straminea* Seebohm –
Grasshopper Warbler

Wama, Nuristan

2. v. 48. ♀ 4×3 we. — wi. 56 tl. 49

Bamian, Central Afghanistan

24. ix. 49. ♂ 1×1 — 10 — 61 — (47)

The specimen from Bamian agrees with four from western Siberia. In the one from Wama, however, the dark streaks of the upper parts are more distinct and the feather edges are more olive, and it shows also some faint streaks on the sides of the body. VAURIE has examined this specimen and found that it matches one fairly well in comparative plumage from Turkestan, the type locality of *straminea*.

The Eastern Grasshopper Warbler is known only as a passage migrant in Afghanistan. In the spring of 1948 I saw in Nuristan only the specimen that was collected. In the autumn of 1949 there were a few on passage at Bamian on September 20 and 24.

(294). *Acrocephalus stentoreus brunnescens* (Jerdon) –
Indian Great Reed Warbler

Shin Dand, W Afghanistan, 28.–30. vi. 49.

Weight ♂♂: 25, 27, 28, 28, 31; sex ? : 26; ♀: 26

Wing ♂♂: 84, 87, 88, 88, 90; sex ? : 86; ♀: 83

Herat, W Afghanistan

5. vii. 49. ♂ 9×5 we. 28 wi. 85

Farah, SW Afghanistan

28. iv. 49. ♂ 5×3 — 25 — 84

30. iv. 49. ♂ 5×3 — 24 — 85

Bamian, Central Afghanistan

21. ix. 49. ♀ $2\frac{1}{2} \times 1\frac{1}{2}$ — 21 — 84

8. x. 49. ♀ $5 \times 2\frac{1}{2}$ — 24 — (81)

The Indian Great Reed Warbler is a passage migrant and breeding bird in Afghanistan where it breeds presumably in most parts of the country. In southern Afghanistan I heard its song on June 26 from some scrub along the river west of Kandahar and on May 4 and 5 along the Helmand river at Lashkari-Bazar. – In western Afghanistan it was rather common and singing eagerly in the last days of April and the first days of May along the river at Farah. In late June I found it very numerous around Shin Dand, especially in some small *Typha* beds. At Herat I saw a few in the first week of July. – In central Afghanistan I heard it in the middle of June at Panjao. – In northern Afghanistan it was very numerous in the extensive reed beds at Chashma-i-Sher when on August 5 we visited this locality on the Danaghori Plains.

(295). *Acrocephalus scirpaceus fuscus* (Hemprich & Ehrenberg) –
Reed Warbler

Herat, W Afghanistan

3. vii. 49. ♂ 7×5 we. 9 wi. 65 tl. 53

This specimen seems to be the first record of the Reed Warbler for Afghanistan but it is known to breed in the surrounding countries: Eastern Iran, Transcaspia, and Turkestan. The specimen was together with a second bird in a small reed bed. Its *testes* and *vesiculae seminales* were much enlarged.

(296). *Acrocephalus dumetorum* Blyth – Blyth's Reed Warbler

Pashki, Nuristan

25. v. 48. o we. — wi. 60 tl. 50

Gardez, E Afghanistan

24. v. 49. ♂ 3×2 — 12 — 64 — 52

Obesh, W Afghanistan

12. vii. 49. o — 8 — 63 — 52

E of Mazar-i-Sharif, N Afghanistan

1. viii. 49. ♂ 1×¹/₂ — 10 — 62 — 49

Bamian, Central Afghanistan, 9.–27. ix. 49.

Weight ♂♂: 11, 11, 11; sex?: 11, 11

Wing ♂♂: 62, 63, 64; sex?: 61, 62

Tail ♂♂: 50, 51, 53; sex?: 51, 53

The specimen from Pashki in Nuristan was collected on May 25 in scrub on a mountain slope. It was the only one I saw in Nuristan. – At Gardez in eastern Afghanistan there were a few on May 24 in scrub around the fields near the town. – At Obesh in western Afghanistan I saw and collected a single one on July 12 in the same bush vegetation where I also collected *Phylloscopus neglectus*. Observation of these birds and the examination of their sex organs (which in two of the birds were quite destroyed by the shot) did not show whether the birds from all these localities were breeding or not. I believe, however, that the dates suggest very much that the birds were on their breeding grounds.

In the autumn of 1949 a few *A. dumetorum* and *A. agricola* were seen on several days between September 8 and October 13. The status of the birds is not clear; I think, however, that some migration took place as there was a slight increase in their number for some days about the middle of September. Nothing can be said about the ratio of the two species except the information given by the specimens collected.

(297). *Acrocephalus agricola* (Jerdon) – Paddy-Field Warbler

Faizabad, Seistan

16. iv. 49. ♂ 4×2 we. 10 wi. 56 tl. 52

Bamian, Central Afghanistan, 8. ix.–13. x. 49.

Weight 7 ♂♂: 9–10 (9,1); sex?: 8; 5 ♀♀: 8–9 (8,6)

Wing 7 ♂♂: 56–60 (58,0); sex?: 56; 5 ♀♀: 55–57 (56,0)

Tail 6 ♂♂: 49–52 (50,8); sex?: 48; 5 ♀♀: 44–50 (47,6)

MEINERTZHAGEN (1938: 679) and MACONACHIE (WHISTLER 1945: 106) collected the Paddy-Field Warbler under circumstances which suggest its breeding in Afghanistan. I saw it never outside the time of migration. A few

were seen on April 16 near Faizabad on the lower Farah Rud in Seistan. The observations at Bamian in the autumn of 1949 are mentioned under *A. dumetorum*.

(299). *Hippolais languida* (Hemprich & Ehrenberg) – Upcher's Warbler

Paigah Kotal, east of Haibak, N Afghanistan

4. viii. 49. ♂ 1×1 we. 13 wi. 78
o — 13 — 74

The male is an adult in badly worn plumage. The unsexed bird is a juvenal.

I found Upcher's Warbler only in the Paigah Kotal where we saw several individuals in the pistachio scrub in the pass. Presumably, they were on their breeding grounds.

(301). *Hippolais caligata rama* Sykes – Sykes's Tree Warbler

Faizabad, Seistan, 9.–20. iv. 49.

Weight 39 ♂♂: 8–10½ (8,9); ♀♀: 7, 8, 8½

Wing 39 ♂♂: 59–66 (61,9); ♀♀: 55, 59, 60

Tail 38 ♂♂: 46–54 (51,1); ♀♀: 47, 49, 50

Difference between 1. primary and primary coverts: 43 ♂♂ & ♀♀: 4–12 (7,8)

Length of 2. primary:

	6 > 2 > 7	2 = 7	7 > 2 > 8	2 = 8	
Nos.	1	6	15	18	= 40
Per cent	2	15	38	45	

Sex organs: ♂♂ from 1×1 to 2×3; ♀♀ undeveloped.

Farah, SW Afghanistan

30. iv. 49. ♀ 4×2½ we. 9 wi. 58 wi. form. 6 > 2 > 7 1.pr.–cov. 8 tl. 50

Lashkari-Bazar, S Afghanistan

4. v. 49. ♂ 4×3 — 8 — 60 — 2=7 — 5 — 49

Ab-i-Istada, E Afghanistan

9. v. 49. ♀ 4×3 — 8 — 57 — 2=7 — 7 — 41

♀ 4×3 — 8 — 58 — 2=8 — 5 — 45

Mukur, E Afghanistan

8. v. 49. ♀ 4×2 — 8 — 57 — 6 > 2 > 7 — 8 — 44

Tirpul, W Afghanistan

9. vii. 49. ♀ — 8 — 57 — 6 > 2 > 7 — 7 — (46)

Herat, W Afghanistan

4. vii. 49. ♂ ½×½ — 8 — 60 — 6 > 2 > 7 — 10 — 48

♂ ½×½ — 9 — 61 — 2=7 — 11 — 49

5. vii. 49. ♂ 5×4 — 9 — 64 — 6 > 2 > 7 — 9 — 52

Obeh, W Afghanistan											
20. vii. 49.	♀	3×2	we	9	wi.	58	wi.	forw. 7 > 2 > 8	l. pr.—cov. 8	tl.	47
Kwaja Chisht, W Afghanistan											
19. vii. 49.	♀	3×2	—	8	—	59	—	2=8	—	7	— 49
Bala Murghab, N Afghanistan											
24. vii. 49.	♂	1/2×1/2	—	11	—	61	—	?	—	8	— 47
Mazar-i-Sharif, N Afghanistan											
1. viii. 49.	o		—	9	—	62	—	2=7	—	7	— 50
Haibak, N Afghanistan											
4. viii. 49.	♂	1×1/2	—	9	—	60	—	?	—	8	— 45
Bamian, Central Afghanistan											
7. ix. 49.	♂	1/2×1/2	—	7	—	60	—	6 > 2 > 7	—	8	— 48
	♂	1/2×1/2	—	9	—	61	—	6 > 2 > 7	—	7	— 48
20. ix. 49.	♂	1×1/2	—	10	—	63	—	6 > 2 > 7	—	6	— 47
6. ix. 49.	o		—	8	—	60	—	?	—	6	— 45
8. ix. 49.	o		—	7	—	60	—	7 > 2 > 8	—	7	— 47
12. ix. 49.	♀	2×1	—	7	—	58	—	6 > 2 > 7	—	7	— 47

In all my specimens from Afghanistan the upper parts are greyer, less brownish, than in 10 breeding males of nominate *caligata* from western Siberia. I therefore refer all the Afghan birds to *rama* although some specimens have a wing formula (6 > 2 > 7) which is said to be characteristic of nominate *caligata*. In other respects, such as colour and length of tail and first primary, the specimens with this wing formula agree completely with the other specimens in the Afghan series. The wing formula of this series varies a great deal as shown in the list.

Migration: During the spring of 1949 I observed the first migrants on April 9 on the lower Farah Rud in Seistan. The migration was still going on when we left on the 21st. The specimens collected show that the males were highly dominant during this part of the migration. In all 39 males were taken against 3 females, which were collected on April 18–20. The height of the migration seemed to fall about the middle of the month but the passage continued still in the beginning of May for on the 9th I observed two individuals on a small island in Ab-i-Istada in eastern Afghanistan where the habitat was not suitable for breeding. Besides, the sex organs in these females were still undeveloped. Earlier in the month I saw it along the Helmand, south of Girishk, and at Mukur.

At Bamian I observed only a slight migration between September 6 and 20, 1949. In the Pech-Parun Valley in Nuristan I saw no migrants in the spring of 1948.

Observations from the breeding season: In April 1949 I saw some in the hotel garden in Farah, these may have been migrants, but on

June 27 there were still a few present and one was carrying nesting material. – In July I found it at several localities between Tirpul and Kwaja Chisht in the main Hari Rud Valley where it inhabited open tamarisk and willow scrub. Family parties were seen on July 9. – In northern Afghanistan I saw it at Qala Nau, Bala Murghab, Mazar-i-Sharif and Haibak between July 27 and August 3.

(302). *Sylvia nisoria merzbacheri* Schalow – Barred Warbler

AITCHISON and MEINERTZHAGEN collected each a single Barred Warbler in Afghanistan on May 7 and 14, but it is not known whether these birds were on their breeding grounds or they were migrants. I saw a single one on May 17 in a willow scrub near Pashki in Nuristan. It was presumably a migrant, for I visited the same scrub several times without seeing more than this single bird.

(303). *Sylvia hortensis jerdoni* (Blyth) – Orphean Warbler

Obeh, W Afghanistan

12. vii. 49.	♂	4×3	we. 23	wi. 79
	♀	4×3	— 24	— 78
15. vii. 49.	♀		— 25	— — juv.

In the middle of July I found the Orphean Warbler to be rather common up to an altitude of about 2400 m. in the scrub clad side valley at Obeh, east of Herat. It was the only locality in Afghanistan where I saw the species.

The badly worn plumage of the two adults does not permit subspecific discrimination. VAURIE (1954, Am. Mus. Nov. 1692: 1) has recently shown that the breeding birds from Iranian Baluchistan and eastern Afghanistan (*jerdoni*) differ from the populations of Transcaspia and Iran proper (*balchanica*). In *jerdoni* the cap is almost pure black and the upper parts are distinctly purer grey than in *crassirostris* and *balchanica*. According to VAURIE *crassirostris* is restricted to the Balkan Peninsula, Cyrenaica, Sudan, Asia Minor, and the Near East. The populations of northwestern Afghanistan may belong to *balchanica*, but until more material is available I think it is probably best to refer all birds from Afghanistan to *jerdoni*.

(304). *Sylvia communis icterops* Ménétries – Whitethroat

Bamian, Central Afghanistan, 6.–19. ix. 49.

Weight	♂♂: 14, 15; ♀♀: 14, 17, 18; sex ? : 15, 16, 16
Wing	♂♂: 72, 76; ♀♀: 73, 74, 75; sex ? : 74, 75, 76

These specimens are typical representatives of the grey subspecies, *icterops*.

A few Whitethroats occurred on passage in the Bamian region between September 6 and 19. I found most of them in poplar groves along the river at an altitude of 2600 m. but some were seen above 3100 m. in a valley without any scrub. Here they ran on the earth or perched on boulders.

This is the first record published of the Whitethroat for Afghanistan where it is only a bird of passage, presumably on its way to the winter quarters in India. TICEHURST (Ibis 1922: 558) found it to be a fairly common passage migrant in Sind from the beginning of September to the beginning of October. The migrants observed there, may most likely have passed through Afghanistan although they have not been noticed there previously.

(305). *Sylvia curruca* – Lesser Whitethroat

a. *Sylvia curruca blythi* Ticehurst & Whistler

b. *Sylvia curruca halimodendri* Sushkin

a. Faizabad, Seistan, 8.–20. iv. 49.

Weight ♂♂: 10, 10, 10¹/₂; ♀: 12; sex ?: 9, 10¹/₂

Wing ♂♂: 61, 62, 64; ♀: 64; sex ?: 60, 63

Bamian, Central Afghanistan, 9. ix.–14. x. 49

Weight 7 ♂♂: 10–13 (11,4); 8 ♀♀: 10–12 (10,9)

8 sex ?: 10–13 (11,5)

Wing 7 ♂♂: 62–67 (64,7); 8 ♀♀: 63–65 (63,9)

8 sex ?: 63–66 (64,8)

b. Faizabad and Baqrabad, Seistan, 8. iii.–20. iv. 49.

Weight 13 ♂♂: 9¹/₂–12 (10,9); 9 ♀♀: 9¹/₂–11 (10,0); sex ?: 9, 10

Wing 15 ♂♂: 60–67 (63,7); 9 ♀♀: 57–63 (61,0); sex ?: 61, 62, 64

In the specimens collected in Seistan during the spring migration the upper parts show a continuous variation from a greyish to a more brownish tone. Six of the most brown specimens compare well with specimens of *blythi* from western Siberia. All the other birds I refer to the more southern subspecies *halimodendri*. In four *blythi* the wing formula is 6>2>7, in one 7>2>8, and in one it is uncertain. In the greyer birds, *halimodendri*, two specimens have the formula 5>2>6, sixteen 6>2>7, six 6>2 = 7 and two 7>2>8.

The 23 specimens collected at Bamian during the autumn migration are very uniform and compare well with material of *blythi* from western Siberia. One specimen has the wing formula 6 = 2>7, twenty one 6>2>7, and one 6>2 = 7.

Dr. VAURIE has had the kindness to compare samples of my series with the material in the American Museum. His examination verified my determinations.

During the spring migration of 1949 I saw on March 8 the first few Lesser Whitethroats on the lower Farah Rud in Seistan. Their number remained rather constant and low during the following period, but on the 26th there was a pronounced passage, and on the 30th a smaller one. Thereupon a few birds were seen again almost daily until we left on April 20. I saw also several individuals during a visit to Farah on April 6 and single ones at Dilaram, April 4, and Farah, May 2.

The size of the testes in the spring migrants varied from $1\frac{1}{2} \times 1$ to 4×3 . The last mentioned size was measured in two birds from March 26 and 30. In all the females the sex organs were undeveloped.

During the autumn of 1949 at Bamian we saw from a few up to about a dozen individuals on most days during our stay there (September 6 to October 17). A mass migration was never observed, but it was most numerous on September 18 and 21.

In the breeding season I did not find any Lesser Whitethroat in Afghanistan where it is replaced by *Sylvia althaea* which, however, must be considered to be a separate species (VAURIE, 1954, Am. Mus. Nov. 1692: 9).

(307). *Sylvia althaea althaea* Hume – Hume's Whitethroat

Pashki, Nuristan

5. vi. 48. ♂ 10×6 we. 13 wi. 70

Stiewe, Nuristan

19. vi. 48. ♂ 9×6 — 13 — 65

24. vi. 48. ♂ 9×6 — 13 — 69

Tilli, Badakhshan

19. vii. 48. ♂ 3×2 — 13 — 71

♂ 3×2 — 15 — 71

Kachari, Badakhshan

3. vii. 48. ♀ — 16 — 69

Obeh, W Afghanistan

12. vii. 49. ♂ 3×2 — 13 — 69

15. vii. 49. ♂ — 16 juv.

Panjao, Central Afghanistan, 12.–15. vi. 49.

Weight 6 ♂♂: 13–15 (14,3)

Wing 6 ♂♂: 67–70 (68,8)

Dr. VAURIE has compared the specimens above with the material in the American Museum and he found them to be typical *althaea*.

Hume's Whitethroat is a scarce and local breeding bird in Nuristan where I found a few on scrub clad mountain slopes above Pashki and in scrub around the fields in the main valley or on the *Artemisia* clad mountain slopes at Stiewe.

In Badakhshan I found it in July at many localities in the Kokcha and Sanglich valleys at altitudes between 1550 and 2750 m.

In Hazarajat I heard it on June 11, 1949, at Diwal Kol, and in the middle of June I found it to be numerous in willow scrub along the river at Panjao. In the middle of July I saw it several times up to an altitude of 2400 m. in the side valley at Obeh, east of Herat. – In northwestern Afghanistan I saw one on July 23 in the hotel garden in Qala Nau.

In the birds collected in June the testes were at their maximum size (from 8×5 to 10×6) and injected. *Vesiculae seminales* were also large. The song is unmistakably like that of *S. curruca* including the characteristic rattle.

(308). *Sylvia nana nana* (Hemprich & Ehrenberg) – Desert Warbler

Baqrabad, Faizabad, and Estuary of Farah Rud, Seistan, 6. iii.–9. iv. 49.

Weight 12 ♂♂: 7–10,5 (8,8); ♀♀: 7, 9

Wing 15 ♂♂: 56–60 (58,0); ♀♀: 56, 58

Sex organs, testes $1\frac{1}{2} \times 1\frac{1}{2}$ to $2 \times 1\frac{1}{2}$. In the females undeveloped.

Bamian, Central Afghanistan

26. ix. 49. ♂ $1\frac{1}{2} \times 1\frac{1}{2}$ we. 8 wi. 58

6. x. 49. o — 8 — 56

This series shows some variation in the colouration of the upper parts. Some specimens are more brownish, while others are more greyish, but I am not able to decide whether this difference is geographical or individual.

The Desert Warbler is not known to breed in Afghanistan although it inhabits the countries both to the north, west and south. Only three previous records are known from Afghanistan, and they are probably all of migrants, as are my own observations.

At the lower Farah Rud in Seistan we observed some migration between March 6 and April 9 with a peak on March 21. Not until March 27 did we secure a female, however, after having collected 11 males during the earlier part of the migration which probably shows that the males migrate ahead of the females. We found most of the birds in open tamarisk scrub along the river or between the cultivated fields and in *Salicornia* vegetation in the steppe. The gonads in both males and females were undeveloped.

During the autumn migration of 1949 at Bamian we saw only the two specimens collected.

(309). *Sylvia mystacea* Ménétries – Ménétries's Warbler

Estuary of Farah Rud, Seistan

30. iii. 49. o we. 9 wi. 60

My only record is that of the specimen collected.

(310). *Scotocerca inquieta platyura* Severtzov –
Streaked Scrub Warbler

Obeh, W Afghanistan

15. vii. 49. ♂ 2×1 we. 8 wi. 49
♀ 2×1 — 8 — 49

These two specimens, presumably a pair, were collected at an altitude of 2300 m., and they represent all that I saw of this species. They were together in scattered scrub on a mountain slope.

I have not been able to compare them with material of *platyura* (type locality, Transcaspia), besides they are so badly worn that a comparison would be of little value. According to VAURIE (1955, Am. Mus. Nov. 1753: 13) *platyura* inhabits Paropamisus, the region north of Hindukush, and perhaps Seistan, while *striata* (type locality, Punjab) inhabits Afghanistan south of the Hindukush. As Obeh, east of Herat, is in the Paropamisus range I refer the specimens to *platyura* on geographical grounds.

(311). *Prinia gracilis lepida* Blyth – Streaked Wren Warbler

Farah, SW Afghanistan

1. v. 49. ♀ 3×3 we. 6 wi. 42

The Streaked Wren Warbler I saw only at Farah where a few inhabited the hotel garden and areas with high grass along the river. It was seen here on February 22, April 30, and May 1. On the last date mentioned one was carrying nesting material. In the female collected the ovary contained only small follicles.

(312). *Prinia crinigera striatula* (Hume) – Brown Hill Warbler

Gusalek, Nuristan

1. iii. 48. ♂ 1×1 we. 12 wi. 55 tl. 80

R. W. SIMS has had the kindness to compare this specimen with the material in the British Museum. Unfortunately, there were no birds in comparable plumage so a precise comparison was impossible. It seems, however, to be somewhat intermediate between *striatula* (type locality Karachi, Sind) and nominate *crinigera* (type locality Nepal), but it is nearest to *striatula*.

The specimen collected was the only one I saw. It hopped about along a fence in the cultivated area around the village. The distribution of the Brown Hill Warbler follows the mountain ranges from China to the border of Afghanistan and into Baluchistan. It is the first record for Afghanistan, and as it is a resident species it presumably breeds in the country.

(313). *Ficedula parva parva* (Bechstein) – Red-breasted Flycatcher

Wama, Nuristan

7. iv. 48.	♂	2×2	we. 12	wi. 69
19. iv. 48.	♂	2×2	— 13	— 70

Farah, SW Afghanistan

2. iv. 49.	♂	1×1½	— 11	— 67
	♂	1×1½	— 11	— 70
3. iv. 49.	o		— 12	— 67 (♀)

Faizabad, Seistan

10. iv. 49.	♂	2×1½	— 10	— 68
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Bamian, Central Afghanistan

7. x. 49.	o		— 10	— 72 (♂)
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These specimens belong to the typical subspecies. In the male collected on October 7 at Bamian, however, the throat patch is bordered with pale grey which may indicate a slight variation in the direction of *albicilla*, an eastern subspecies which is less common on migration through Afghanistan.

The Red-breasted Flycatcher occurs only on migration in Afghanistan. During the spring of 1948 I saw in Nuristan only the two specimens collected. In the spring of 1949 there were several males and females during the first week of April in the hotel garden in Farah and between April 10 and 18 a few in tamarisk scrub along the lower Farah Rud near Hamuni-Sabari.

In the autumn of 1949 at Bamian I saw, besides the specimens collected, on October 16 a single bird along a small brook at an altitude of 2900 m.

(315). *Muscicapa striata neumanni* Poche – Spotted Flycatcher

Pashki, Nuristan

21. v. 48.	♀	8×4	we. 14	wi. 86
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Darra-i-Shikari, Central Afghanistan

4. vi. 49.	♂	10×7	— 13	— 85
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Panjao, Central Afghanistan

12. vi. 49.	♂	5×4	— 14	— 90
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Obah, W Afghanistan

12. vii. 49.	♂	4×3	— 16	— 88
13. vii. 49.	♂	3×2	— 14	— 88
11. vii. 49.	o		— 16	— 88 juv.

These specimens represent the pale, eastern subspecies, *neumanni* (*sarudnyi* is considered a synonym). The two adult males from July are moulting. The unsexed bird from the same month is in the postjuvenile moult.

The Spotted Flycatcher is a summer visitor and a passage migrant to Afghanistan. During the breeding season I saw a few in the gardens in

Jurm and Faizabad in Badakhshan (July 1948). In the middle of June 1949 I found a few at rocky and very desolate places in the valley near Panjao in central Hazarajat. In July adults and juvenals were rather common up to an elevation of at least 2400 m. in the scrub clad side valley at Obeh, east of Herat. It bred also in Darra-i-Shikari where on June 4 I collected a male with fully developed gonads and *vesiculae seminales*.

On May 21, 1948, I saw a few at Pashki in Nuristan. In spite of the rather late date they may have been migrants for they represent all my records from the long stay in this province. The gonads in the female collected were only slightly enlarged. Other birds on passage were presumably a single one at Lashkari-Bazar, south of Girishk, on May 5, and four individuals between September 8 and 29 at Bamian.

(316). *Muscicapa sibirica gulmergi* (St. Baker) – Sooty Flycatcher

Pashki, Nuristan, 14. v.–12. vi. 48.

Weight ♂♂: 9, 9, 10; ♀: 10

Wing ♂♂: 72, 74, 76; ♀: 74

This small series agrees with four specimens of *gulmergi* collected in May at Naltar in Kashmir.

I saw only the four specimens which were collected around Pashki in central Nuristan. In two males from May 27 and June 11 the testes were much enlarged (6×5 and 8×5) and injected, and also the *vesiculae seminales* were at their maximum size. The birds were taken in very different habitats as willow scrub in the bottom of the valley and the upper more open *Abies-Picea* forest at an altitude of about 3000 m.

(317). *Muscicapa ruficauda* Swainson – Red-tailed Flycatcher

Pashki, Nuristan, 8. v.–10. vi. 48.

Weight 9 ♂♂: 11,2–12,8 (11,9); ♀♀: 11,7, 14,1, 15,8

Wing 10 ♂♂: 74–79 (76,6); ♀♀: 73, 73, 76

Usman Khel, SW Afghanistan

25. v. 49. ♂ 5×3 we. 12 wi. 74

This series compares well with four Kashmir specimens from the same season.

The Red-tailed Flycatcher, which is one of the many Himalayan species extending into Afghanistan, I found only around Pashki in central Nuristan and at Usman Khel near the east border in the province of Gardez.

At our arrival at Pashki on May 7, 1948, I found it rather common, but presumably only the males had appeared for it was not until the 17th that

I saw the birds in pairs and on the 20th I got the first female after having collected 9 males.

It was perhaps the most common bird around Pashki living in hazel and willow scrub in the bottom of the valley as well as in the various coniferous forests up to the tree limits. The song was heard all over, it may be interpreted as: *ouh-githgith* or *ouh-gith-e-gith*. The alarm note is a sparrow-like chirp which may be interrupted by *yeep, yeep*.

In the males the testes were enlarged and injected in all the specimens collected, but not until the end of May I noticed enlarged *vesiculae seminales*. In a female from May 20 the sex organs were enlarged but the oviduct was still not at its maximum size. A female from the 30th had a fresh full clutch of four eggs and a female from June 12 had an egg in the oviduct.

The nest with the clutch of four eggs was built about 8 m. up in an isolated *Abies* on a mountain slope at an elevation of 2600 m. It consisted of grass leaves and a little moss and was lined with coarse hairs. It was placed on a side branch about one foot from the stem.

On May 25, 1949, I heard a few in the forest near Usman Khel.

(318). *Terpsiphone paradisi leucogaster* (Swainson) –
Paradise Flycatcher

Kwaja Chisht, W Afghanistan

19. vii. 49.	♀	1 × 1/2	we. 18	wi. 87	tl. 88
	o		— 19	— 92	— 93

On April 13, 1948, EDELBERG saw the first Paradise Flycatcher at Wama in central Nuristan. From then until our departure on May 6 we saw a few more down in the bottom of the valley and up in the oak forest. Both white and brown individuals occurred. Higher up the Pech-Parun Valley I did not see it except one single, brown bird south of Doau at 1800 m. on July 29.

In Badakhshan I saw one brown bird with short tail at Barak on July 11, 1948, and in western Afghanistan half a dozen brown individuals on July 19, 1949, at Kwaja Chisht, east of Herat.

(320). *Parus major* – Grey Tit (Great Tit)

a. *Parus major caschmirensis* Hartert

b. *Parus major ziaratensis* Whistler

a. Pech-Parun Valley, Nuristan, 27. ii.–8. vi. 48.

Weight 10 ♂♂: 13,5–16,1 (14,6); 6 ♀♀: 12,5–16,6 (14,6)

Wing 11 ♂♂: 71–75 (73,3); 6 ♀♀: 69–72 (70,3)

b. Herat, W Afghanistan

4. vii. 49.	♂	4×3	we. 16	wi. 73
3. vii. 49.	♀	2×1 ¹ / ₂	— 14	— 72 juv.
4. vii. 49.	♀	3×2	— 15	— 72 juv.

Kwaja Chisht, W Afghanistan

19. vii. 49.	♀	— 16	— —
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Dr. VAURIE has had the kindness to compare my specimens with the fine series in the American Museum of Natural History. He found that the birds from Nuristan are too pale above and not dark or smoky enough below to be *decolorans* (type locality Jalalabad). They are very slightly darker than *caschmirensis* from Gilgit, Ladakh, and Baltistan but much closer, as a series, to the populations from Kangra, Kulu, and Lahul in northern Punjab which belong to *caschmirensis* also.

The adult specimens from Herat and Kwaja Chisht in western Afghanistan are badly worn, and the moult has started. They are quite pale below and are most probably *ziaratensis*, the type of which came from northern Baluchistan. VAURIE refers also some specimens collected by KOELZ at Kandahar and Herat in October and November to this subspecies. One of my immature birds from Herat has a slight tinge of green on the back which probably shows a trend to *intermedia*, the race of north-eastern Iran.

The Grey Tit was rather common from Gusalek (1000 m.) to Stiewe (2600 m.) in the Pech-Parun Valley in Nuristan. It inhabited the oak forest and scrub around the cultivated fields, and I saw it only exceptionally in the lower parts of the *Pinus gerardiana* forest at Pashki.

In the males collected the testes were small in March, increased much during April, and reached their maximum size in the beginning of May. Unfortunately no females were collected in May, but two from the first week of June were no longer in breeding condition.

The alarm note seemed to me to be identical with that of European birds, whereas the characteristic saw-sharpening song never was heard in its typical form, but merely as a two syllabic *djee-vit*.

Outside Nuristan I saw very few Grey Tits. In the first week of July I came across two family parties in some plantations near Herat, and higher up the Hari Rud Valley I found a few juvenals at Kwaja Chisht. In northern Afghanistan I heard its call from a garden in Haibak on one of the first days of August.

(321). *Parus rubidiventris rufonuchalis* Blyth – Black Tit

Synonym: *Parus rufonuchalis blanchardi* Meinertzhagen, Bull. Brit. Orn. Cl. 58: 95 (1938 – Gardez, E Afghanistan)

Wama and Pashki, Nuristan, 5. iv.-24. vii. 48.

Weight ♂♂ 11 ad.: 12,0-14,3 (13,1); juv.: 14, 15;
 ♀♀ 5 ad.: 11,3-14,4 (13,1)
 Wing ♂♂ 11 ad.: 73-80 (75,6); juv.: 75, 75;
 ♀♀ 5 ad.: 70-72 (71,0)

Sauzak Kotal, W Afghanistan, 22. vii. 49.

Weight ♂♂ ad.: 14, 14; juv.: 13, 14; ♀♀ ad.: 12; juv.: 12
 Wing ♂♂ ad.: 76, 77; juv.: 74, 76; ♀♀ ad.: 71; juv.: 70

Some specimens collected by KOELZ at the Burchao Kotal in Bend-i-Turkestan (1950, VAURIE, Am. Mus. Nov. 1459: 43) have extended the western border of the range by almost 400 km. but I found it still farther to the west at the Sauzak Kotal, northeast of Herat, where it was rather numerous in the juniper wood at elevations between 2400 and 2500 m. VAURIE found no difference between the western population and those from eastern Afghanistan. In a letter Dr. VAURIE informs me that he does not recognize *P. rubidiventris blanchardi* any longer. After examination he now agrees with WHISTLER (1944: 516) that it is best synonymized with *rufonuchalis* (type locality Simla). In the two adult males from Sauzak the black throat patch is smaller than in the specimens from Nuristan, this may, however, be due to difference in skinning. - All the birds from Sauzak Kotal were moulting.

In Nuristan, where both the small Black Tits live together, I attempted in vain to find some differences between the two species in habitat preference or other biological aspects. In the oak forest around Gusalek (1000 m.) I saw very few Black Tits in February-March and the few I could identify were all *melanolphus*. In April and the beginning of May I found both species at Wama. In the oak forest I identified with certainty only *melanolphus*. In the coniferous forest at Pashki both were rather numerous, especially *rubidiventris*, and they occurred at all elevations from the bottom of the valley up to the tree limits at about 3000 m. Outside the coniferous forest they were found also in the hazel vegetation in the bottom of the valley and on mountain slopes with grass, scrub and a few isolated conifers. At Stiewe, the uppermost village in the valley, neither of the two species occurred.

The breeding season seems to fall between the end of April and the beginning of June. In a male collected on April 5 the testes were small (3×2). In one from the 21st they had already reached the maximum size (10×6) but not until the last week of May I noticed fully developed *vesiculae seminales*. Four females collected between May 26 and June 12 were presumably no longer in breeding conditions.

The voice of *P. rubidiventris* I wrote down as: *tju-tju-’hee* and *tjau’kee*. The alarm note is a *trrr* similar to that of *P. major*.

(322). *Parus melanolophus* Vigors – Crested Black Tit

Gusalek, Nuristan

29. ii. 48.	♂	1×1	we. 8	wi. 65
	o		— 8	— 62
20. iii. 48.	♀		— 7	— 63

Wama, Nuristan

3. v. 48.	♂	7×6	— —	— 62
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Pashki, Nuristan

24. v. 48.	♂	9×6	— 9	— 65
	♂	7×5	— 9	— 64
26. v. 48.	♂	7×5	— 8	— 65
9. v. 48.	♀	1	— 9	— 63

Usman Khel, Gardez, E Afghanistan

25. v. 49.	♂	5×3	— 9	— 64
	o		— 8	— 61

The distribution in Nuristan has been discussed under *P. rubidiventris*. In the province of Gardez I found it on May 25 rather numerous in the coniferous forest between Usman-Khel and Saroti Kotal.

In the males from May the testes were at their maximum size and in those collected in the last days of the month the *vesiculae seminales* were much enlarged. In the female from May 9 the follicles were small, but the oviduct rather enlarged. The male taken on May 3 carried, together with the female, small feathers to a nest hole in an oak tree. The hole was 12–15 m. above the ground. On May 25 at Usman-Khel one was carrying food.

The voice I heard as: 'be-dah, 'bi-dah.

(323). *Aegithalos leucogenys* (Moore) – White-cheeked Tit

Orites leucogenys Moore, Proc. Zool. Soc. London 1854: 139 (1855 – Chigha Sarai, Nuristan)

Gusalek and Wama, Nuristan, 15. iii.–1. v. 48.

Weight	5 ♂♂: 6–8 (7,2); 4 ♀♀: 6–7 (6,8)
Wing	5 ♂♂: 57–58 (57,4); 4 ♀♀: 52–55 (54,0)
Tail	5 ♂♂: 53–57 (54,6); 4 ♀♀: 49–52 (50,3)

Iris pale straw-coloured to grey yellow. Bill black. Feet pale horn coloured.

This topotypical series of the White-cheeked Tit was collected in the Pech-Parun Valley in central Nuristan where I saw small parties and pairs in the oak forests several times around Gusalek and Wama. A few times I saw it also in almond scrub above the oak forest at an elevation of 2000 m. In the coniferous forest and deciduous scrub around Pashki (2300 m.) and Stiewe (2600 m.) I did not find it.

In the males and females which were collected in March the gonads were inactive, but a male from April 11 had gonads at its maximum size (5×3). On March 31 and April 22 I saw birds collecting feathers, presumably for the nest, and on April 25 I found a nest with five eggs. It was in an open oak forest at an elevation of 1650 m. The ball-shaped nest was placed in the top of an oak bush $2\frac{1}{2}$ m. high, and it was quite hidden in the foliage. The height of the nest was about 11 cm., the breadth 8 cm. The entrance measured $2\frac{1}{4}$ by $2\frac{3}{4}$ cm. and it was situated near the somewhat flattened upper side of the ball. This was made of dry grass leaves, which on the outside were mixed with moss. The inside was lined with feathers. The pure white eggs were slightly incubated, the weight of four of them was 0,9 g., of the fifth 1,0 g.

The alarm-note is a weak snarl which may remind a little of the voice of the Wren. The call-note I heard as: *üt, üt*.

(324). *Remiz pendulinus caspius* (Pelzam) – Penduline Tit

Estuary of Farah Rud, Seistan

7. iii. 49. ♂ 1×1 we. – wi. 56
9. iii. 49. ♀ $2 \times 1\frac{1}{2}$ — 6 — 52

The badly damaged male specimen shows no black nuchal band and a nearly absent black frontal band which is followed by a broad chestnut band. These characters group it with *caspius*, in which, however, the chestnut band may be more extended. The races of this difficult species were studied recently by VAURIE (1950 and 1952, Am. Mus. Nov. 1459: 51–62, 1549: 1–9). The female collected was moulting the rectrices and some body feathers.

In the tamarisk scrub in the Estuary of Farah Rud we saw on March 7 and 9, 1949, a few small parties of the Penduline Tit of which we collected the specimens mentioned above. Presumably they were winter visitors or migrants on their way to the breeding places in Turkestan. I searched in vain for the local breeding race, the black-headed *R. p. nigricans* which is known only from Iranian Seistan. But I also failed to find the extensive reed beds which are its natural habitat.

Outside Seistan I did not see any Remiz.

(325). *Sitta europaea cashmirensis* Brooks – Brooks' Nuthatch

Gusalek, Wama and Pashki, Nuristan, 19. iii.–24. vii. 48.

Weight 7 ♂♂: 17,2–18,3 (17,6); 4 ♀♀: 18,9–21,0 (19,7)
Wing 7 ♂♂: 82–86 (84,0); 4 ♀♀: 82–84 (83,0)
Bill (bs) 7 ♂♂: 16–19 (17,7) 4 ♀♀: 16–18 (17,0)

I found Brooks's Nuthatch only in the Pech-Parun Valley in Nuristan. A female was collected on March 19 in the oak forest at Gusalek at an elevation of 1850 m. It was the only individual seen during all our stay at this locality. At Wama it was also rather scarce as I merely saw it twice, namely two individuals on April 19 at the upper border of the oak forest and a pair on the 21st up in the deodar forest. At Pashki it was more common and often seen in glades in forests of *Abies*, *Picea*, and *Cedrus* at elevations up to at least 2600 m., but in a few cases I found it also in hazel scrub and poplar groves down in the bottom of the valley. At Stiewe, situated above the forest zone, I did not find it.

In the males collected between April 19 and May 21 the testes were at their maximum and measured from 5×4 to 6×4 and in most of the specimens from May the testes were injected. In two females from May 21 and 23 the oviducts were at their maximum, the follicles rather small, and no calyces were visible, so either the maximum growth of the follicles had not been reached or the birds had completed laying shortly before they were collected. On May 26 I saw a nest hole high up in the trunk of a decayed conifer. When I visited the locality again on June 10 the hole was smoothed with mud which protruded a little from the surface of the trunk.

(326). *Sitta leucopsis leucopsis* Gould – White-cheeked Nuthatch

Pashki, Nuristan, 24. v.–9. vi. 48.

Weight 6 ♂♂: 14,7–15,9 (15,1); ♀: 13,6

Wing 6 ♂♂: 76–79 (77,7); ♀: 73

Bill (bs) 6 ♂♂: 18–19 (18,3); ♀: 16

I found the White-cheeked Nuthatch only around Pashki in Nuristan where it was rather scarce and lived in the same habitats in the coniferous forests as did *S. europaea*, and, as in the case of the latter, is distributed up to the upper limits of the forest. *S. europaea* was seen searching for food on the trunks of the conifers, but *leucopsis* in contrast was nearly always seen in the top of the trees or out on the small branches.

In most of the males collected in May the testes were injected and at about their maximum size (7×5). In the female collected on May 26 the follicles were rather small, the oviduct enlarged but not at its maximum, so, presumably, she had finished laying.

Two nest holes were situated high up in the trunks of conifers. The characteristic bleating note is much weaker as in *S. europaea*.

(327). *Sitta tephronota tephronota* Sharpe – Rock Nuthatch

Synonym: *Sitta neumayer subcæruleus* Meinertzhagen, Bull. Br. Orn. Cl. 58: 96 (1938 – Haibak, Afghan Turkestan)

Faizabad, Badakhshan

10. vii. 48.	♀	6×3	we. 35	wi. 87	bn. 17
	♀		— 35	— 85	— 17
	♀		— 32	— 87	— 16 subad.

Bamian, Central Afghanistan

13. ix. 49.	♂	2×2	— 35	— 86	— 18
15. ix. 49.	♂	2×2	— 35	— 87	— 19
8. ix. 49.	♀	4×2	— 30	— 85	— 17
15. ix. 49.	♀		— 33	— 85	— 17
22. ix. 49.	♀	3×2	— 34	— 81	— 18

Darra-i-Shikari, Central Afghanistan

4. vi. 49.	♂	1 ¹ / ₂ ×1	— 25	— 81	— 15 juv.
16. ix. 49.	♂	1×1	— 34	— 83	— 18

Panjao, Central Afghanistan

14. vi. 49.	♂	1×1	— 32	— 89	— 15 subad.
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Obeh, W Afghanistan

13. vii. 49.	♂	1×1	— 36	— 89	— 18
15. vii. 49.	♂	1×1	— 37	— 89	— —
17. vii. 49.	♂	1× ¹ / ₂	— 36	— 87	— 17 subad.
13. vii. 49.	♀	5×3	— 33	— (85)	— 19

Haibak, N Afghanistan

2. viii. 49.	♂	1×1	— 33	— 82	— 19
	♂	1×1	— 34	— 84	— 19
3. viii. 49.	♀	4×3	— 32	— 84	— 18
	♀	3×2	— 32	— 80	— 18 subad.
	♀	3×2	— 31	— 83	— 18 subad.

Paigah Kotal, N Afghanistan

4. viii. 49.	♂	2×1	— 35	— 82	— 18
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In the specimens from Haibak the upper parts are slightly paler (but not more bluish) and the rust of the under parts is also slightly paler than in the specimens from the other localities in Afghanistan. MEINERTZHAGEN (l. c.) found the same character in his material from Haibak and because of this difference separated the population under the name *subcæruleus*. VAURIE (1950, Am. Mus. Nov. 1472: 19), who has examined a very large material of this species believes, however, that it is best not to recognize *subcæruleus*.

The birds collected from the middle of July to the end of September were moulting.

The Rock Nuthatch is widely distributed in the mountainous parts of Afghanistan but I never saw it in the more fertile valleys of Nuristan.

Badakhshan: I found it rather common in July 1948 in the Kokcha Valley from an elevation of about 2200 m. down to Faizabad and again up through the Warduj and Sanglich valleys up to an elevation of 2500 m.

Central Afghanistan: I saw it in June, August, September, and October in the upper Ghorband Valley (above 2000 m.), Darra-i-Shikari, and the Bamian Valley but not over an elevation of 3000 m., or in the valleys between Shahidan Kotal and Band-i-Amir. In July I saw a single bird at Sar-i-Chashma east of the Unai Kotal, and a few west of this pass between Diwal Kol and Panjao.

Western Afghanistan: I saw a few along the road from Herat to Islam Qala at the Iranian border on July 6; and in the side valley at Obeh east of Herat I found it rather common up to an elevation of about 2700 m.

Northern Afghanistan: I saw it in the last week of July at Qala Nau, and between this town and Bala Murghab, as also at Maimana. In the first week of August it was common around Haibak where it inhabited boulder strewn mountain slopes as well as rock walls in some canyons. It occurred also in the Paigah Kotal where it was collecting nuts from the pistachio bushes. On a drive up the Surkhab Valley on August 6 I found it some kilometres above Pul-i-Khumri and at Doab. MEINERTZHAGEN is therefore incorrect when he presumes that a gap of a hundred miles, in which the Rock Nuthatch is not found, separates the populations at Haibak and Darra-i-Shikari.

All the adults were collected from the beginning of July and later. Their sex organs were in an inactive stage. A family party was seen at Panjao on June 14, while all the other birds were either alone or in pairs. In the middle of July I found an unoccupied nest above Obeh at an elevation of 2300 m.

(328). *Tichodroma muraria nepalensis* Bonaparte – Wall-Creeper

Gusalek, Nuristan

14. iii. 48. ♂ 2×1 we. 13 wi. 102 bn. 19

Bamian, Central Afghanistan

23. ix. 49. ♂ 1×1 — 17 — 103 — 19

4. x. 49. ♂ 1×1 — 19 — 103 — 19 subad.

According to VAURIE (1950, Am. Mus. Nov. 1742: 30) the populations of Afghanistan belong to the darker and longer-winged eastern race, *nepalensis*.

The specimen collected on March 14 is in the prenuptial moult. The two males from September and October are in fresh plumage.

At Gusalek in the Pech-Parun Valley in Nuristan I saw single birds on February 20 and on March 1 and 14. Two of the birds were searching for food among the stones in the river beds. The birds at Gusalek were presumably winter visitors from higher parts of the Hindukush. The same may

have been true of a pair observed at Wama on March 31 and a single bird on April 4. Higher up the valley I saw none, but on the north side of the main range, in Badakhshan, I saw two at Sanglich (2900 m.) on July 16 and one at an elevation of about 4100 m. in the Weran Valley on the 21st. These were undoubtedly on their breeding grounds. – In the region of Bamian in central Afghanistan I saw between September 13 and October 16, 1949, single birds or pairs at several localities all the way from the bottom of the valley up to an elevation of nearly 3500 m., and from Darra-i-Shikari in the east to Band-i-Amir in the west. Some or all of these birds may have been on or near their breeding grounds. – Two single birds at Kabul on January 9, 1948, and January 29, 1949, were, however, more likely to be visitors driven down from the higher mountains by the winter weather.

(329). *Certhia himalayana* – Himalayan Tree Creeper

a. *Certhia himalayana taeniura* Severtzov

b. *Certhia himalayana limes* Meinertzhagen

Synonym: *Certhia himalayana cedricola* Koelz, Proc. Biol. Soc. Washington 52: 65 (1939 – Jalalabad, E Afghanistan)

a. Sauzak Kotal, W Afghanistan

22. vii. 49. ♀ 2×1 we. 8 wi. 67 bs. 17

b. Pashki, Nuristan

23. v. 48. ♂ 8×5 — 9 — 73 — 18

26. v. 48. ♂ 7×4 — 8 — 72 — 16

o — 9 — 70 — 18

30. v. 48. ♂ 7×5 — — 71 — 18

In the specimen from Sauzak Kotal, northeast of Herat, both the upper and under parts are distinctly paler than in the small series from Nuristan. According to VAURIE (1950, Am. Mus. Nov. 1472: 36) the populations in western Afghanistan are identical with specimens of *taeniura* from Samarkand and Ferghana, whereas those from eastern Afghanistan he refers to *limes* (type locality Gilgit), a cline of increasing colour saturation running eastward.

I collected the specimen mentioned in the list from Sauzak Kotal at an elevation of about 2400 m. in the juniper forest. It is in the post juvenile moult. – At Gusalek in Nuristan I saw single specimens on March 1, 8, and 19 which were presumably winter visitors from the upper parts of the valley. At Wama (March 31 to May 5) I did not see it, but at Pashki I found it several times, especially in the higher parts of the coniferous forest at elevations up to 3000 m. In most cases I saw it on the trunks still remaining in areas where the forest had been destroyed by fire.

In three males collected in the last week of May the *testes* were at their maximum size and injected and the *vesiculae seminales* were also enlarged.

(330). *Cinnyris asiatica brevirostris* (Blanford) – Purple Sunbird

On our march in the lower Pech Valley from Sematam to Chigha Sarai on August 7, 1948, I saw a greyish sunbird which undoubtedly was a female or a juvenal of the Purple Sunbird. According to WHISTLER (1945: 289) KOELZ obtained a small series of this species at Kalaigulaman. This locality is in Laghman, southwest of Nuristan.

(333). *Emberiza leucocephala leucocephala* Gmelin – Pine Bunting

Gusalek, Nuristan

3. iii. 48. ♀ 5×3 we. 27 wi. 89 tl. 73

The upper parts of this specimen is more greyish than in a series from West Siberia in JOHANSEN'S collection, but this may only be a case of individual variation.

The Pine Bunting is a winter visitor and passage migrant in Afghanistan. The specimen collected at Gusalek in Nuristan is my only record. It was shot, together with an *Emberiza cia*, from a tree in the cultivated area.

(335). *Emberiza bruniceps* Brandt – Red-headed Bunting

Farah, SW Afghanistan

29. iv. 49. ♂ 8×6 we. 22 wi. 87

Shin Dand, W Afghanistan

28. vi. 49. ♂ 7×5 — 24 — 89

30. vi. 49. ♂ 7×4 — 24 — 89

♂ 8×4 — 25 — 88

Ardewan Kotal, W Afghanistan

6. vii. 49. ♀ 6×3 — 22 — 83

♀ 6×4 — 25 — 83

Herat, 76 km. west of

8. vii. 49. ♀ $1\frac{1}{2} \times 1\frac{1}{2}$ — 13 — — juv.

Tirpul, W Afghanistan

9. vii. 48. ♂ 6×4 — 25 — (86)

♂ 9×5 — 27 — 86

♂ 8×4 — 25 — 87

Obeh, W Afghanistan

13. vii. 49. ♂ 7×4 — 25 — 87

16. vii. 49. ♀ 4×2 — 23 — 81

Bala Murghab, N Afghanistan

24. vii. 49. ♂ 7×4 — 25 — (84)

♀ 4×2 — 23 — 80 juv.

Faizabad, Badakhshan

10. vii. 48. ♂ 9×7 — 24 — 86

Bamian, Central Afghanistan

16. ix. 49. ♂ 1×1 — 22 — 85 subad.

15. x. 49. ♂ $1 \times 1\frac{1}{2}$ — 25 — 85 subad.

STRESEMANN found (1924, Orn. Monatsber. 32: 42) that *E. bruniceps*, as *E. melanocephala*, moults its body feathers twice a year, but this was denied by WITHERBY (1949, Handb. Br. Birds 1: 122). Some of my specimens show that the males must moult twice although the moult may be partial, involving only some body feathers.

In an adult male from July 9 the wing feathers and rectrices are very worn, except two new, growing rectrices. On the back, among worn feathers of the nuptial plumage, there are some new ones which are grey-brown with dark brown median streaks. These feathers will be changed again when the birds assume the nuptial plumage. Among the worn chestnut feathers of the crown there are also some new ones, with a grey-brown tinge and dark brown median streaks, which will also be replaced at the prenuptial moult. The new chestnut throat feathers have white fringes. It is possible that these fringes will wear off so that these feathers may not be replaced at the prenuptial moult.

In another adult male from June 30 in which the mantle is more advanced the new feathers on the back are similar to those of the female. New feathers are breaking out on the crown and throat but their pattern cannot be seen.

Finally in a third adult male from July 24 the plumage of the back is still more like that of a female, and the new throat feathers are as in the male mentioned first.

These specimens show that the adult males go through a postnuptial moult acquiring a plumage which to some extent is similar to that of the female. This is shown by the feathers of the mantle which have greyish brown, not olive, fringes, and by the crown feathers which are greyish brown with dark brown median streaks.

In a male collected on April 29, 1949, the date of the first record, the testes were injected and measured 8×6 which is nearly maximum size, but also in birds from the end of June and the beginning of July the testes were about of this size and in some of the specimens the *vesiculae seminales* were enlarged as if the birds were still in the active stage. All the females were collected in July and had inactive sex organs. Courtship flights were seen from the beginning of May.

The Red-headed Bunting is widely distributed as a breeding bird in Afghanistan. It is common in the cultivated areas around the towns and villages and in scrub but it avoids the higher central parts of the country and the wooded Nuristan.

Eastern Afghanistan: During the breeding season I found it in the valleys between Kabul, Maidan, Gardez, and Kandahar.

Western Afghanistan: West of Kandahar I did not see it again until Farah. In the Hari Rud Valley it was rather common from Tirpul in

the west to Obeh in the east. Further east of Kwaja Chisht I did not find it. At Obeh it was most numerous in the fields in the main valley, but it occurred also rather commonly in the scrub upward through the side valley to an elevation of about 2000 m. In the Ardewan Kotal north of Herat it was common in the cultivated fields at 1600 m.

Northern Afghanistan: It was less numerous in this part of the country but I saw it here and there in cultivated areas along our route from Qala Nau over Bala Murghab, Maimana and Andkhui to Haibak. From Andkhui to west of Balkh it was especially scarce. We saw it also at Chashma-i-Sher and in the Surkhhab Valley. In Badakhshan I found it in the Kokcha Valley from Ispismir at an elevation of 1800 m. down to Faizabad and again up the Warduj Valley to Robat at about 2300 m.

Central Afghanistan: It was common in the Ghorband Valley, but I did not record it on a short visit to the Bamian Valley on June 5-6, and not in eastern Hazarajat between the Unai Kotal and Panjao.

Migration: I made very few observations on the migration of this species. At Farah the first individuals were seen on April 29, 1949. There seems to be no spring migration through Nuristan, where it was neither seen during the breeding season. At Bamian a few individuals were recorded on September 15-17 and a single one on October 15, 1949.

(336). *Emberiza stewarti* Blyth – White-capped Bunting

Wama and Pashki, Nuristan, 12. iv.-9. vi. 48.

Weight 13 ♂♂: 12,9-17,0 (15,7); 5 ♀♀: 13,0-16,7 (14,6)

Wing 13 ♂♂: 77-82 (79,2); 5 ♀♀: 71-76 (73,4)

Obeh, W Afghanistan, 15. vii. 49.

Weight ♂♂: 14, 17

Wing ♂♂: 77, 82

The two adult males collected on July 15 at Obeh in western Afghanistan are badly worn. The postnuptial moult had just started, some of the outer secondaries are new and a few body feathers are growing. The chestnut of the upper parts is much paler than in the spring specimens from Nuristan, but this difference is probably caused through wear.

The observations in the spring of 1948 showed that the White-capped Bunting is a summer visitor, not a resident, in Nuristan. I did not see it during all the time I stayed at Gusalek and during the first period at Wama, but on April 12 the first two pairs were seen there. After that date, pairs or single birds were common until we left Wama on May 6. In a few cases I also saw some small flocks of 5-6 individuals which may have been birds still on passage. On April 25 I collected a female and a male out of such a

flock. The testes of the male measured 3×2 against 5×4 to 6×4 in other males from the same time but occurring single or in pairs.

I found the birds throughout the most open parts of the oak forest and in the scrub around the small cultivated fields. Although we left before the breeding season began, I think they really stayed there to breed for the males were singing all over, and, in a male from May 3 the testes measured 8×5 which is near the maximum. In females collected on April 28 and May 1 the follicles were still small.

At Pashki, higher up the valley, it inhabited the open and very arid *Pinus gerardiana* forest on the mountain slopes exposed to the south east, and in the mixed oak and *gerardiana* forest on the steep rocks just over the bottom of the valley. I saw a few birds in other habitats, but only exceptionally, for instance on July 25 two pairs were seen in scrub of rose and junipers above the tree limits at an elevation of 3200 m.

In males collected at Pashki between May 22 and June 9 the testes were injected and measured from 6×5 to 9×7 , and the *vesiculæ seminales* were also much enlarged. In two females from May 17 and 21 the sex organs were still rather far from the maximum size, so the breeding season seems to begin very late.

I did not find the species at Stiewe, situated above the tree limit and the highest village in the valley.

Outside Nuristan I found the White-capped Bunting only at Obeh, east of Herat, where a few lived at an elevation of 2000 m. in a very rocky valley with a few trees and a little scrub. On the surrounding desolate mountain slopes it did not occur. Previously it was known only from the eastern parts of Afghanistan. As it inhabits the eastern parts of Iran, however, it was not surprising to find it at Obeh.

(338). *Emberiza buchanani buchanani* Blyth – Grey-necked Bunting

Synonym: *Emberiza Huttoni* Blyth, Jour. Asiat. Soc. Bengal 17: 811 (1849 – Afghanistan)

Tera Kotal, Gardez, E Afghanistan

26. v. 49. ♀ we. 20 wi. 79

Sar-i-Chashma, Maidan, E Afghanistan, 9. vi. 49.

Weight ♂♂: 19, 19; ♀: 20

Wing ♂♂: 82, 88; ♀: 80

Panjao, Central Afghanistan

14. vi. 49. ♂ 8×5 — 20 — 88

Shibar Kotal, Central Afghanistan

2. vi. 49. ♀ 6×4 — 20 — 84

Bamian, Central Afghanistan, 6.–24. ix. 49.

Weight 6 ♂♂: 18–26 (22,6); ♀♀: 19, 19, 24

Wing 6 ♂♂: 83–89 (86,2); ♀♀: 82, 84

Obeh, W Afghanistan, 13.–15. vii. 49.

Weight ♂♂ ad.: 22; juv.: 21; ♀: 20

Wing ♂♂ ad.: 85; juv.: 86; ♀: 81

The four breeding males collected in Central Afghanistan in June and July differ distinctly from five males collected in Iran (Zagros and the mountains southeast of Gorgan). Although these specimens are in the same stage of plumage, the upper parts in the Afghan birds are much darker, almost dark grey, not pale grey brown. In this respect the Afghan breeding birds are intermediate between the very pale Iranian populations and the northeastern dark subspecies, *obscura*, but considerably nearer to this last form. The most convenient solution, from the point of view of the nomenclature, would be to have one name for the western, pale populations, and another one (*obscura*) for the eastern, dark one, and to consider the Afghan populations as intermediate. According to TICEHURST (*Ibis* 1939: 350) the name "... *huttoni* has the same basis as *buchanani*, and both refer to the Afghan-Persian form". As, however, the Afghan populations are closer to *obscura* we cannot unite them with the Iranian populations under the name *buchanani* (= *huttoni*), but have to restrict this name to either the Iranian or the Afghan birds, and I believe we have to use it for the Afghan birds since Afghanistan is given as the type locality for *huttoni*. For the Iranian birds we have then to use the name *cerruttii* De Filippi (1863, type locality Persia).

I have not been able to compare the autumn specimens from Bamian with material of autumn birds from Iran or from the range of *obscura*. Most likely however, they too belong to the intermediate race.

In the females collected on June 9 and in the males from June 14, and July 13, the postnuptial moult had started. All the birds collected at Bamian in September had completed this moult, except a female from the 23rd in which the first primary and some rectrices are still not renewed.

The Grey-necked Bunting is widely distributed in the mountainous parts of Afghanistan where it inhabits desolate mountain slopes. During the breeding season I found it only at the localities in the list of specimens. In the valley south of Tera Kotal, north of Gardez, it was rather common on May 26 and was singing. – In Central Afghanistan it was numerous on June 2 on the slopes around the Shibar Kotal (3000 m.), especially on an area with tussock grass. In the Maidan Valley it was common in the middle of June on the slopes around Sar-i-Chashma, and up to an elevation of

3200 m. along the road to the Unai Kotal. West of that I found a few again at Panjao.

In western Afghanistan I saw it only in the side valley at Obeh where it lived on the slopes above the scrub vegetation. – I did not see it during my short travels in northern Afghanistan or during my long stay in Nuristan.

The observations in the field and the inspection of the sex organs gave no clear idea of the duration of the breeding season. In the females collected at the end of May and the beginning of June the follicles were small, and the oviducts far from their maximum size. The largest testes seen (8×5) were in a male collected on June 14; this male had also enlarged *vesiculae seminales* but on the other hand it had already started to moult. The only juvenal was collected on July 13.

I saw a varying number at Bamian in the autumn between September 6 and 24. On some days there were none, but on others the bunting was rather numerous, so I got the impression that there was some migration through the valley. After the 24th and until we left on October 17 I saw none on all my excursions to the surrounding mountain slopes.

(339). *Emberiza cia par* Hartert – Meadow Bunting

Gusalek, Pashki, and Stiewe, Nuristan, 1. iii.–24. vii. 48.

Weight 17 ♂♂: 18,9–26,1 (21,9); 8 ♀♀: 18,9–22,5 (20,3)

Wing 18 ♂♂: 82–87 (84,7); 8 ♀♀: 75–80 (77,5)

I have not been able to compare this series to *stracheyi* (type locality Kumaon) or to topotypical *par* from Transcaspia, but HELLMAYR (1929, Field Mus. Nat. Hist. 17, no. 3: 63) found that the populations of Chitral and Gilgit, just east of Nuristan, are intermediates between these two subspecies, but nearest to *par*. On geographical grounds I therefore refer the population of Nuristan to this last race.

In Nuristan the Meadow Bunting was a common breeding bird in the upper parts of the Parun Valley. In the Pech Valley down at Gusalek (1000 m.) I observed some passage between March 1 and 17. The birds were in small flocks of half a dozen or less in the fields in the bottom of the valley. Four specimens collected were all males and exceedingly fat. I never saw it during the last part of our stay at Gusalek and during our stay at Wama (31. iii–5. v.). – At Pashki, however, it was the most common bunting, which I found from the bottom of the valley (2300 m.) up through the coniferous forests to the scrub above the forest at an elevation of 3200 m. In the coniferous forest it mostly inhabited scrub clad glades. In

the typical *Pinus gerardiana* forest, where *E. stewarti* was common, the Meadow Bunting did not live. As a matter of fact, these two buntings were only exceptionally found in the same habitat. – The Meadow Bunting was also rather common at Stiewe above the limits of the forest, in places where some scrub was to be found even though it consisted merely of some low rose or barberry bushes.

In Badakhshan it inhabited the Kokcha Valley, where I found it from Nau (2750 m.) down to Ispismir (2000 m.); and the Warduj and Sanglich valleys, where I saw it from below Robot (2300 m.) up to above Zebak (2400 m.).

In the males collected in March the testes were small (2×1). In the large series from the middle of May to late June they were injected, and at or very near their maximum size (7×5 to 9×7). Also the size of the *vesiculae seminales* indicated that the males were in the active stage. In seven females collected between May 12 and June 22 the sex organs were more or less enlarged but in one only, from June 9, the oviduct was at its maximum and one of the follicles had gone into the period of maximum growth. The birds were in pairs when we arrived at Pashki on May 8, but judging from the inspection of the sex organs the laying may start as late as in June and presumably it can continue until late July because on the 24th I saw a pair behave as if ready to lay, and in a male collected on the same day the sex organs were at their maximum. On three occasions I saw birds flying with nest material, it was on May 28, and June 22 and 23; and on July 1 I saw in Badakhshan a just fledged young.

(341). *Emberiza schoeniclus pallidior* Hartert – Reed Bunting

Estuary of Farah Rud, Seistan

26. ii. 49. ♂ 1×1 wi. 81

This specimen agrees with a series from Tomsk, which according to JOHANSEN is typical *pallidior*. It is my only record of this species in Afghanistan. SARUDNY described a thick-billed subspecies, *korejewi* from Persian Seistan, but neither this nor any other subspecies has been found in Afghanistan during the breeding season.

(344). *Serinus pusillus* (Pallas) – Gold-fronted Finch

Pashki, Nuristan

3. vi. 48. ♂ 5×3 we. 9 wi. 76

12. vi. 48. ♂ 6×4 — 10 — 74

Pashki, Nuristan

25. vii. 48.	♂		we. 10	wi. 74	juv.
17. v. 48.	♀	4×2	— 9	— 71	
22. v. 48.	♀	4×3	— 10	— 71	

Usman Khel, Gardez, E Afghanistan

25. v. 49.	♂	5×4	— 10	— 76	
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Band-i-Amir, Central Afghanistan

28. ix. 49.	o		— 12	— 72	juv.
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The Gold-fronted Finch is a breeding bird in the mountainous eastern, central and western parts of Afghanistan. In Nuristan I found it around Pashki at elevations from about 2600 m. to well over 3100 m. in scrub clad glades in the coniferous forests, and in the scrub above the forest. I saw it also a few times in June on the mountain slopes around Stiewe. In two females collected at Pashki on May 17 and 22 the sex organs were rather small. In two males from June 3 and 12 the testes were injected and about their maximum size.

In Badakhshan I noticed it in July at several localities in the Weran, Kokcha, Warduj, and Sanglich valleys at elevations between 2300 and 3300 m. — At Usman Khel in the province of Gardez I saw on May 25, 1949, a few in the open deodar forest 6 km. north of Saroti Kotal. — It breeds also in western Afghanistan where on July 15 I saw a pair in the scarce vegetation among scattered junipers on a mountain slope at 2500 m. above Obeh.

Outside the breeding season I saw two (family-)parties on the stony slopes above one of the lakes at Band-i-Amir in central Afghanistan. A bird collected here is moulting the immature plumage.

(346). *Carduelis carduelis paropanisi* Kollibay — Goldfinch

Stiewe, Nuristan

24. vi. 48.	♂	7×4	we. 17	wi. 82	
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Bamian, Central Afghanistan

13. ix. 49.	♀	2×1	— 18	— —	
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Sar-i-Chashma, Maidan, E Afghanistan

9. vi. 49.	♂	6×4	— 16	— 83	
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Panjao, Central Afghanistan, 15. vi. 49.

Weight	♂♂: 16, 17, 18, 19
Wing	♂♂: (79), 81, 82, 83

Obeh, W Afghanistan, 11.–15. vii. 49.

Weight	♂♂: 16, 16, 17; ♀♀: 16, 17, 18, 19
Wing	♂♂: 80, 81, 81; ♀♀: 78, 78, 78, 80

The Goldfinch is widely distributed in Afghanistan but it seems to be rather scarce everywhere. Outside the breeding season some irregular migration takes place.

In Nuristan I found it only at Stiewe where I collected a male with testes in the active stage on June 24. It was taken in birch scrub near cultivated fields in the bottom of the valley at an elevation of 2600 m. It was together with a second individual, presumably the female. – In Badakhshan I saw two single birds in July in the Kokcha Valley, one at 2000 m., and one down between Faizabad and Barak.

In June 1949 I saw a few around Sar-i-Chashma in the Maidan Valley, on June 15 a flock of seven individuals was seen west of the Unai Kotal in boxthorn scrub. I thought then it was a family party but four of the party were collected, and they were all adult males with enlarged *vesiculae seminales*, and *testes* which measured about 5×4 . – In the side valley at Obeh, east of Herat, it was less scarce than at the other localities, and it inhabited the tree and scrub clad bottom of the valley as well as the dry mountain slopes from an elevation of about 1800 m. up to 2400 m. Between July 11 and 16 I found here a young that had just fledged, as well as a female with an egg in the oviduct. I believe, however, that these dates represent the end of the breeding season for all the birds, except a female (not that in laying condition), had started to moult.

In the autumn of 1949 at Bamian I observed no migration but only two single birds at 2950 and 3100 m. on September 13, and another single one and a pair at 3100 and 2900 m. on October 4.

(347). *Carduelis flavirostris korejawi* (Sarudny & Härms) – Twite

Shibar Kotal, Central Afghanistan

2. vi. 49.	♂	6×4	we. 13	wi. 71
7. vi. 49.	♂	4×4	— 14	— 75
	o		— 13	— 73

Bamian, Central Afghanistan

11. x. 49.	♀	$2 \times 1\frac{1}{2}$	— 12	— 73
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Unai Kotal, Central Afghanistan

10. vi. 49.	♂	7×5	— 13	— 72
17. vi. 49.	♂	5×4	— 13	— 76
10. vi. 49.	♀	5	— 13	— 71

Panjao, Central Afghanistan

14. vi. 49.	♀	5	— 14	— 71
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I have not been able to compare this series with material of *brevirostris* (terra typica Erzerum) and *korejawi* (Turkestan) but both MEINERTZHAGEN

(Ibis 1938: 502) and VAURIE (1949, Am. Mus. Nov. 1424: 19) refer the Afghan populations to *korejewi*.

When I went through the Shibar Kotal on June 2 and 7, 1949, I saw a few Twites on slopes partly covered with grass at an elevation of 2600 m. In two males collected there the testes were at or near their maximum size.

On June 10 I found a few pairs and parties of three to four birds on both sides of the Unai Kotal. Two males collected had testes at maximum size, and a female was about to lay as was one collected on the 14th at Panjao.

During all our stay at Bamian in the autumn of 1949 I saw it only once, namely on October 11 when a few came to drink at a small spring high up in one of the side valleys. The elevation was about 3000 m.

(348). *Carduelis cannabina bella* (Brehm) – Linnet

Sauzak Kotal, W Afghanistan

22. vii. 49. ♀ 2×3 we. 17 wi. 81 juv.

This specimen was collected at an elevation of 2300 m. just south of the pass. A pair was seen on July 14, 1948, between Supian and Robot in the Warduj Valley, Badakhshan.

(349). *Leucosticte nemoricola altaica* Eversmann –
Stoliczka's Mountain-Finch

Pashki, Nuristan, 11. vi. 48.

Weight ♂♂: 20, 20; ♀♀: 18, 18, 19

Wing ♂♂: 100, 100; ♀♀: 90, 92, 95

Stiewe, Nuristan

16. vi. 48. ♀ 6×3 we. 21 wi. (60) albino

22. vi. 48. ♀ 1½ — 19 — 93

Weran Valley, Badakhshan

21. vii. 48. ♂ 9×6 — — — 98

♂ 8×6 — — — 93

♀ — — — 94

Miyan Deh, Badakhshan

1. vii. 48. ♂ 9×6 — 21 — 95

♀ laying — 20 — 90

During the skinning, growing feathers were noticed on the crowns of the three females collected on June 11. In one of these the old, worn (? juvenal) feathers were pale earth brown with a trace of dark median streaks, whereas the new feathers were darker brown with more pronounced black brown median streaks.

I found Stoliczka's Mountain-Finch only in the upper parts of the Parun Valley in Nuristan and in the higher valleys on the north side of the main

mountain range. On June 11 I came across a flock of half a hundred individuals at Pashki in Nuristan which were feeding in a large open area at an altitude of 2900 m. near the upper limit of the coniferous forest. In the two males collected there the testes were injected and at their maximum size (9×6 mm.), and the *vesiculae seminales* were much enlarged. In three females collected the sex organs were also enlarged but still far from the maximum size. – During the last week of June it was numerous on the *Artemisia* clad mountain slopes around Stiewe where it occurred in flocks which consisted of from a few up to a hundred individuals. In a female from the 22nd the follicles were slightly enlarged but the oviduct was far from the laying stage.

In Badakhshan I found it in July at several localities in the Weran, Kokcha, Warduj, and Sanglich valleys at elevations between 2300 and 4000 m. On July 1 it was both in pairs and in flocks in the fallow fields around Miyan Deh (2500 m.) in the Kokcha Valley. A female collected here had an egg in the oviduct. As all the remaining follicles were quite small, and three calyces were visible on the ovary, the full clutch would have consisted of only three eggs. Another female collected on July 21 at 3600 m. in the Weran Valley had completed laying. Three males collected on July 1 and 21 had injected testes at their maximum size (9×6) and enlarged *vesiculae seminales*. All these observations seem to show that the breeding season does not start before July.

(350). *Leucosticte brandti pamirensis* Severtzov –
Brandt's Mountain-Finch

Weran Valley, Badakhshan, 21. vii. 48.

Wing ♂♂: 110, 114; ♀: 105

These three Afghan birds are considerably darker on the upper parts than three winter specimens of nominate *brandti* from Turkestan to which I have compared them, and the pink edges of the upper wing coverts are narrower. These differences are characteristic of *pamirensis*.

I found Brandt's Mountain-Finch only in the Weran Valley in Badakhshan. It occurred there together with *L. nemoricola*, at an elevation of 3600 m. on stony mountain slopes with scarce vegetation. The female collected on July 21 had an oviduct of maximum size, and 3 (–4) calyces were visible on the ovary which contained only small follicles, so the female had just completed laying. Two males from the same date had injected testes at maximum size (10×6 and 9×5) and large *vesiculae seminales*.

This mountain-finch had previously been taken in Afghanistan by KOELZ only.

(351). *Rhodopechys sanguinea sanguinea* (Gould) – Crimson-winged Finch
Panjao, Central Afghanistan, 12.–16. vi. 49.

Weight ♂♂: 34, 44; ♀♀: 32, 33

Wing ♂♂: 105, 106; ♀♀: 97, 103

Although the Crimson-winged Finch is known from several localities in western, central, and northeastern Afghanistan I saw it only at Sar-i-Chashma in the Maidan Valley and around Panjao in Hazarajat. On June 19, 1949, parties of 2, 4, and 4 individuals were feeding among flowering *Salvia* on the mountain slopes at Sar-i-Chashma. The crimson wing patches agreed rather well with the violet to red colours of the *Salvia*. – On June 12 and 16 I saw two pairs and a flock of 5 individuals on more fertile patches on the lower parts of the else very desolate mountain slopes at Panjao. The elevation was about 2700 m. In one male the testes were of medium size (6×4 mm.), in another about maximum (11×6 mm.). In the two females the oviduct was enlarged but far from the maximum size. One of them seemed to have been incubating.

(352). *Rhodopechys mongolica* (Swinhoe) – Mongolian Desert Finch

Bamian, Central Afghanistan, 5. vi. 49 and 20. ix.–4. x. 49.

Weight 16 ♂♂: 18–24 (20,9); 10 ♀♀: 19–23 (20,6)

Wing 13 ♂♂: 89–95 (91,8); ♀♀: 87, 89, 89, 94

Shibar Kotal, Central Afghanistan

2. vi. 49. ♂ 7×4 we. 21 wi. 90

♂ 10×5 — 21 — 92

♂ 9×7 — 20 — 91

Panjao, Central Afghanistan

16. vi. 49. ♂ 7×5 — 21 — 92

♀ 1 — 19 — 86

Dr. VAURIE has kindly identified these specimens as belonging to *Rh. mongolica*. All the adult autumn birds collected between September 8 and October 4 are in varying stages of complete moult. The body feathers are all new but many that were still growing could be seen on the inside of the skins. The specimens show some individual variation as to the colours of the upper parts which vary from greyish to pale brownish. In the greyish specimens the dark median streaks are also better marked. There is, however, a smooth transition from one type to the other.

On June 2, 1949, I found the Mongolian Desert Finch rather numerous, in pairs or in bands of 3–4 individuals, in a valley at an elevation of 2900 m. near the Shibar Kotal. In the bottom of the valley there were some small springs, and very low *Scirpus* grew here and there. The home of this finch consists of such surroundings, as those in this valley and in the cultivated

fields on the slopes which surround it. – On the 5th I found it in a narrow stony side valley at Bamian. Apparently they had their nests there in a vertical wall of conglomerate. The next day I saw several pairs and small flocks at an elevation of 2800 m. in a broad valley west of Bamian. – On June 16 I saw three birds at a spring (elevation 2950 m.) near Panjao in Hazarajat. There were here a few cultivated fields surrounded by desolate mountain slopes with plants of the *Artemisia* community.

The flocks observed at Bamian during the autumn represented probably the breeding birds of the region. They were always found at the same places but only at a few localities. One of these localities consisted of the narrow valley where I had seen them during the breeding season.

The breeding season seems to be June, or includes June, for the birds collected in this month had testes of about maximum size (7×4 to 10×5), and some of them had much enlarged *vesiculae seminales*. A female from June 5 was just about ready to lay, and one from the 16th with an oviduct of maximum size had presumably just finished laying.

The voice I rendered as: 'djü-vüid or 'dju-vüid alternating with 'djudju-vü.

(353). *Rhodopechys githaginea crassirostris* (Blyth) – Trumpeter Bullfinch
Carpodacus crassirostris Blyth, Jour. As. Soc. Bengalen 16: 476 (1847 – Afghanistan)

70 km. north of Shin Dand, W Afghanistan

1. vii. 49. ♂ $1 \times \frac{1}{2}$ we. 19 wi. 86 juv.

Dr. VAURIE has kindly examined this immature specimen, and found it to be a *Rh. githaginea*. He writes: "The bill is not so thick or so large as it is usually in this species. It is difficult to be dogmatic about subspecific identification with only one immature specimen, but it seems to be *crassirostris*."

The specimen was collected from a party of four. One or two of the other birds were adults with much red colours in the plumage. The family party lived in a desolate hilly country with stony slopes.

For the distribution of this and the preceding species in Afghanistan see map by VAURIE (1949, Am. Mus. Nov. 1424: 31).

(354). *Rhodopechys obsoleta* (Lichtenstein) – Lichtenstein's Desert Finch
Qala Nau, N Afghanistan

23. vii. 49. ♂ 6×5 we. 25 wi. 88

♀ laying — 26 — 82

Bala Murghab, N Afghanistan

25. vii. 49. o — 24 — 90 (♂)

I found Lichtenstein's Desert Finch only at the two localities mentioned in the list. The two specimens from Qala Nau were a pair which, together with a second pair, lived in the hotel garden. The female had an egg in the oviduct. In spite of the active stage of the gonads, both male and female had just started to moult, the female had some new body feathers and the male new inner secondaries.

At Bala Murghab the only individual seen was the male collected. It was singing perched in a tree at the side of the river. The song of this bird is fine, not unlike that of a thrush.

(355). *Carpodacus erythrinus ferghanensis* (Koslova) – Common Rosefinch
Pashki, Nuristan

11. vi. 48.	♂	6×4	we. 22	wi. 82
12. vi. 48.	♂	8×5	— 22	— 84

Stiewe, Nuristan

19. vi. 48.	♂	10×7	— 21	— 83
	♀	2	— 21	— 80

Tilli, Badakhshan

18. vii. 48.	♂	12×7	— 22	— 86
	o		— 21	— 85

Panjao, Central Afghanistan, 12.–17. vi. 49.

Weight	9	♂♂: 20–22 (20,9);	♀♀: 23, 25, 26, 26
Wing	10	♂♂: 82–88 (84,1);	♀♀: 82, 82, 83, 84

VAURIE (1949, Am. Mus. Nov. 1424: 36) has examined large series from every important part of the range of this species, and refers all the specimens collected by KOELZ in Afghanistan to *ferghanensis*, the subspecies breeding in the country. As, however, both nominate *erythrinus* and *kubanensis* seem to be found as winter visitors in India, these subspecies may also occur as passage migrants in Afghanistan. I have not been able to compare my specimens with adequate material, but as presumably they are all breeding birds I follow VAURIE in calling them *ferghanensis*.

None of the specimens are moulting. Several of the breeding males are in hen plumage, and two are in a plumage which is between that of a male and a female (and they are not moulting). One of these males, collected on June 15, has a fully adult plumage, except for a breast band of brownish feathers. In a second one from the same time of the year the red colour is very weakly developed on the mantle and on the upper wing. On the abdomen some of the feather edges are yellowish brown instead of pink.

In Nuristan I found the Common Rosefinch in the higher parts of the Parun Valley. Although I had collected there, at Pashki, from May 8 I did not see the first individual until June 9. The following days I saw a few

more, and on the 12th some small flocks numbering up to 8 birds. All these birds were seen at localities which I had visited several times previously, so I presume the birds really did not arrive until the beginning of June. I found them in scrub or isolated conifers in glades in the forest at elevations of about 2600 m. But if they remain to breed there, I cannot prove it because we had already left by June 14. Two males collected had enlarged testes but not of maximum size. – During the last half of June I found a few around Stiewe, inhabiting scrub along the river or along the small brooks in the side valleys. At Pashki I heard only indications of the song, but at Stiewe they were in full song. In a female from the 19th the sex organs were enlarged but still far from the maximum. In a male from the same date the testes were large as were the *vesiculae seminales*. On our return journey the species was seen below Stiewe on July 23.

In July I found it rather common at altitudes between 2400 and 3400 m. in the Weran, Kokcha, and Sanglich valleys in Badakhshan. Around Miyan Deh (2600 m.) it was singing everywhere on July 1 from willows, scrubs, and sometimes from the bare rocks, and on the 18th I found it just as common in hedges around the fields at Tilli (2700 m.). In two males from the 18th the testes and *vesiculae seminales* were at their maximum size.

It breeds also in eastern Hazarajat where in the middle of June, 1949, I saw it in scrub or gardens at a few localities between Farakhulum and Panjao (3000–2700 m.). At Panjao it was rather numerous in scrub along the river. The breeding season seems to be earlier here than in Hindukush in the northeastern parts of the country for most of the males from the middle of June had testes at, or near, the maximum size (10×6), and their *vesiculae seminales* were much enlarged, and three out of four females collected June 13–17 were in laying conditions. A nest in a *Lonicera* bush found on June 16 contained two eggs, and three on the next day. The female collected then would have laid a fourth egg but presumably not more.

I did not find the Common Rosefinch outside of these three regions: Nuristan, Badakhshan, and eastern Hazarajat.

(356). *Carpodacus synoicus salimalii* (Meinertzhagen) – Sinai Rosefinch
Erythrina synoica salimalii Meinertzhagen, Bull. Br. Orn. Club 58: 95 (1938 – Akrobat, (= Aq-Ribat), Bamian, Afghanistan)

Bamian, Central Afghanistan, 5.–6. vi. and 13. ix.–12. x. 49.

Weight 9 ♂♂: 19–23 (20,7); ♀♀: 19, 24

Wing 9 ♂♂: 92–101 (97,4); ♀♀: 92, 94

I have not been able to compare this topotypical series with material of any other subspecies, but VAURIE (1949, Am. Mus. Nov. **1424**: 46) has recently examined a series of *salimalii* and found it to be distinct.

Four worn specimens from June in the above series are more greyish brown, less pure grey, on the upper parts than the specimens from September and October in fresh plumage. In the latter many body feathers were still growing.

A male collected on June 6 and with enlarged testes (8×5) is in hen plumage except for an indication of rose on the breast. Another male collected on September 16 had very small testes ($1/2 \times 1/2$) and tawnier edges on the outer web of the secondaries than the other specimens. It is undoubtedly a young male of the year. It is moulting the body feathers, and the new ones are like those of a female and of birds in the first juvenile plumage.

I did not find the Sinai Rosefinch outside of the Bamian Valley where it was first found by MEINERTZHAGEN, but KOELZ found it in the mountains 150 miles westnorthwest of Bamian (VAURIE l. c.). I never saw it down in the broad main valley but only between 2600 and 3050 m. up in the small side valleys, especially where these narrow to form canyons.

The breeding season includes June for in three males collected June 5 and 6 the testes were at, or near, the maximum size (from 8×5 to 11×5). One of them had very enlarged *vesiculae seminales* and its mate, which was collected also, had enlarged sex organs but was still not in laying condition.

In the autumn I found the birds at the same rock walls as I found them in June, and only there.

(357). *Carpodacus rhodochlamys grandis* Blyth – Red-mantled Rosefinch

Synonym: *Carpodacus rhodochlamys bendi* Koelz, Auk **66**: 209 (1949 – Burchao Pass, Bend-i-Turkestan)

Pashki, Nuristan, 20. v.–3. vi. and 25. vii. 49.

Weight ♂♂: 31, 32, 35, 36; ♀♀: 31, 35, 35

Wing ♂♂: 89, 89, 90, 92; ♀♀: 87, 90, 91

I have not been able to compare this series with other material, but VAURIE (1956, Am. Mus. Nov. **1786**: 15) who has recently discussed its subspecies, states that *bendi* is best considered a synonym of *grandis*.

A male in brown plumage collected on June 3 is apparently subadult for its wing feathers are much more bleached and worn than in the other males. It was, however, undoubtedly ready to breed for its testes were injected and much enlarged (9×5) as were the *vesiculae seminales*. It was collected together with a subadult female with slightly enlarged sex organs. Another

male collected on May 21 is adult because its wing feathers are similar to those of birds which are apparently old ones, and the rest of its plumage is also as in old males except for a little area with brown feathers on the abdomen.

I observed the Red-mantled Rosefinch only at Pashki where it occurred at altitudes between 2500 and 3000 m. It was a scarce bird, however, which I saw only on a few occasions. First I saw on May 18, 1948, two single birds feeding on the floor in the *Pinus gerardiana* forest, then on the 20th and 21st and on June 3 a few pairs or single birds in open parts of the other coniferous forests, and on July 25 a single one in scrub at an elevation of 3000 m.

The breeding season seems to be rather late, presumably July, for in three females taken between May 20 and June 3 the sex organs are only slightly enlarged and in three males from the same period the testes had not fully reached the maximum size as in the male from July 25 in which the *vesiculae seminales* were also much enlarged.

(361). *Coccothraustes coccothraustes humii* Sharpe – Hawfinch

Obeh, W Afghanistan

15. vii. 49. ♂ 8×5 we. 49 wi. 103

I have borrowed four adult males from the British Museum collected in Punjab and Rawal Pindi which Mr. F. C. FRASER kindly informs me agree well with the type of *humii* (from Attock, northwestern Punjab, March 1869) although they are not identical with it. A male from Topi Rak, Rawal Pindi, March 26, 1926, which apparently comes nearer to the type, agrees very well with my specimen from Obeh, except for a slightly paler crown.

I saw three or four Hawfinches on July 12 at an elevation of 2200 m. above Obeh and east of Herat. They were on slopes partly covered with bushes with red stone fruits. On the 15th I saw a small party again at the same locality.

The only previous record of the Hawfinch in Afghanistan is that of a specimen which was "evidently obtained by GRIFFITH on 21 April 1839, at the 'Khossik Pass', as appears from a MSS. list of birds forwarded to the British Museum by the ship Worcester, but this specimen can no longer be traced" (WHISTLER 1945: 113). I have not been able to find this pass on the maps available to me, but on April 21, 1839, GRIFFITH proceeded from Dund-i-Golai to Killa Pootollah on his way from Chaman to Kandahar. "The road was good over an open, dry, level country, but intersected with small cuts" (GRIFFITH 1847: 347). In this country he presumably did not

collect any Hawfinchs, and there is no pass, but he may have collected one a few days earlier when he passed the Bolan Kotal (Khojak) where it is known to occur. In such a case, however, it was not collected in what is now Afghanistan.

(362). *Petronia petronia intermedia* Hartert – Rock Sparrow

Petronia petronia intermedia Hartert, Nov. Zool. 8: 324 (1901 – Kashmir (type from Gilgit) and Kandahar)

Maimana, NW Afghanistan

27. vii. 49. ♂ 2×1 we. 36 wi. 102

Panjao, Central Afghanistan

14. vi. 49. ♀ 5×3 — 30 — 98

Darra-i-Shikari, Central Afghanistan

4. vi. 49. ♂ 7×4 — 37 — 102

Bamian, Central Afghanistan, 20. ix.–6. x. 49.

Weight ♂♂: 32, 35, 37; ♀♀: 31, 31, 32

Wing ♂♂: 101, (101), (107); ♀♀: (97), (98), 102

The two specimens from June have a very worn plumage. That is also the case with the male from July 27, but it was moulting the wing feathers, and new body feathers were growing out. In the birds from September the postnuptial moult was nearly completed.

In the male collected on June 4 the testes were large and injected; in the female from the 24th of the same month the sex organs were far from the laying stage.

I have not compared the series with topotypical specimens of *intermedia* but both MEINERTZHAGEN (1938: 506) and VAURIE (1949, Am. Mus. Nov. 1406: 2) refer the Afghan populations to this subspecies. It is probably a resident in the country although there may be some local movements down from the higher mountains during the winter for SWINHOE (1882: 113) found it to be only a winter visitor at Kandahar.

On June 2, 1949, I searched in vain for the Rock Sparrow at the Shibar Kotal where MEINERTZHAGEN found it breeding. Two days later I found a single specimen in the Darra-i-Shikari on a small stony plain with a few low bushes.

I did not see it during a short visit in June to the Bamian valley, but in the autumn I found a few flocks in a high side valley, and on September 20 and October 6 at an elevation of 2900 m. in Darra-i-Shahidan, west of Bamian. On the latter date half a dozen birds stayed at a conglomerate wall where I found an old nest which presumably belonged to this species.

On June 14, 1949, I saw a few at Panjao in Hazarajat on a mountain

ridge at an elevation of about 3000 m., and finally on July 27 I found several flocks among boulders in a canyon at Maimana in northwestern Afghanistan.

(363). *Petronia xanthocollis xanthocollis* (Burton) –
Yellow-throated Sparrow

Farah, SW Afghanistan

27. iv. 49. ♂ 7×4 we. 18 wi. 84
30. iv. 49. ♂ 7×4 — 20 — 86

The Yellow-throated Sparrow was until recently only known in Afghanistan from a specimen collected at Kandahar by ST. JOHN (1889: 170). WHISTLER (1945: 118) refers this specimen to the subspecies *transfuga* which inhabits Sind and Baluchistan. In 1937 KOELZ, however, collected two specimens in Laghman between Kabul and Jalalabad which VAURIE (1949, Am. Mus. Nov. 1406: 5) refers to nominate *xanthocollis*.

Dr. VAURIE has had the kindness to examine my two specimens which he found to be nominate *xanthocollis*. "They are slightly paler than the two specimens from Laghman, but still they are not *transfuga* (type examined). In my opinion, *transfuga* is a rather poor intermediate, only the two extremes, nominate *xanthocollis* and *occidentalis* are well marked." Until more material is available I think it therefore best to recognize only nominate *xanthocollis* as occurring in Afghanistan.

The two males which are listed above were collected at Farah where some of this sparrow were seen among the *Passer domesticus* which had their nests in willows in the hotel garden. They were undoubtedly breeding there, for in both males the testes were large as in the active stage.

(364). *Passer domesticus* – House Sparrow

a. *Passer domesticus persicus* \leq *indicus*

b. *Passer domesticus bactrianus* Sarudny & Kudashev

Synonym?: *Passer griseigularis* Sharpe, Cat. Birds Brit. Mus. 12: 313 (1888 – Kandahar).

a. Faizabad, Seistan, 11.–14. iv. 49.

Weight 5 ♂♂: 22–24 (22,8); ♀♀: 21, 21, 23
Wing 5 ♂♂: 77–79 (77,8); ♀♀: 75, 75, 75

Farah, SW Afghanistan

2. iv. 49. ♂ 6×4 we. 25 wi. 78
28. iv. 49. ♂ 5×5 — — — 77
2. iv. 49. ♀ 5×3 — 23 — 74

b. Faizabad, Seistan, 12.-14. iv. 49.

Weight 5 ♂♂: 21-24 (22,3); 4 ♀♀: 21-25 (22,2)

Wing 5 ♂♂: 76-79 (77,9); 4 ♀♀: 73-78 (75,5)

Shin Dand, W Afghanistan

29. iv. 49. ♂ 4×2 — 22 — 75

♀ 5×3 — 22 — 76

Tirpul, W Afghanistan

9. vii. 49. ♂ 3×2 — 25 — 78

Herat, W Afghanistan, 2.-3. vii. 49.

Weight ♂♂ ad.: 23, 24; juv.: 23; ♀♀ ad.: 24, 24, 25, 25; juv.: 21, 22

Wing ♂♂ ad.: 76, 78; juv.: 75; ♀♀ ad.: 74, 75, 76, 78; juv.: 67, 68

Obeh, W Afghanistan

13. vii. 49. ♂ 1×1 — 24 — —

♀ 4×2 — 26 — 76

♀ 3×2 — 23 — 72

♀ — 24 — 72 juv.

Kwaja Chisht, W Afghanistan

19. vii. 49. ♀ 4×3 — 24 — 72

Panjao, Central Afghanistan, 14. vi. 49.

Weight 5 ♂♂: 24-27 (25,2); ♀♀: 22, 23, 25

Wing 5 ♂♂: 77-79 (77,8); ♀♀: 72, 73, 74

Bamian, Central Afghanistan, 6. ix.-15. x. 49.

Weight 24 ♂♂: 21-28 (24,8); 20 ♀♀: 23-28 (25,0)

Wing 7 ♂♂: 76-80 (77,4); 8 ♀♀: 73-77 (75,0)

Gardez, E Afghanistan, 24. v. 49.

Weight ♂♂: 22, 24, 25, 26; ♀: 26

Wing ♂♂: 77, 78, 78, 80; ♀: 76

Faizabad, Badakhshan, 10.-11. vii. 48.

Weight ♂♂: 23, 25, 25, 27

Wing ♂♂: 76, 77, 78, 78

For all the Afghan specimens of bactrianus:

Weight 46 ad. ♂♂: 21-28 (24,4); 36 ad. ♀♀: 21-28 (24,4)

Wing 34 ad. ♂♂: 75-80 (77,5); 25 ad. ♀♀: 72-78 (74,9)

Taxonomy: The material comprises 33 adult males collected from the beginning of April to the beginning of July. These males can easily be divided into two series which both have white, not grey, cheeks. In one of these two series the chestnut areas are paler than in the other, and the crown has a brownish tinge whereas it is purer grey in the other series. About half of the specimens collected on the Lower Farah Rud and the two from Farah belong to the lighter series, while all other specimens, with one exception, belong to the darker. The latter series undoubtedly represents the subspecies *bactrianus*, for MEINERTZHAGEN (1938: 507) refers his specimens from northern Afghanistan to this subspecies, as does VAURIE (1949,

Am. Mus. Nov. 1406: 9) with all, but one, of the specimens collected by KOELZ in Afghanistan.

It is also possible to separate the females in a lighter and a darker series, for in one female from Farah and three from Faizabad the upper parts are lighter, more greyish than in all the other females from the spring. Single individuals it would be difficult to determine, but in a series the two types are easily distinguished.

It is more difficult to decide to which subspecies the pale series (7 males) from Lower Farah Rud and Farah belongs. VAURIE had a single male from Farah. It was taken on October 30 and determined to be a representative of *persicus*. It may very well have been a migrant, and not a local breeding bird.

Dr. VAURIE has had the kindness to compare my light series with the material in the American Museum and he found that the series is just intermediate between *persicus* and *indicus* both in general colouration and in size. The colour of the cheeks is not always constant; it is whitish in some specimens of *persicus* and a little greyish in some from Seistan.

As indicated above I collected both light and darker (*bactrianus*) birds in southwestern Afghanistan. The specimens were taken in April at which time migration takes place, but I think that the light birds were the breeding birds of the district, for they did not occur in other parts of the country, and the two from Farah were collected at the nests; one of these as late as April 28, at which time, however, laying presumably had not yet begun.

Notes on *P. griseigularis* (SHARPE 1888, type locality Kandahar): As Kandahar is situated at the eastern border of the plains which occupy the southwestern part of the country, its breeding population may be intermediate between *indicus* and *persicus*, as are the birds in Seistan, or it may belong to either *indicus* or *bactrianus*. Mr. J. C. FRASER has had the kindness to send me the material in the British Museum collected by SWINHOE at Kandahar. It consisted of 6 males (not including the type of *griseigularis*) and 3 females taken between April 8 and 27, 1881. Five of the males are quite normal and compare very well with my dark series, which I refer to *bactrianus*. These birds, however, were collected during the time of migration and do not necessarily represent the breeding population at Kandahar. The sixth male is, presumably, an intersex. On the label it is marked as a male, which determination undoubtedly is due to inspection of the gonads, for the plumage is just as in the females except that the lesser wing coverts are pale brown, and the back slightly browner than in the females. Mr. FRASER informs me that the type of *griseigularis* agrees

with this specimen "but is slightly deeper chestnut on the lesser wing coverts, and have a slightly more pronounced pale grey throat-bib". In *Catalogue of Birds* (12: 313) the type is marked immature which is repeated by later authors. As these two birds were collected on April 7 and 8, just when the first migrants arrive at Kandahar, they must, however, have been at least about one year old, and, if sexually active, have been collected just before the breeding season.

It is still uncertain, I think, how the breeding population of Kandahar looks, but because of the special condition of the type it would be unwise to use the name *griseigularis* for any subspecies.

There is in my collection no specimens which represent a mixture of male and female characters as in the types of *griseigularis* and *enigmaticus*.

Moult: The postnuptial moult starts at the beginning of July. In two of four females collected on the 2nd new body feathers are growing, and in some of the males and females that are badly worn and were collected from about the middle of the month, the moult of wing and tail feathers has begun. The moult is nearly completed in the numerous birds of both sexes, which were collected at Bamian between September 6 and October 15, but in most of them the outer primaries, a few tail feathers, and some body feathers were still growing.

Distribution: I found the House Sparrow breeding in all the provinces of Afghanistan visited, except in the central wooded parts of Nuristan, and in the highest desolate mountains. In Badakhshan it was not seen above altitudes of 2500–2600 m., but on June 10, 1949, I found it at 3100 m. west of the Unāi Kotal, and at several localities at high altitudes further west to Panjao (2800 m.) where it bred in rather large numbers. In the last week of July there were many large flocks between Qala Nau, Bala Murghab, and Maimana in northwestern Afghanistan, while it was less common at Andkhui and along the road from this town to Mazar-i-Sharif.

Migration: The House Sparrow leaves Afghanistan for the winter, except, perhaps on the plains around Jalalabad, and in the lower Kunar Valley, where some may stay, for on February 20, 1948, I saw a flock which consisted of about 30 individuals at Darontah, near Jalalabad, and the next two days I saw some in that town, and in the Kunar Valley below Chigha Sarai. There were none in Kabul during the winter, and we did not see a single one on our drive on February 16–24, 1949, from Kabul over Kandahar and Farah to the Lower Farah Rud in Seistan. Here in southwestern Afghanistan the first House Sparrows were seen on April 2 at Farah, and other were seen on subsequent days between that town and Dilaram. Down at Faizabad a flock of sparrows was seen on April 8, and

on the 11th one of the House Sparrow; on the 14th the latter was rather numerous in the fields and in the ruins of an ancient town where there were several year-old nests. – During the spring of 1948 in Nuristan a flock consisting of about a dozen individuals passed as late as on May 3 up through the Pech Valley at Wama. They were undoubtedly migrating for they were the only House Sparrows which I observed during my stay in central Nuristan.

During the stay from September 6 to October 17, 1949, at Bamian I observed a very varying number of House Sparrows, on some days only a few, on other days several flocks, but I was not able to decide whether they represented the local population or a migration took place. As, however, most of the birds collected had still not finished the moult I think they were local birds. There may have been some decrease in their number in October. – Between October 23 and November 13, 1949, I saw no House Sparrows in Kabul.

Breeding: The males which arrived in Seistan about the middle of April had large, mostly injected testes which measured from 5×4 to 9×5 mm. In the females the sex organs were only slightly enlarged; the follicles small. There was no difference in the stage of development of the sex organs in the two series mentioned above. By the end of April the House Sparrows at Farah were busy at their nests, but some nests which were inspected on the 30th were still empty. – The testes were injected and at their maximum size (from 9×7 to 10×8 mm.) in four males collected on May 24 at Gardez, and a female from the same date was laying. On June 1 two nests at Siah Gird, Ghorband Valley, contained one and two eggs respectively, hence the laying seems to start in late May and the beginning of June. In the first week of July there were large flocks of adults and juvenals in the Hari Rud Valley.

In Afghanistan *P. montanus* is the house sparrow while *P. domesticus* mostly lives out in the fields or even far from human habitations. The nests are often built, many together, in willows or other trees. I think, however, that most nests in Afghanistan are placed in holes in conglomerate or loam walls, often in colonies of *Columba eversmanni* or *Merops apiaster*. They may also be built in the shafts down to the karez.

(365). *Passer hispaniolensis transcaspicus* Tschusi – Spanish Sparrow

Baqrabad and Faizabad, Seistan, 10. iii.–14. iv. 49.

Weight 7 ♂♂: 23–31 (27,4); 7 ♀♀: 27–31 (29,0)

Wing 7 ♂♂: 77–85 (80,6); 7 ♀♀: 76–79 (78,1)

Bamian, Central Afghanistan, 15. x. 49.

Weight ♂: 33; ♀♀: 29, 29, 30, 30

Wing ♂: 81; ♀♀: 77, 79, 81, 81

In all the specimens from October 15 the postnuptial moult is completed. The male is much paler than males of nominate *hispaniolensis* in comparable plumage.

The Spanish Sparrow is recorded as a breeding bird from several localities in Afghanistan. During the breeding season I found it, however, only at Nau and Kachari in the upper Kokcha Valley, Badakhshan. The altitudes of these two places are 2750 and 2300 m. In the first place I saw on June 30, 1948, a flock in a willow scrub, and on July 3 I found a few around the other village.

During the spring of 1949 the first migrants arrived at Baqrabad in Seistan on March 10. On some of the following days a few passed; on the 24th a flock of about fifty in the fields, later on only single individuals were seen, the last on April 14. In the seven females collected between March 10 and April 14 the sex organs seemed to be quite inactive. In 6 males collected between March 10 and 24 the testes were very small with measurements from $1\frac{1}{2} \times 1$ to 3×2 , in one from April 12, however, the testes were injected, and the size had increased to 6×3 .

The birds collected at Bamian occurred in a mixed flock with *Passer domesticus*. The species was seen there only on October 15.

(366). *Passer montanus dilutus* Richmond – Tree Sparrow

Faizabad, Seistan

11. iv. 49. ♂ 10×6 we. 25 wi. 77

12. iv. 49. ♀ 7×5 — 23 — 71

Shin Dand, W Afghanistan

28. vi. 49. ♀ 5×4 — 18 — 71

Tirpul, W Afghanistan

9. vii. 49. ♂ $1 \times \frac{1}{2}$ — 21 — 73 juv.

Panjao, Central Afghanistan

17. vi. 49. o we. 20 wi. 71

16. vi. 49. ♂ 1×1 — 20 — 66 juv.

Bamian, Central Afghanistan, 16. ix.–15. x. 49.

Weight (ad. et juv.) 9 ♂♂: 22–26 (23,8); 8 ♀♀: 21–24 (22,4)

Wing ♂♂ ad.: 74, 74; juv.: 71, 71; ♀♀ ad.: 76; juv.: 67

Kabul, E Afghanistan

31. xii. 47. ♂ — 20 — 75

Gardez, E Afghanistan

24. v. 49. ♂ 8×6 — 23 — 75

♀ laying — 26 — 71

Kachari, Badakhshan

3. vii. 48. ♂ 9×7 we. 22 wi. 73

I have not been able to compare the series with topotypical *dilutus* (from Kashgar in Sinkiang), but VAURIE (1949. Am. Mus. Nov. 1406: 23) refers the Afghan populations to this subspecies while he considers *pallidus* (type locality East Iran) a synonym of *dilutus*. In two males, collected on August 3 at Kachari in Badakhshan and on April 11 at Faizabad in Seistan, the feather fringes of the upper parts are slightly duller brown than in the other specimens. These two males agree with two specimens from Abr, east of Gurgan, Iran (PALUDAN 1940: 33). All four presumably represent intermediates between *transcaucasicus* and *dilutus*.

Of 18 adults and juvenals collected at Bamian between September 16 and October 15 seventeen specimens were moulting, only one female from the last mentioned date had completed the moult.

I found the Tree Sparrow nearly everywhere in Afghanistan. It is resident and lives in the towns and villages and in the nearby fields. Some local movements may take place.

Of the numerous observations a few may be of interest. In Nuristan this sparrow inhabits the Kunar Valley, at least up to Chigha Sarai, and the lower Pech Valley up to Gusalek, but I never saw it with certainty higher up in this valley, where I collected all the spring. On April 30, however, I saw at Wama a glimpse of a flock consisting of about a dozen sparrows which may have belonged to this species, but as a whole it must be said to avoid all the central Nuristan with its narrow valleys.

In the Kokcha, Warduj and Sanglich valleys, Badakhshan, it occurred up to an altitude of about 3000 m. At the same altitude it lived in eastern Hazarajat, where on June 10, 1949, I saw many at Diwal Kol (3000 m.), and in the middle of the month in a willow scrub along the river at Panjao.

It is said not to inhabit the lowland of southwestern Afghanistan, CUMMING (1905: 688), however, writes that it "... was to be found in every building in the Mission Camp at Kuhak, in April 1905. I did not notice any in the month following, when they appear to have entirely deserted these buildings". I did not see it in and around the village Baqrabad where we had our first camp in Seistan, but on a visit March 6 to the neighbouring village Faizabad I saw a dozen individuals there in a flock, and when we moved the camp later to that place we saw a few nearly every day throughout the length of our stay (March 20 to April 20). A male and a female collected on April 11 and 12 were probably incubating. It undoubtedly bred both at Farah and in several localities between this town and Kandahar.

In late June it was common at Shin Dand in western Afghanistan, and

in July numerous in Herat, but I did not notice it farther up the Hari Rud Valley at Obeh and Kwaja Chisht.

On the drive through northern Afghanistan (July 1949) we found it in most towns and villages except in the desert-like country around Andkhui. During September and October I saw it at several villages in the range of Bamian.

(368). *Passer moabiticus yatii* Sharpe – Yate's Sparrow

Passer yatii Sharpe, Cat. Birds British Mus. 12: 322 (1888 – between De-kamran and De-doda, Seistan)

Lower Farah Rud, Seistan, 2.–30. iii. 49.

Weight 10 ♂♂: 14–17 (15,8); 6 ♀♀: 14–17 (15,6)
Wing 12 ♂♂: 62–68 (65,3); 6 ♀♀: 62–64 (63,2)

I have not compared this series with other specimens, but they were collected not far from the type locality of *yatii* and Dr. VAURIE informs me that this “. . . seems to be a very well marked race; in comparable plumage it is only slightly paler above, but it is yellow below, and there is no trace of yellow on the under parts of the five specimens of *P. m. moabitus*. . .” in the American Museum.

Three of the females in the list above differ from the other three specimens by having darker greyish brown under parts and the yellow feather edges are also more pronounced. In these three females the oviducts were straight, so I presume they are subadults. In the males there is no difference in plumage, but a seasonal change in the colour of the bill. In those, which were collected at the beginning of March and which still had very small testes, the lower bill was light horn, the upper bill somewhat darker; in most of the males collected at the end of March the bill was black.

During March we observed some single birds and a few flocks consisting of up to half a hundred birds in the tamarisk scrub at the estuary of Farah Rud, and on one occasion in a scrub along the river at Baqrabad. In all the females the sex organs were in the inactive stage, but in the males the size of the testes increased from $1 \times 1\frac{1}{2}$ mm. at the beginning of March to 6×4 at the end of the month.

(369). *Montifringilla nivalis alpicola* (Pallas) – Snow Finch

Shibar Kotal, Central Afghanistan

6. vi. 49.	♂		we. 30	wi. 118	bs. 16
2. vi. 49.	♀	5×4	— 34	— 109	— 15

Darra-i-Shahidan, Central Afghanistan

7. vi. 49.	♀	5×3	— 33	— 115	— 16
6. x. 49.	♀		— 35	— 114	— 15

Bamian, Central Afghanistan

13. ix. 49. ♂ 1×1 we. 34 wi. 119 bs. 16

Panjao, Central Afghanistan

11. vi. 49. ♂ 7×5 — 34 — 119 — 16

♂ 6×4 — 35 — 117 — 15

o — 32 — (113) — 15

♀ 3×1 — 30 — — — — juv.

Unaï Kotal, Central Afghanistan, 10. vi. 49.

Weight ♂♂: 31, 33, 33, 34; ♀♀ ad.: 31, 31, 33; juv.: 30

Wing ♂♂: 115, 118, 119, 121; ♀♀: 109, 114, 114

Culmen ♂♂: 14, 15, 15, 16; ♀♀: 15, 15, 16

In eight adult males the black terminal spot of the fifth inner pair of rectrices measures: 4, 4, 5, 6, 6, 10, 10 (mean 6,3)

In 1949 VAURIE (Am. Mus. Nov. **1406**: 27) recognized *gaddi* (type locality Luristan, southwestern Iran) and *groum-grzimailli* (type locality Bei Shan, eastern Tian Shan), and referred his Afghan specimens to *gaddi*. In a recent paper (1956, Am. Mus. Nov. **1814**: 24), however, he synonymizes both these two names with *alpicola* (type locality Caucasus).

The male and female from September 13 and October 6 in the list above have nearly completed the postnuptial moult. In the male the outermost primaries are still growing as are several body feathers, in the female only a few feathers on the head are growing.

Although I made several excursions above the tree limit in the mountains of Nuristan I only once saw a flock of half a dozen Snow Finches. It was on May 18 above Pashki at an altitude of about 3600 m. When I revisited the same locality on July 25 it was not possible to find any. In the valleys on both sides of the Weran Kotal I searched in vain for this species. My only observation in Badakhshan was on July 16 of three specimens at an altitude of 3500 m. west of Sanglich.

On June 2 and 7, 1949, I saw a few at an elevation of 2700 m. in the valley just west of the Shibar Kotal. On the 6th we tried to go by jeep from Bamian to Band-i-Amir, but were forced by snowfall to return before we reached the Nil Kotal. We saw the first few Snow Finches already at 2600 m. in the upper Bamian Valley, and a few in the high-lying valleys further west. When we returned, we found several large flocks, presumably forced down from the surrounding mountains by the snowfall. During our stay in September and October in this region I occasionally saw some flocks consisting of from a dozen up to one to two hundred individuals. They were found in areas with tussock grass or at springs at elevations between 3000 and well above 3600 m.

On June 10 I saw several in the Unai Kotal from an altitude of 3100 m. and upwards in the narrow green areas in the bottom of the valley as well as on the slopes strewn with boulders.

A few were seen also in some localities between the Unai Kotal and Panjao. One male collected on June 10 seemed to be in a sexually active stage. Its testes measured 10×6 , and the *vesiculæ seminales* were much enlarged. All the other adult males and females from the beginning of June had reduced gonads and large brooding patches. The two juvenals collected on the 10th also show that the breeding season was generally over by the beginning of June.

(370). *Montifringilla theresae* Meinertzhagen – Theresa's Snow Finch

Montifringilla theresae Meinertzhagen, Bull. Br. Orn. Club 58: 10 (1937 – Shibar Kotal, Afghanistan)

Shibar Kotal, Central Afghanistan, 2. vi. 49.

Weight ♂♂: 23, 25, 26; ♀♀: 27, 27, 28

Wing ♂♂: 92, 93, 96; ♀♀: 93, 94, 96

Bamian, Central Afghanistan, 20. ix.–6. x. 49.

Weight 8 ♂♂: 24–28 (25,5); ♀: 26; sex ? : 24

Wing 5 ♂♂: 95–96 (95,6); sex ? : 93

Unai Kotal, Central Afghanistan, 10. vi. 49.

Weight 5 ♂♂: 24–26 (25,2); ♀: 24

Wing 5 ♂♂: 94–96 (95,2); ♀: 91

All the birds collected in June at the Shibar Kotal and Unai Kotal are adults in the worn nuptial plumage described by MEINERTZHAGEN. The specimens from September and October are in fresh plumage and differ very much from the birds collected in June. Above the greyish-brown feather edges partly conceal the dark-brown streaks, so that the back appears nearly as uniform grey-brown as the upper side of the head. Below the birds are whitish-grey with a brownish tinge, especially on the flanks. In the birds from June the whole under parts are more brownish. The black mask is fully absent in the fresh-moulted autumn specimens. These birds, therefore, must go through a partial moult, at least including parts of the head, before the breeding season. A similar partial prenuptial moult takes place also in *M. nivalis*. (Handbook British Birds 1: 155).

The total moult was not fully completed in the autumn birds for during the skinning all specimens appeared to have several body feathers still growing, and in most specimens the outermost primary was growing or still not shed. In the two males and one female in which this primary was not shed, the mandible is partly light; in all the other specimens from both

June and the autumn the whole bill is black. These three specimens undoubtedly are juvenals, the female at any rate, for it had a juvenile oviduct. Whether the other specimens are juvenals or adults cannot be decided, but the adults surely have a partial, prenuptial moult as well as the birds in their first year.

MEINERTZHAGEN found a "... considerable variation in the shoulder of the wing, in some specimens being almost pure white, and in others pale brown". I find the same amount of variation and can see no relation to either sex, age or season.

This Snow Finch was discovered as late as in 1937 by MEINERTZHAGEN who collected it at the Shibar Kotal and at Bamian. Two years later KOELZ (VAURIE, 1949. Am. Mus. Nov. 1406: 30) collected 8 specimens at the Sabz Kotal which is about 100 km. northwest of the Shibar. During the breeding season it is not known from outside Afghanistan, but in the winter it occurs in Transcaspia (Birds of the Soviet Union 5: 318). Its nearest relative is probably *M. blanfordi* (Tibet from Kashmir) with which it may be conspecific.

On June 2, 1949, I met the first individuals just east of the Shibar Kotal at an elevation of 2700 m. where some small springs on a slope gave rise to a green carpet of grass. We found also several on the slopes around the pass. They occurred in pairs, and no juvenals were seen. On August 7 we saw a flock in the pass consisting of 20–30 individuals.

On June 6 I saw a few flocks of half a dozen individuals in the high situated Shahidan Valley west of Bamian. During our stay in September and October at Bamian I saw it again in this valley, and at a certain locality in the higher part of the Bamian Valley. In both places they came in flocks to some springs. The flocks consisted mostly of a few dozen birds but in one case as many as 100–200.

It also occurs at the Unai Kotal where on June 10 we saw the first at an elevation of 3100 m. It was seen also at several localities west of the Unai Kotal along the road to Panjao, but I never saw it on my excursions around this place.

I am a little puzzled about the breeding season of this species. In three males collected on June 2 at the Shibar the testes measured 6×4 , but in five males collected on the 10th at Unai they measured from 6×6 to 9×5 , and in two of the specimens rather large *vesiculae seminales* were noticed as if the birds were going into the active period. In the four females the sex organs were small but whether in the progressive or the regressive stage could not be seen. No young were observed.

(371). *Sturnus vulgaris* – Common Starlinga. *Sturnus vulgaris nobilior* Hume*Sturnus nobilior* Hume, Stray Feathers 8: 175 (1879 – Kandahar)b. *Sturnus vulgaris pollaratskyi* Finsch

b. Gusalek, Nuristan, 3. iii. 48.

Weight 5 ♂♂: 71,5–78,7 (74,3); 5 ♀♀: 72,2–80,2 (76,3)

Wing 5 ♂♂: 123–130 (126,4); 6 ♀♀: 122–127 (124,7)

Bamian, Central Afghanistan

9. x. 49. ♂ 2×1 we. 77 wi. 121

♀ 4×3 — 75 — 126

12. x. 49. ♀ 5×2 — 75 — 129

In all the specimens collected at Gusalek and Bamian the head and throat are purplish, the back pure green, and the edges of the under wing coverts and the axillaries pale brown; because of these characters I believe they must belong to the Siberian populations which usually are called *pollaratskyi* (or *menzbieri*).

In the afternoon of March 2, 1948, I saw the first flock of about two hundred starlings over the fields at Gusalek in Pech Valley, Nuristan. The next day still more arrived. On the 4th they had all left, and none was seen later. – On February 18, 1949, MADSEN saw one in Kandahar. It was the only one we ever saw during all the time we spent in southern Afghanistan. – At Bamian I recorded three on October 9, 1949, and five on the 12th.

The local race in Afghanistan is *nobilior* which comes very close to *caucasicus*. It is, however, a very scarce breeding bird, for the only locality where I found it was Faizabad in Badakhshan, and there I saw on July 11, 1948, merely two birds in a garden. In Haibak where MEINERTZHAGEN (1938: 499) found a few breeding pairs, I looked in vain for it at the beginning of August.

(372). *Sturnus roseus* (Linné) – Rosy Pastor

Gusalek, Nuristan

5. viii. 48. ♀ we. — wi. 118

♀ — — — 124 juv.

Panjao, Central Afghanistan

12. vi. 49. ♂ 10×15 — 71 — 131

♀ 10×6 — 61 — 125

Kwaja Chisht, W Afghanistan

19. vii. 49. ♂ 2×1 — 69 — 122 juv.

♀ 6×4 — 73 — 125

Bamian, Central Afghanistan

22. ix. 49. ♂ 2×1½ — 55 — 121 juv.

15. x. 49. ♂ 3×1½ — 67 — —

♂ 3×2 — 76 — 137

16. ix. 49. ♀ 4×3 — 53 — 123 juv.

A huge migration of the Rosy Pastor passes through Afghanistan in spring and autumn, but a few remain to breed in the country, for KOELZ collected two fledging females on July 15, 1937, at Khairabad between Faizabad and Jurm in Badakhshan. They still had nestling down clinging to the tips of the juvenile feathers, and the new rectrices and remiges were still in their sheaths (MARIEN, 1950, Jour. Bombay Nat. Hist. Soc. 49: 480). I saw it also at a time of the year when one would expect them to stay on their breeding grounds, but I found no proof of its breeding.

To give a picture of its status in Afghanistan I think it better to give my diary in some detail:

February to June 1948: In the Pech-Parun Valley, Nuristan, no migration was observed.

23. ii.–21. iv. 1949: Seistan, no migration observed, perhaps because it had not yet started.

May 1949: On the 5th flocks of 3 and 7 at Mukur. On the 30th flock of 25 in a poplar grove at Kabul.

June 1949: On the 12th a flock of 30–40 adults in a willow scrub at Panjao in Hazarajat. On the 17th a single adult was seen at the same locality. In a male collected the testes and *vesiculae seminales* were enlarged, in a female the sex organs were also enlarged, but far from the laying stage. The plumage of the male was quite fresh, that of the female was badly worn (incubation?). The fact that the birds occurred in flocks does not speak against breeding for they flock even during the breeding season (cf. M. K. Serebrennikov, 1931, Jour. Orn. 79: 29).

July 1948: Badakhshan. On the 5th a flock of 20 in bush at Sar-e-ab in the Kokcha Valley (elevation 1800 m.). When we arrived the next day at Iskan lower down the valley there were hundreds, perhaps thousands, in the walnut and mulberry trees in the village. On the 12th a flock of 25 in a village below Barak. The 16th three above Maghnaol (3000 m.). On the 18th a flock of about 25 at Tilli (2700 m.) where single birds were seen also on the two following days.

All these birds were adults and may have been migrants from Turkestan where the breeding season is sometimes completed by the middle of June (SEREBRENNIKOV l. c.), but on the other hand as they were seen in the region where KOELZ collected his young birds, some of these birds may have been local breeders.

July 1949: Western and northeastern Afghanistan. On the 5th a flock of 25 adults at Herat. On the 18th a flock of about 10 adults and one juvenal between Obeh and Kwaja Chisht in the Hari Rud Valley. The next day at Kwaja Chisht I saw a flock of 15 adults and later in a tree one adult

together with three or four juvenals. Of this family party I collected the adult (a female) and one of the young. The plumage of the female is badly worn. The juvenal was fully fledged. On the 20th I saw about a dozen adults together with three or four juvenals. North of the main range I saw two flocks of adults and juvenals on the 24th between Qala Nau and Bala Murghab; several mixed flocks on the 25th at Bala Murghab; and the next day between Bala Murghab and Maimana half a dozen adults and later a large flock, which mainly consisted of juvenals.

August 1948: On the 5th I collected two at Gusalek in the Pech Valley, Nuristan, and on the 9th I recorded a flock of about fifty in the Kunar Valley below Chigha Sarai. There were only a few juvenals in the flock.

August 1949: In the trees along the road from Mazar-i-Sharif to Tashkurgan in Afghan Turkestan there were huge flocks of adults and juvenals on the 1st. On the 7th a rather large flock of mainly juvenals over Doab in the Surkhab Valley.

September–October 1949: Bamian. On several days between September 6 and October 15 I saw from a few up to 20–30 individuals. Most observations were made before September 22. Nearly all were juvenals. In one collected on September 22 the postjuvenile moult had just started with some of the secondaries. In the field I saw a few in mixed juvenile and adult plumage. In an adult male from October 15 the plumage is extremely worn. – They fed much on *Hippophaës* berries.

The investigations seem to show that the autumn migration starts early in July with the adults which a little later are followed by the juvenals. These dominate the latter part of the migration which is protracted until the middle of October. Some of the observations from June and the middle of July show perhaps that the Rosy Pastor breeds in central Afghanistan.

(374). *Sturnus tristis tristis* (Linné) – Common Myna (Indian Myna)

Jalalabad, E Afghanistan

14. ii. 48. ♂ 2 we. — wi. 141

Gusalek, Nuristan

15. iii. 48. ♂ 6×3 — 126 — 147

Herat, W Afghanistan

3. vii. 49. ♂ 9×4 — 125 — 147

♂ 10×4 — 122 — 147

Andkhui, N Afghanistan

29. vii. 49. ♀ 2 — 125 — 141

Mazar-i-Sharif, N Afghanistan

1. viii. 49. ♂ 1×½ — 114 — 140 juv.

Haibak, N Afghanistan

2. viii. 49.	♀	5×3	we. 116	wi. —	
	♀	4×2	— 94	— 132	juv.
	♀	5×3	— 105	— (140)	

The two adult males from July 3 are in worn plumage but a few new feathers are growing. The two adult females from August 2 were moulting remiges, rectrices, and body feathers. During skinning of the two juvenals from August 1 and 2 some growing body feathers were noticed. — I have not been able to compare the series with *naumanni* Dementiev (1957, type locality Deinau, Turkmenia).

The Common Myna is now distributed over most of Afghanistan except the central highland and the desert like plains in the southwest. It keeps strictly to the towns and villages and the cultivated fields surrounding them. Most individuals probably remain in the country all the year round. They were thus to be found in Kabul at an elevation of 1700 m. even during the severe winter.

On December 14, 1947, there were several in Jalalabad, and on February 20, 1948, I saw small flocks in the cultivated areas west of the town. On following days also some seen up through the Kunar and Pech valleys to Gusalek in Nuristan. When we returned in the first week of August it was also seen at several of the villages on this route. At Gusalek its number had increased considerably from we left the place on March 29 till we returned on August 1. Gusalek, at an altitude of 1000 m., was the last village in which we saw the Myna. We did not find it in central Nuristan or in Badakhshan between Weran Kotal and Faizabad.

At Kabul it occurred in the town proper, but it was more common in the surrounding villages. In January 1948 several Mynas gathered to roost under an old bridge in the bazar. North of Kabul I saw it at Charikar (October 18, 1949), but not in the Ghorband Valley. On our drives between Kabul and Kandahar we never saw it, but east of this route I saw a single bird on May 25, 1949, at Usman Khel, east of Gardez. When we passed Kandahar in February, May, and June it was very numerous there.

Throughout the region from west of Kandahar to Farah, Seistan, and Shin Dand in western Afghanistan we did not record it. At Herat it was again a common bird, both in the town and the nearby villages, but it did not go up the Hari Rud Valley to Obek and Kwaja Chisht.

In northern Afghanistan it was rather numerous from west of Maimana over Andkhui, Shibarghan, Aq Chach, and Mazar-i-Sharif to Haibak (July 26–August 3, 1949).

(376). *Oriolus oriolus kundoo* Sykes – Golden Oriole

Shin Dand, W Afghanistan

29. vi. 49. ♂ 12×7 we. 65 wi. 143

Kwaja Chisht, W Afghanistan

19. vii. 49. ♂ 2×1 — 70 — 141

Obah, W Afghanistan

13. vii. 49. ♀ 2 — 60 — 142

♀ 1 — 63 — 143

All the specimens above are adults. In the males the black of the lores extends behind the eye as is characteristic of the subspecies *kundoo*. The three birds from the middle of July were moulting the body feathers, and the male and one of the females had also started to moult the remiges.

When we left Gusalek in the Pech Valley, Nuristan, on March 29, 1948, the Golden Oriole had not yet arrived, but when we returned in the first week of August it was abundant there and lower down the valley. – Higher up the valley I heard and saw a few between April 24 and May 2 at Wama, and on May 14 and 15 at Pashki. These birds were probably migrants, but as late as June 15 I saw one at Kustachi between Pashki and Stiewe, so a few may remain to breed in the higher part of the valley.

In other parts of eastern Afghanistan I found it to be a common bird in the gardens of Kabul. In the last week of May, 1949, I heard it in the Logar and Wardak valleys south of Kabul, and on June 10 at Sar-i-Chashma (2600 m.) in the Maidan Valley.

In southern Afghanistan I saw it several times in Girishk and at Lashkari-Bazar on May 4 and 5, 1949. They may have been migrants, but on the other hand it does breed in southern Afghanistan, for on June 26 I heard several in Kandahar and in some scrub along Arghandab.

In western Afghanistan there were a few in the last days of June, 1949, in a poplar plantation at Shin Dand. In the Hari Rud Valley I did not hear it at Herat but in the middle of July there were a few in the lower part of the side valley at Obah and several at Kwaja Chisht.

In northern Afghanistan it seems to be scarce in the western parts where on July 25 I saw one or two at Bala Murghab. At Doab just north of Darra-i-Shikari I heard it on June 3. In Badakhshan I found it during July, 1948, to be very common in the villages and towns in the Kokcha and Warduj valleys from about 1800 m. down to Faizabad.

In central Afghanistan I heard it several times on June 15, 1949, in a willow scrub near Panjao.

(377). *Dicrurus macrocercus albirictus* (Hodgson) – King Crow

Wama, Nuristan, 20. iv.–1. v. 48.

Weight	♂♂: 39, 40, 44; ♀: 41
Wing	♂♂: 143, 143, 145; ♀: 139
Tail	♂♂: 166, 172, 173; ♀: 152

When we left Gusalek in the Pech Valley, Nuristan, on March 29, 1948, the King Crow had not yet arrived, but on our return in the first week of August it was rather numerous and occurred in family parties. Now it was seen also at several localities farther down the valley as well as in the Kunar Valley. – At Wama in central Nuristan the first arrivals came on April 20, and from May 1 they occurred in pairs in the oak forest. The sex organs in the newly arrived birds were rather enlarged. In one of the males the testes measured 14×6 and were injected. – At Pashki and Stiewe higher up the valley it was not seen.

Outside Nuristan and the Kunar Valley I saw only on May 26, 1949, a single bird in the lower part of the valley leading from Gardez to Tera Kotal.

(379). *Pyrrhocorax pyrrhocorax docilis* (Gmelin) – Red-billed Chough

Stiewe, Nuristan

22. vi. 48.	♂	6×3	we. 291	wi. 302	bs. (45)
17. vi. 48.	♀	11×8	— 264	— 289	— 49

Maimana, NW Afghanistan

27. vii. 49.	♂	4×2	—	—	—	54
	♀	8×4	—	—	—	50

Bamian and Darra-i-Shahidan, Central Afghanistan, 13. ix.–13. x. 49.

Weight	♂: 314; ♀♀ ad.: 262, 263; subad.: 253, 283
Wing	♂♂: 305, 309, 313; ♀♀ ad.: 282, 288, 292, 293, 297; subad.: 274, 281, 283

Bill from skull ♂♂: 53, 53, 55; ♀♀ ad.: 46, 46, 48, 48; subad.: 46, 47

The female from June 17 and the male from the 22nd are both moulting the body feathers, remiges, and rectrices. The female had an incubation patch. Also the pair collected on July 27 are moulting remiges and body feathers. Even the adults from September and October, except a male collected on October 13, have not finished the moult.

VAURIE (1954, Am. Mus. Nov. 1658: 4) recently examined large series of *P. pyrrhocorax*, including 18 specimens from various parts of Afghanistan. He found the Afghan populations to be intermediate between the greenish *docilis* (from Crete to Iran) and the bluish *himalayanus* (from western Sinkiang and Himalayas to western Szechwan), but the series on the whole being distinctly closer to *docilis*. I have not had material with which to

compare my specimens, but they seem to confirm the intermediate status of the Afghan populations, for the wing coverts, except the greater ones, have a bluish gloss with a faint greenish tinge, while the greater wing coverts have a greenish gloss.

On March 15, 1948, I saw a single Red-billed Chough at Gusalek in the Pech-Parun Valley, Nuristan, and on May 17 a flight of six at Tusum above Pashki, but first at Stiewe (2600 m.) I was at its breeding grounds. There I saw it regularly and in pairs in the latter half of June. A pair presumably had their nest together with *Columba livia* on a vertical rock wall.

North of the main range, in Badakhshan, I found it in July at several localities at elevations from 2500 m. to 3500 m. in the Weran, Kokcha, and Sanglich valleys. On the 16th I saw a family party of four in a field at Sanglich (2900 m.). The fully fledged young were still fed by one of the parents.

During the summer months I further saw it at: Panjao in Hazarajat, flights of a dozen birds on June 12 and 13, 1949; at Obeh, a single bird high over the side valley on July 17; and in northern Afghanistan between Qala Nau and Bala Murghab, a few on July 24 in a canyon along a southern tributary to Murghab; at Maimana, half a hundred in a canyon on July 27; at Haibak, four on August 4; and at Doab, a few below and above this village in the Surghab on June 4.

During winter and early spring 1949 in southern Afghanistan I saw several large flights around Kandahar on February 20; about 20 birds in the foot hills east of Farah on the 21st; and a dozen birds at Dilaram, between Farah and Girishk, on April 4 and 5.

At Bamian, September 6–October 17, 1949, we saw a few birds together or flights counting up to hundreds of birds. During the first part of our stay they were seen only at higher elevations, not down in the main valley, but after the middle of September they became more and more common there, coming down from the surrounding mountains to feed in the fields during the day and returning in the afternoon to their roosting places in the mountains.

(380). *Pyrrhocorax graculus digitatus* Hemprich & Ehrenberg –
Alpine Chough

Pashki, Nuristan

11. vi. 48. ♂ 13×9 we. 215 wi. 301 tl. 193 bs. 30

Stiewe, Nuristan

17. vi. 48. ♂ 6×4 — 191 — 280 — 173 — 29

22. vi. 48. ♂ 7×4 — 231 — 292 — 180 — 31

24. vi. 48. ♂ 6×4 — 214 — 275 — 173 — 30

VAURIE (1954, Am. Mus. Nov. 1658: 6) showed that the Alpine Chough can be divided into two subspecies, a small western (n nominate *graculus*) which is distributed from Europe over Asia Minor and Caucasus to southern Caspian districts, and a large eastern race which is distributed from Near East over Zagross, Khorasan, and eastwards. As this last subspecies probably includes Syria it must be named *digitatus* (type locality Syria), not *forsythi* as it is usually called.

The specimens in the list above confirm the large measurements of the eastern populations for which VAURIE gives a wing length of 280–289 in the males, as against 255–279 in nominate *graculus*.

In Nuristan I saw a single Alpine Chough at Wama on April 23, 1948, and at Pashki I observed it a few times, especially when I visited the regions above the limits of forest (at about 3100 m.). On May 29 a flock of 50 birds were soaring high in the air and shortly after I saw a pair on a rock at an elevation of 3300 m. One of the pair seemed to beg for food. – At Stiewe, which is at an elevation of 2600 m. and above the limits of forest, it was rather numerous and much more common than the Red-billed Chough, and contrary to this it always appeared in flights of 10–15 birds which were searching for food along the hill sides.

In Badakhshan, north of the Hindukush, I found it, in July 1948, to be rather common at elevations between 1900 and 3500 m. in the Weran, Kokcha, Warduj, and Sanglich valleys. In one of the villages here I saw some perch in the mulberry trees, probably to eat the fruits. – Neither in Nuristan nor in Badakhshan was I able to find any differences in habitat preference of the two choughs.

On June 7, 1949, I saw six choughs in the upper Ghorband Valley which I determined to be *graculus*. If my identification was right, and I think it was, it represents my only observation from outside Nuristan and Badakhshan.

(381). *Garrulus lanceolatus* Vigors – Lanceolated Jay

Gusalek, Wama, and Pashki, Nuristan, 29. ii.–21. v. 48.

Weight 7 ♂♂: 88,0–104,4 (96,2); 7 ♀♀: 84,2–102,0 (94,3)

Wing 7 ♂♂: 148–156 (151,3); 7 ♀♀: 144–152 (148,1)

Tail 6 ♂♂: 148–169 (156,3); 5 ♀♀: 141–149 (144,2)

Bill from skull 7 ♂♂: 20–22 (21,3); 7 ♀♀: 20–23 (21,1)

WHISTLER (1944: 514) lists the Lanceolated Jay as a questionable species for Afghanistan on the basis of some uncertain notes by GRIFFITH. I found it, however, to be a resident in the oak forests of Nuristan. At Gusalek I saw them single or in small parties in March 1948. In April and the beginning of May at Wama they occurred mostly in pairs, and on May 2

I saw one carrying nesting material. In six males collected between February 29 and May 1st the testes increased from 3×1 to 10×4 . In six females from the same period there was a similar increase of the sex organs, but the female collected on May 1st was still far from the laying stage. — At Pashki, within the zone of coniferous forest, I saw three jays only, and they were all seen on May 21. First I found a pair among the few oak trees which were intermixed the lower part of the *Cedrus* forest. I collected the male and, shortly after I had returned to our camp in the bottom of the valley I found a jay there also, the only one we ever saw there during the five weeks' stay. It was a female, and may have been the mate of the bird first collected. In the male the testes measured 13×6 , and in the female the largest follicle had a diameter of 3 mm., but the oviduct was still far from the maximum stage.

(382). *Pica pica bactriana* Bonaparte — Magpie

Pica bactriana Bonaparte, *Conspectus Genera Avium* 1: 383 (1850 — Kandahar)

Stiewe, Nuristan

17. vi. 48. ♂ 5×2 we. 220 wi. 215 tl. 270 subad.

Wardak, E Afghanistan

26. v. 49. ♂ 11×6 — — — 210 — 275

Tangighori, E Afghanistan

30. v. 49. ♂ — — — 214 — 278

Kabul

11. viii. 49. ♂ 4×2 — 220 — (205) — — subad.

Lashkari-Bazar, S Afghanistan

5. v. 49. ♀ 8×5 — — — (188) — 250 subad.

Obeh, W Afghanistan

16. vii. 49. ♀ 4×2 — 216 — 194 — 224 juv.

Andkhui, N Afghanistan

29. vii. 49. 0 — 235 — 200 — 251

Panjao, Central Afghanistan

14. vi. 49. ♀ — 165 — — — — juv.

15. vi. 49. ♀ 10×5 — 182 — 197 — (260)

Bamian, Central Afghanistan, 18. ix.—8. x. 49.

Weight ♂♂ ad.: 239; subad.: 212, 230, 237, 245, 264
♀♀ ad.: 199, 202; subad.: 199, 204, 209

Wing ♂♂ ad.: 217; subad.: 201, 208, 210, 212, 218, 221
♀♀ ad.: 204, 209; subad.: 199, 203, 203

Tail ♂♂ ad.: 300; subad.: 230, 255, 260, 265, 275, 280
♀♀ ad.: 285; subad.: 230, 235, 238

This series has less blue gloss on the secondaries than a series of Danish breeding birds, and there is no bluish gloss on the rectrices. Also the other

characters ascribed to *bactriana* by HARTERT and STEINBACHER (1932-38: 13) are found in this series.

A male collected on August 11 is in postnuptial moult. In the specimens collected between September 18 and October 8 the postjuvenile or postnuptial moults were not finished.

On December 14, 1947, I saw a single Magpie at Jalalabad. It may have been a winter visitor, for on all my other trips between the Khyber Kotal, Jalalabad, and Kabul I never saw a Magpie before we had passed the Lataband Kotal just east of the capital.

During the last half of June, 1948, I saw a few around Stiewe in the upper Parun Valley, Nuristan, but I did not find it in the lower valley where I collected during all the spring.

During July, 1948, it was seen at several localities in the Kokcha, Warduj, and Sanglich valleys in Badakhshan at elevations between 2700 and 1500 m., but not in the broad valley from Jurm to Faizabad.

It is found all the year round in and around Kabul, and we saw it at several localities on our drives through the valleys north and south of this town. In May it was seen at Usman Khel and in the valley south of Tera Kotal in the province of Gardez.

In June, 1949, I saw several between Unai Kotal and Panjao in Hazarajat. On June 13 a nest at Panjao contained four fledglings. The nest was built two metres above the ground in a *Hippophaës* bush. On the 15th another nest contained young of the same age. This nest was built in a willow four metres above the ground.

The Magpie is rather scarce in southern Afghanistan. I noticed a single bird only on our drives through the cultivated areas around Kandahar. But in the beginning of May, 1949, I found a few in scrub and trees along the Helmand River at Lashkari-Bazar, south of Girishk. We did not see it in Seistan, at Farah, or at Shin Dand.

In July, 1949, I found it to be common at Herat and the villages in its vicinity. It was also seen higher up the Hari Rud Valley to east of Obek and in the juniper scrub in the Sauzak Kotal.

In northern Afghanistan I did not see the Magpie north of the Sauzak Kotal until at Chahar Shamba between Bala Murghab and Maimana. Later it was seen at several villages along the road over Maimana and Andkhui to Mazar-i-Sharif. A few occurred also at Haibak and up through the Surkhab Valley from Pul-i-Khumri to Darra-i-Shikari.

It was rather numerous in the lower parts of the Bamian Valley, but I never saw it in the high parts of this valley or further west to Band-i-Amir.

(383). *Nucifraga caryocatactes multipunctata* Gould – Nutcracker

Pashki, Nuristan, 8. v.–12. vi. 48.

Weight	♂♂ ad.: 165, 176, 177; juv.: 164, 168, 170
	♀♀ ad.: 155, 158, 164, 173; juv.: 153, 161
Wing	♂♂ ad.: 200, 201, 212; juv.: 202, 203, 204
	♀♀ ad.: 195, 195, 202, 206; juv.: 201, 203
Tail	♂♂ ad.: 144, 148, 159; juv.: 155, 158, 158
	♀♀ ad.: 144, 155, 155; juv.: 150, 155
Distension of white fleck at the outer rectrices	
	♂♂ ad.: 57, 58, 78; juv.: 53, 54, 55
	♀♀ ad.: 41, 43, 48, 50; juv.: 51, 63
Bill from skull	
	♂♂ ad.: 43, 45, 47; juv.: 36, 40, 40
	♀♀ ad.: 39, 41, 41, 44; juv.: 35, 36

The Nutcracker occurs only in eastern Afghanistan where I found it in Nuristan. In April 1948 a few were seen at Wama in the Pech Valley. During May and June it was much more common higher up the valley, at Pashki, where it lived all the way from the hazel scrub in the bottom of the valley through the various kinds of coniferous forests up to the tree limit. On one occasion I even saw a single bird at some rocks at an altitude of 3300 m. which was above the tree limit. – It was not seen at Stiewe which lies high above the border of the forest.

The breeding season seems to start very early in the year for when we arrived at Pashki in the beginning of May it was already over, and some of the adult birds were in the postnuptial moult, and the young birds were moulting the juvenile plumage.

(384). *Corvus monedula soemeringii* (Fischer) – Jackdaw

Haibak, N Afghanistan, 2. viii. 49.

Weight	♂: 215; ♂♀ juv.: 184, 195, 202, 203, 217
Wing	♂♀ juv.: 230, 231, 231, 231, 234, 240

The adult male is in postnuptial moult, and all the juvenals are also moulting.

VAURIE (1954, Am. Mus. Nov. **1668**: 15) refers a series of breeding birds from northern Afghanistan to *soemeringii*.

The Jackdaw breeds in Afghanistan only north of the central mountain range, but occurs as a winter visitor in the southern parts of the country. I saw it at the end of July and the beginning of August 1949 in its breeding range at Bala Murghab, Maimana, and Haibak. In the first locality I saw a single small flock, but near Maimana several hundreds in and around a village which was situated at the entrance to a canyon. At Haibak I observed a flock of about 500 individuals. It may have contained all the local population, for I did not see any single birds or small flocks.

(385). *Corvus frugilegus frugilegus* Linné – Rook

The Rook is only a winter visitor to Afghanistan. During December 1947 and January 1948 and 1949 I saw large flocks, counting up to several hundreds, around Kabul. On February 21, 1948, I saw a single bird at Jalalabad, and on February 16, 1949, several flocks in the Logar Valley and further south along the road to Mukur. From this town down to Kandahar the Rook was less numerous. In the morning of the 19th many black "crows", presumably rooks, passed in southern direction over Kandahar.

(386). *Corvus macrorhynchos intermedius* Adams – Jungle Crow

Gusalek, Wama, Pashki, and Stiewe, Nuristan, 27. ii.–22. vi. 48.

Wing 8 ♂♂: 331–348 (341,3); ♀♀ 6 ad.: 315–335 (328,0); subad.: 305
 Tail 7 ♂♂: 210–230 (218,4); ♀♀ 6 ad.: 192–222 (207,0)
 Difference central/outer rectrices 7 ♂♂: 24–56 (41,3); 6 ♀♀: 34–49 (41,7)
 Bill from skull 8 ♂♂: 56–59 (57,9); ♀♀ 6 ad.: 53–57 (54,5); subad.: 54

The series consists of 15 specimens which all, except one, seem to be adult. The exception, a female collected on June 22, was in badly worn plumage and moulting the rectrices and secondaries. Its oviduct was juvenile, and the ovary contained quite small follicles. Presumably it is a one year old bird. None of the other specimens was moulting.

I have not compared the series with material from Kashmir (type locality of *intermedius*), but the birds undoubtedly belong to *intermedius*. The colour of the base of the nape feathers is pale grey. The back is glossy green.

The Jungle Crow occurs only in the wooded parts of eastern Afghanistan where I found it to be rather abundant in the Pech-Parun Valley in Nuristan. It occurred at all our stations from Gusalek to Stiewe and lived at all elevations from the bottom of the valley up to the tree limit.

They were in pairs or small flocks when we arrived at the end of February, but the breeding season does not seem to begin until the end of April. In four males collected between February 27 and April 25 the testes increased from 3×4 to 11×8 . In one specimen from April 27 they were fully developed and measured 15×12 . This male was collected together with its mate which was just about to lay for it had an oviduct of maximum size and its ovary contained five large, red-yellow follicles with diameters from 22 to 9 mm. In four females from March the sex organs were still small, in one from April 11 the follicles were slightly enlarged (up to 3 mm.). On May 11 a male was building on a nest which was placed in an *Abies* tree. In this male the testes measured 17×9 . On June 23 a nest at Stiewe contained two young (weight 300 g.). The nest was placed at a height of about 10 m.

in a walnut tree. It was built of rather thin sticks and lined with hairs and other soft material.

Its voice reminded me in some degree of that of *Corvus corone*, e. g. the familiar *kra-kra-kra* is often heard, but besides this note it has several others which I do not know from the crow.

(387). *Corvus corone* – Crow

a. *Corvus corone orientalis* Eversmann – Carrion Crow

b. *Corvus corone sharpii* Oates – Hooded Crow

Corvus sharpii Oates, Fauna Brit. Ind. Birds 1: 20 (1889 – Siberia, Turkestan, Afghanistan, and a portion of India. Type from Nurdan, NWF-Province)

a. Saroti Kotal, E Afghanistan

25. v. 49. ♀ 10×7 wi. 335 tl. 203 bs. 51

Sar-i-Chashma, Maidan, E Afghanistan

10. vi. 49. ♂ 7×4 — 345 — 206 — 55

Kwaja Chisht, W Afghanistan

18. vii. 49. ♀ 7×5 — (322) — — — 52

19. vii. 49. ♀ 12×6 — 320 — 195 — 48

18. vii. 49. ♀ 11×7 — 333 — 197 — 49

19. vii. 49. ♀ 3×2 — 327 — 191 — 48 juv.

b. Qaisar, NW Afghanistan

26. vii. 49. ♂ 5×4 — 338 — — — 52

♂ 4×2 — 332 — 198 — 52

o — 316 — 180 — 49 juv.

The Carrion Crow is the breeding crow of most parts of Afghanistan, but the Hooded Crow occurs along the northwestern border of the country and the two races form here a zone of hybridization.

Observations during the breeding season.

South-eastern Afghanistan: On May 23–26, 1949, I saw some single birds and pairs of Carrion Crow between Tera Kotal and Gardez, and near the Saroti Kotal, east of Gardez. The specimen collected and the voice of the black crows observed showed that they were all Carrion Crows, not the Jungle Crow which was also to be expected in this region as WARDLAW RAMSAY (1880: 62) found it to be very abundant in the Hariab Valley. – On June 9, 10, and 19 there were several Carrion Crows in the Maidan Valley, especially in the upper part around Sar-i-Chashma. But we did not see any when we proceeded from there over the Unai Kotal to Panjao in Hazarajat. On May 10 and June 24 we saw a few in cultivated areas along the road between Kabul and Mukur.

Northeastern Afghanistan: I did not find the Carrion Crow in Nuristan where the Jungle Crow was abundant, but as soon as we crossed the Hindukush to Badakhshan we found it during July 1948 at many localities in the Kokcha, Warduj, and Sanglich valleys at altitudes below 2700 m. The Jungle Crow was never seen in this province.

Southern and western Afghanistan: We did not see any crow during our drives in May and June between Kandahar and Farah, nor during our stay at Shin Dand where we collected June 28–30, 1949. There was also none in the Hari Rud Valley between the Iranian border and Herat, but on July 11 and 12 I saw and heard two Carrion Crows in the side valley at Obeh at an altitude of about 1900 m. Further up the main valley the crows got more abundant. On the 18th I saw several along the road to Kwaja Chisht, among them a flock of about 20 individuals which all looked pure black. The next day I saw 40 crows which were searching for food on a meadow along the river. They all seemed to be pure *orientalis* but when I got them to fly off I saw that in a single one the black head contrasted with the greyish black body feathers. In the three adult specimens collected at this locality the plumage was badly worn, and they were moulting the wing and tail feathers. They were all intermediates between the Carrion and the Hooded Crow but closest to the former. One specimen had some grey feathers on breast and back. In another the grey bases of the nape feathers were slightly more developed than in pure *orientalis*, and the feathers of the abdomen were partly greyish black. In the third specimen the greyish bases of both nape and breast feathers were more distended than in pure *orientalis*. – On July 22 I saw a flock of a dozen crows in the valley south of the Sauzak Kotal, northeast of Herat. They all looked black. All the crows which I saw in the Hari Rud system were pure Carrion Crows or intermediates very close to it, not a single real grey crow was seen.

Northern Afghanistan: VAURIE (1954, Am. Mus. Nov. 1668: 19) examined large series from Afghanistan, and found that the populations of Afghan Turkestan west of the Surkhab, those of the Bend-i-Turkestan, and those of the Paropamisus all the way to the border of Iran showed all sorts of intermediates. During July 1949, I travelled through some of these regions where I also found both races and intermediates, but the Hooded Crow is undoubtedly the dominating form along the northwestern border of the country. At Qala Nau the only two crows seen looked fully black. On July 25 I saw two Hooded Crows at Bala Murghab in which the grey feathers seemed a little dark. The next day we saw the first six crows at Chahar Shamba between Bala Murghab and Maimana. They were Hooded, but one of them had a slightly dark appearance. The next flock consisted of

20 Hooded and three Carrion Crows. A little later a few, mostly grey, crows were observed. East of Qaisar we collected four specimens (of which only three are in the list above). Three were pure grey, one showed a darkening of the grey feathers on the back and of the undertail coverts. On the 28th we saw in all eight crows between Maimana and Andkhui, and they were Hooded Crows, but in one of them the grey colour was a little dark. On the next day there were a few grey crows in the vicinity of Andkhui, one of them was a young one, smaller than the others. They flew for some time in flock with some *Corvus ruficollis*. I am not quite sure about the occurrence of Carrion Crows at Andkhui, but I think that all the black "crows" we saw there were *Corvus ruficollis* (and *C. subcorax* ?). No crows were seen on the last part of our drive from Andkhui over Aq Chah and Mazar-i-Sharif to Tashkurghan, but at Haibak we saw again several Carrion Crows. At Doab, north of Darra-i-Shikari (June 3, August 6, 1949), also this form.

Observations during the winter.

When on February 22, 1948, we drove up the Kunar Valley to Chagha Sarai, single black crows or small parties were common in the cultivated fields. Presumably, they were Carrion Crows, but it cannot be excluded that they may have been Jungle Crows which breed in the neighbouring wooded mountains. Not a single one was seen when we returned by the same road on August 9.

From the middle of December 1947 to the middle of February 1948 and during January 1949 I saw on several occasions a few Hooded Crows, but never a Carrion Crow, in and around Kabul. – On February 16, 1949, a few Hooded Crows were seen on a drive through the Logar Valley and further south until Mukur, and on the 20th one again west of Kandahar.

While my observations in northwestern Afghanistan supply some information from one of the more unknown regions in MEISE's valuable study (1928, Jour. Ornith. 76) on these crows, the same was not the case as to Seistan. CUMMING (1905: 686) writes about the Hooded Crow: "This Grey Crow is found mostly in the tamarisk jungle of Seistan in twos and threes; but at times, during the winter, large flocks are to be seen in the open fields." And about the Carrion Crow he writes: "This is a common bird in Seistan during the winter and is frequently seen near dwellings. I shot a specimen on the 20th March 1905." MEISE (l. c., p. 19) concludes from these observations that the breeding of *sharpii* in Seistan is very probable. SARUDNY (1911: 219–220), who has made extensive observations in Iranian Seistan, lists, however, *sharpii* only as a winter visitor in Seistan,

and the Carrion Crow is listed neither as a winter visitor, nor as a breeding bird. During my stay on the Lower Farah Rud from the end of February to medio April, 1949, I did not see a Hooded Crow, and the Carrion Crow I did not identify with certainty, but on March 28–30 I saw a few black crows which most likely were *C. orientalis*.

As to the Carrion Crow shot by CUMMING and mentioned above, WHISTLER (1944: 512) suggests that it might have been a Jungle Crow. I think, however, that this probability is very small, because the Jungle Crow in Afghanistan seems to be restricted to the eastern wooded mountains.

(388). *Corvus ruficollis* Lesson – Brown-necked Raven

Andkhui, N Afghanistan

29. vii. 49.	♂	2×3	wi. 369	tl. 197	bs. 65
	♂	3×1½	— 395	— 201	— 63
	♀		— 374	— 204	— 59
	♀	6×3	— 365	— 201	— 55

These four specimens are in the postjuvenile moult. I have not been able to compare with other juvenals of *ruficollis*. Compared with three Danish *C. c. corax* in juvenile plumage they are not only very small, but the glossy feathers are a deep blue, not purple, and the colour of the under parts is blackish brown, not earth brown.

Three of the specimens were taken from a flock of 15 in the sun burned fields around Andkhui. A few smaller flocks were also seen. Several other black “crows” in the vicinity could not be identified, but it was my impression that two species were represented.

The Brown-necked Raven was not previously recorded from northern Afghanistan, but since it inhabits Transcaspia and parts of Turkestan it is not surprising to find it in this desertlike corner of northwestern Afghanistan. Whether it occurs in other parts of the country is still an open question although SWINHOE (1882: 111) and ST. JOHN (1889: 168) list this species as well as *C. corax* as common breeding birds in the province of Kandahar in southern Afghanistan; WHISTLER (1944: 512), however, examined their material of ravens consisting of 10 specimens which are now in the British Museum, and found that they all belong to *laurencei* (= *subcorax*), and WHISTLER “cannot help feeling that SWINHOE and ST. JOHN were deceived by immature and worn birds – . . . of *laurencei* . . .”. I passed several times through the province of Kandahar but did no collecting. The ravens I saw, however, presumably all belonged to one and the same form, namely *subcorax*.

(389). *Corvus corax subcorax* Severtzov – Raven

Tashkurghan, N Afghanistan

I. viii. 49. ♂ 6×4 wi. 465 bs. 81

Bamian, Central Afghanistan, 9. ix.–10. x. 49.

Wing ♂♂ ad.: 440, 454, 465, 483; subad.: 443

♀♀: 429, 433, 439, 441, 449

Bill from skull

♂♂ ad.: 75, 76, 77, 81; subad.: 73; ♀♀: 66, 67, 68, 69, 70

Most of the adult birds are in the postnuptial moult. In three females collected between September 30 and October 10 this moult is completed. The wing length seems to be intermediate between *tibetanus* (Himalayas from Kashmir) and *subcorax* (= *laurencei*; Palestine to Turkestan and northwestern India), but closest to this last subspecies.

The Raven is widely distributed in Afghanistan, but occurs in varying number in the different provinces.

Northeastern Afghanistan: It seems to be very rare in Nuristan where we saw single birds on March 20 at Gusalek, and on April 9 and 10 at Wama in the Pech Valley. It was just as scarce in those parts of Badakhshan which we visited during July for I saw one Raven only, namely on the 15th between Zebak and Sanglich.

Eastern Afghanistan: During December and January it was seen at several localities between the Khyber Kotal and Kabul, and during the winter months it was not uncommon around Kabul where, however, I did not notice it during the spring and summer. – On May 23 and 26, 1949, I saw a few in the southern part of the Logar Valley, and several around the Tera Kotal.

Southern Afghanistan: On February 20–22 I saw several Ravens between Kandahar and Farah. Most of them were presumably stragglers from the mountains for on our drives in April, May, and June we saw very few along this road. – During our stay on the Lower Farah Rud in Seistan we saw some few black “crows” which may have been Ravens. The last four occurred on April 16. It is at any rate very scarce in Seistan.

Western Afghanistan: It was rather rare also in this part of the country. On June 29, 1949, I saw two at Shin Dand, and during July a few between Tirpul and Kwaja Chisht in the Hari Rud Valley.

Northern Afghanistan: It may occur together with *C. ruficollis* at Andkhui, but I did not collect any specimens. I saw it, however, on several occasions east of Mazar-i-Sharif, both down in the steppe and in the mountains between Tashkurghan and Haibak, and further on to Pul-i-Khumri in the Surkhab Valley.

Central Afghanistan: In the middle of June, 1949, I saw a few between the Unāi Kotal and Panjao in eastern Hazarajat, and on August 7, September 5, and October 18 around the Shibar Kotal. I found the Raven most common, however, in the Bamian Valley and in the valleys to the west, in the direction of Band-i-Amir. On a visit in the beginning of June it occurred in pairs or in family parties, in September and October most in small flocks which came down to the harvested fields during the day and withdrew to the mountains for the night.

V. Tentative list of Afghan birds

Our knowledge of the Afghan bird fauna is still very fragmentary. Undoubtedly future collecting will bring to light several species not yet recorded from the country, and in particular one might desire that they will provide a better basis for a consideration of the status of individual species in Afghanistan than is possible at present.

On this background it may seem premature to present a check-list of the Afghan bird fauna when the list is known to be subject to criticism on many points and when it may be out of date within a short time – one might even hope this to be so. When after all I have decided to compile the list a number of circumstances have been used as an excuse. First and foremost I can imagine that it may be a help to persons who in connection with other research may want quick information on what we to-day believe is the status of a given species in Afghanistan and who would otherwise have to consult the observations scattered throughout the literature.

My conclusions are based partly on my own experiences in Afghanistan and partly on the relevant literature; in case of doubt the status of a given species in the neighbouring countries has also been considered. Concerning this point certain approximations have been made as to Seistan. The status of the species which have been recorded from Afghan Seistan is often based upon Sarudny's comprehensive studies in Iranian Seistan, just beyond the border. On the other hand species which have been recorded from Iranian but not from Afghan Seistan were not included in the list.

Another advantage of a check-list is that it clearly shows the points on which we lack information and also whether new observations are in accordance with current opinion.

During my stay in Afghanistan I often felt that Afghans as well as Europeans and Americans who took an interest in ornithology were in need of an introduction to the Afghan bird fauna. In the first place a handbook is needed but although my contribution cannot replace a hand-

book it is hoped that the check-list may prove useful in conjunction with Stuart Baker's and Whistler's handbooks of Indian birds and provide a certain measure of guidance such that people living in Afghanistan may become interested in the subject and thereby contribute much towards an increased knowledge of the ornithology of the country.

In spite of shortcomings and misinterpretations of the often scanty information it is hoped that after all the list may prove useful in serving some of the purposes which have been mentioned.

The terminology used in the list to characterize the status of the species can hardly cause misunderstanding. It should perhaps be pointed out that breeding birds may have different status, and that they may be characterized as

1. residents: the species occur in the breeding area throughout the year or migrate at most into adjacent districts, e. g. leaving the high ground during the winter,
2. summer visitors: typical migrants which leave the breeding area during the winter,
3. breeding: this term is used when our present knowledge is insufficient to assign a species to categories 1 or 2.

Podicipitiformes

Podicipidae

1. *Podiceps ruficollis capensis* – Little Grebe
Breeding Seistan. Passage migrant. Winter visitor
2. *Podiceps cristatus cristatus* – Great Crested Grebe
Breeding Seistan? – Passage migrant. Winter visitor.

Pelecaniformes

Pelecanidae

3. *Pelecanus onocrotalus* – White Pelican
Passage migrant. Winter visitor? (Seistan).

Phalacrocoracidae

4. *Phalacrocorax carbo sinensis* – Common Cormorant
Presumably breeding Seistan and Badakhshan. Wintering Seistan.
5. *Phalacrocorax niger* – Little Cormorant
Straggler.
6. *Phalacrocorax pygmaeus* – Pygmy Cormorant
Passage migrant. Breeding Seistan?

Ciconiiformes

Ardeidae

7. *Ardea cinerea cinerea* – Common Heron
Winter visitor. Passage migrant. Breeding: Seistan? Danaghori?

8. *Ardea purpurea purpurea* – Purple Heron
Passage migrant. Breeding Seistan?
9. *Egretta alba alba* – Large Egret
Passage migrant. Winter visitor. Breeding Seistan?
10. *Egretta garzetta garzetta* – Little Egret
One record. Breeding Seistan?
11. *Nycticorax nycticorax nycticorax* – Night Heron
Breeding. Winter visitor.
12. *Ixobrychus minutus minutus* – Little Bittern
Sporadically breeding (?). Winter visitor. Passage migrant.
13. *Botaurus stellaris stellaris* – Bittern
Breeding. Passage migrant. Winter visitor.

Ciconiidae

14. *Ciconia ciconia asiatica* – White Stork
Scarce passage migrant.
15. *Ciconia nigra* – Black Stork
Passage migrant. Breeding Hazarajat?

Threskiornithidae

16. *Plegadis falcinellus falcinellus* – Glossy Ibis
Passage migrant. Breeding N and SW?
17. *Platalea leucorodia leucorodia* – Spoonbill
Passage migrant. Winter visitor. Breeding Seistan?

Phoenicopteriformes

Phoenicopteridae

18. *Phoenicopterus ruber roseus* – Flamingo
Scarce passage migrant. Winter visitor. Breeding Ab-i-Istada.
19. *Phoeniconaias minor* – Lesser Flamingo
Rare straggler.

Anseriformes

Anatidae

20. *Cygnus cygnus* – Whooper Swan
Winter visitor Seistan.
21. *Cygnus olor* – Mute Swan
Breeding Seistan. Winter visitor.
22. *Anser anser* – Grey Lag Goose
Breeding Seistan. Winter visitor. Passage migrant.
23. *Anser albifrons albifrons* – White-fronted Goose
Rare passage migrant.
24. *Anser indicus* – Bar-headed Goose
Passage migrant. Breeding Wakhan?
25. *Tadorna ferruginea* – Ruddy Sheldrake
Breeding. Passage migrant. Winter visitor.
26. *Tadorna tadorna* – Sheldrake
Breeding Seistan, Ab-i-Istada. Passage migrant. Winter visitor.

27. *Anas platyrhynchos platyrhynchos* – Mallard
Breeding. Passage migrant. Winter visitor.
28. *Anas querquedula* – Garganey
Breeding Seistan? Passage migrant.
29. *Anas crecca crecca* – Teal
Breeding? (Seistan, Danaghor). Passage migrant. Winter visitor.
30. *Anas falcata* – Falcated Teal
Straggler.
31. *Anas acuta acuta* – Pintail
Passage migrant. Winter visitor.
32. *Anas angustirostris* – Marbled Duck
Breeding Seistan, Afghan Turkestan. Passage migrant.
33. *Anas penelope* – Wigeon
Passage migrant. Winter visitor.
34. *Anas strepera* – Gadwall
Passage migrant. Winter visitor. Breeding? (Seistan, Hari Rud).
35. *Anas clypeata* – Shoveller
Passage migrant. Winter visitor. Breeding Seistan?
36. *Netta rufina* – Red-crested Pochard
Passage migrant. Winter visitor. Breeding Seistan; Hari Rud?
37. *Aythya ferina* – Common Pochard
Passage migrant. Winter visitor.
38. *Aythya fuligula* – Tufted Duck
Passage migrant. Winter visitor.
39. *Aythya nyroca* – White-eyed Pochard
Passage migrant. Winter visitor. Breeding Seistan, Hari Rud.
40. *Bucephala clangula clangula* – Goldeneye
Passage migrant. Winter visitor.
41. *Oxyura leucocephala* – Stiff-tailed Duck (White-headed Duck)
Breeding Seistan. Scarce passage migrant. Winter visitor.
42. *Mergus albellus* – Smew
Scarce passage migrant. Winter visitor.
43. *Mergus merganser orientalis* – Goosander
Breeding Wakhan.
44. *Mergus serrator* – Red-breasted Merganser
Rare winter visitor.

Falconiformes

Accipitridae

45. *Elanus caeruleus vociferus* – Black-winged Kite
Status uncertain.
46. *Milvus migrans* – Black Kite
migrans – Breeding
govinda – Straggler
lineatus – Passage migrant.
47. *Accipiter badius cenchroides* – Shikra (Levant Sparrow Hawk)
Passage migrant. Breeding Afghan Turkestan.
48. *Accipiter nisus nisosimilis* – Sparrow Hawk

- Breeding Nuristan. Passage migrant. Winter visitor.
49. *Buteo rufinus rufinus* – Long-legged Buzzard
Breeding Safed Koh (E. Afgh.), Nuristan, ? Badakhshan.
Passage migrant. Winter visitor.
 50. *Buteo buteo vulpinus* – Steppe Buzzard
Passage migrant.
 51. *Hieraaëtus fasciatus fasciatus* – Bonelli's Eagle
One record. Status unknown.
 52. *Hieraaëtus pennatus pennatus* – Booted Eagle
Status uncertain. Breeding Nuristan?
 53. *Aquila chrysaëtos chrysaëtos* – Golden Eagle
Status uncertain. Breeding?
 54. *Aquila heliaca heliaca* – Imperial Eagle
Winter visitor.
 55. *Aquila rapax (vindhiana)* – Tawny Eagle
One sight record only.
 56. *Aquila nipalensis (orientalis)* – Steppe Eagle
Passage migrant. Winter visitor?
 57. *Aquila clanga* – Greater Spotted Eagle
Status uncertain. (Passage migrant. Winter visitor).
 58. *Haliaeetus leucoryphus* – Pallas's Fishing Eagle
Status uncertain. Probably winter visitor to W Afghanistan.
 59. *Haliaeetus albicilla* – White-tailed Eagle
Presumably passage migrant and winter visitor.
 60. *Aegypius monachus* – Black Vulture
Status uncertain, presumably passage migrant and winter visitor. Breeding?
 61. *Gyps fulvus fulvus* – Griffon Vulture
Breeding? Winter visitor.
 62. *Pseudogyps bengalensis* – White-backed Vulture
Straggler from India.
 63. *Neophron percnopterus percnopterus* – Egyptian Vulture
Resident or summer visitor.
 64. *Gypaëtus barbatus aureus* – Bearded Vulture
Resident.
 65. *Circus cyaneus cyaneus* – Hen Harrier
Winter visitor. Passage migrant.
 66. *Circus macrourus* – Pallid Harrier
Passage migrant. Winter visitor.
 67. *Circus pygargus* – Montagu's Harrier
Passage migrant.
 68. *Circus aeruginosus aeruginosus* – Marsh Harrier
Breeding. Passage migrant. Winter visitor.
 69. *Circaëtus gallicus gallicus* – Short-toed Eagle
Passage migrant.
 70. *Pandion haliaetus haliaetus* – Osprey
Passage migrant.

Falconidae

71. *Falco cherrug cherrug* – Saker Falcon
Status uncertain.

72. *Falco juggar* – Laggar Falcon
Breeding SE?
73. *Falco peregrinus babylonicus* – Peregrine Falcon
Breeding.
74. *Falco subbuteo subbuteo* – Hobby
Summer visitor. Passage migrant.
75. *Falco columbarius insignis* – Merlin
Passage migrant. Winter visitor.
76. *Falco vespertinus subsp.?* – Red-legged Falcon
Passage migrant.
77. *Falco naumanni naumanni* – Lesser Kestrel
Passage migrant.
78. *Falco tinnunculus* – Kestrel
tinnunculus – Passage migrant.
stegmanni – Breeding. Passage migrant.

Galliformes

Phasianidae

79. *Ammoperdix griseogularis* – Seesee Partridge
griseogularis – Resident S (and E?)
peraticus – Resident NW (and N?).
80. *Tetraoallus himalayensis* – Snowcock
himalayensis – Resident Hindukush, Paghman, (Safed Koh?).
bendi – Resident Bend-i-Turkestan.
81. *Alectoris graeca* – Chukor (Rock Partridge)
koroviakovi – Resident S?
falki – Resident central highlands.
pallescens – Resident Wakhan.
chukar – Resident Nuristan.
82. *Francolinus francolinus bogdanovi* – Black Partridge
Resident S.
83. *Coturnix coturnix coturnix* – Quail
Summer visitor. Passage migrant.
84. *Lophophorus impejanus* – Monal
Resident Nuristan, Safed Koh.
85. *Pucrasia macrolopha castanea* – Koklas
Resident Nuristan.
86. *Phasianus colchicus* – Pheasant
principalis – Resident Murghab and Hari Rud valleys
bianchii – Resident Oxus Valley.

Gruiformes

Gruidae

87. *Grus grus lilfordi* – Crane
Passage migrant. Winter visitor? (Seistan).
88. *Grus leucogeranus* – Siberian Crane
One record only. Presumably regular passage migrant.
89. *Anthropoides virgo* – Demoiselle Crane
Passage migrant.

Rallidae

90. *Rallus aquaticus korejewi* – Water Rail
Status uncertain.
91. *Crex crex* – Corncrake
Status uncertain, possibly summer visitor and passage migrant.
92. *Porzana parva parva* – Little Crake
Passage migrant.
93. *Porzana pusilla pusilla* – Baillon's Crake
Breeding? Passage migrant.
94. *Porzana porzana* – Spotted Crake
Passage migrant.
95. *Gallinula chloropus indicus* – Moorhen
Breeding. Winter visitor?
96. *Porphyrio porphyrio seistanicus* – Purple Coot (Purple Gallinule)
Resident Seistan. Winter visitor?
97. *Fulica atra atra* – Coot
Resident. Winter visitor. Passage migrant.

Otididae

98. *Otis tetrax orientalis* – Little Bustard
Passage migrant. Winter visitor.
99. *Otis tarda subsp.* – Great Bustard
Winter visitor (Afghan Turkestan).
100. *Chlamydotis undulata macqueenii* – Houbara Bustard
Breeding? Winter visitor. Passage migrant.

*Charadriiformes**Rostratulidae*

101. *Rostratula benghalensis benghalensis* – Painted Snipe
Status uncertain. No record from last 100 years.

Haematopodidae

102. *Haematopus ostralegus longipes* – Oystercatcher
Status uncertain. Breeding? Passage migrant?

Charadriidae

103. *Chettusia leucura* – White-tailed Lapwing (White-tailed Plover)
Breeding? Winter visitor. Passage migrant.
104. *Chettusia gregaria* – Sociable Lapwing (Sociable Plover)
Passage migrant.
105. *Vanellus vanellus* – Lapwing
Winter visitor. Passage migrant.
106. *Lobivanellus indicus aigneri* – Red-wattled Lapwing (Red-wattled Plover)
Breeding.
107. *Charadrius dominicus fulvus* – Asiatic Golden Plover
Straggler.
108. *Charadrius dubius curonicus* – Little Ringed Plover
Summer visitor. Passage migrant. Winter visitor.

109. *Charadrius alexandrinus alexandrinus* – Kentish Plover
Breeding. Passage migrant. Winter visitor.
110. *Charadrius mongolus (pamirensis)* – Lesser Sand Plover
Passage migrant. Only one record.
111. *Charadrius leschenaultii* – Large Sand Plover
Status uncertain. (Breeding?)

Scolopacidae

112. *Numenius arquata arquata* – Curlew
Passage migrant. Winter visitor.
113. *Limosa limosa limosa* – Black-tailed Godwit
Passage migrant. Winter visitor.
114. *Tringa totanus subsp.* – Redshank
Breeding? Passage migrant. Winter visitor.
115. *Tringa stagnatilis* – Marsh Sandpiper
Only two records.
116. *Tringa nebularia* – Greenshank
Passage migrant. Winter visitor.
117. *Tringa ochropus* – Green Sandpiper
Passage migrant. Winter visitor.
118. *Tringa glareola* – Wood Sandpiper
Passage migrant. Winter visitor.
119. *Tringa hypoleucos* – Common Sandpiper
Summer visitor. Passage migrant. Winter visitor?
120. *Capella solitaria solitaria* – Solitary Snipe
Scarce winter visitor.
121. *Capella gallinago gallinago* – Common Snipe
Breeding? Passage migrant. Winter visitor.
122. *Scolopax rusticola rusticola* – Woodcock
Passage migrant. Winter visitor.
123. *Lymnocyptes minimus* – Jack Snipe
Passage migrant. Winter visitor.
124. *Crocethia alba* – Sanderling
Passage migrant.
125. *Calidris minuta* – Little Stint
Passage migrant.
126. *Calidris temminckii* – Temminck's Stint
Passage migrant.
127. *Calidris alpina alpina* – Dunlin
Winter visitor. (Passage migrant).
128. *Philomachus pugnax* – Ruff
Passage migrant (spring only?).

Recurvirostridae

129. *Himantopus himantopus himantopus* – Black-winged Stilt
Breeding? Passage migrant.
130. *Recurvirostra avosetta avosetta* – Avocet
Breeding? Passage migrant.

Phalaropodidae

131. *Phalaropus lobatus* – Red-necked Phalarope
Passage migrant.

Burhinidae

132. *Burhinus oedicnemus astutus* – Stone Plover
Breeding (resident?).

Glareolidae

133. *Cursorius cursor (cursor)* – Cream-coloured Courser
Breeding. Passage migrant. Winter visitor.
134. *Glareola glareola glareola* – Collared Pratincole
One record. Status uncertain.
135. *Glareola lactea* – Small Indian Pratincole
One record. Status uncertain.

Laridae

136. *Larus argentatus* – Herring Gull
cachinnans (?) – Breeding ? – Scarce passage migrant.
heuglini (?) – Passage migrant.
137. *Larus ichthyaëtus* – Great Black-headed Gull
Passage migrant.
138. *Larus ridibundus* – Black-headed Gull
Passage migrant. Winter visitor.
139. *Larus genei* – Slender-billed Gull
Breeding. Passage migrant.
140. *Chlidonias hybrida indica* – Whiskered Tern
Two records only. Status uncertain.
141. *Gelochelidon nilotica nilotica* – Gull-billed Tern
Summer visitor. Passage migrant.
142. *Hydroprogne tschegrava tschegrava* – Caspian Tern
Breeding?
143. *Sterna hirundo hirundo* – Common Tern
Summer visitor.
144. *Sterna albifrons albifrons* – Little Tern
Summer visitor. – Passage migrant?

*Columbiformes**Pteroclididae*

145. *Pterocles alchata caudacutus* – Large Pin-tailed Sandgrouse
Resident.
146. *Pterocles senegallus* – Spotted Sandgrouse
One record, S.
147. *Pterocles orientalis subsp.* – Imperial Sandgrouse (Black-bellied
Sandgrouse)
Breeding. Passage migrant. Winter visitor.
148. *Pterocles coronatus atratus* – Coronetted Sandgrouse (Crowned
Sandgrouse)
Breeding S and W.

Columbidae

149. *Columba leuconota leuconota* – Snow Pigeon
Resident NE.
150. *Columba rupestris turkestanica* – Hill Pigeon
Breeding NE.
151. *Columba livia* – Rock Pigeon
gaddi – Resident, except Nuristan
neglecta – Resident Nuristan.
152. *Columba oenas* (*subsp.?*) – Stock Dove
Rare winter visitor.
153. *Columba eversmanni* – Eastern Stock Dove
Breeding N and W.
154. *Columba palumbus casiotis* – Wood Pigeon
Breeding.
155. *Streptopelia turtur arenicola* – Common Turtle Dove
Summer visitor. Passage migrant.
156. *Streptopelia orientalis meena* – Eastern Turtle Dove
Summer visitor. Passage migrant.
157. *Streptopelia decaocto decaocto* – Indian Ring Dove (Collared Turtle Dove)
Summer visitor.
158. *Streptopelia tranquebarica tranquebarica* – Red Turtle Dove
Status uncertain. Single sight record (Jalalabad).
159. *Streptopelia chinensis suratensis* – Spotted Dove
Status uncertain. Only sight records.
160. *Streptopelia senegalensis* – Little Brown Dove (Laughing Dove)
cambayensis – Resident or summer visitor S
ermanni – Resident or summer visitor N.

*Psittaciformes**Psittacidae*

161. *Psittacula himalayana himalayana* – Slaty-headed Parakeet
Summer visitor Nuristan.

*Cuculiformes**Cuculidae*

162. *Cuculus canorus* – Cuckoo
canorus – Summer visitor NE.
subtelephonus – Summer visitor. Passage migrant.

*Strigiformes**Strigidae*

163. *Otus brucei* – Striated Scops Owl
One record (Wakhan). Breeding?
164. *Otus scops pulchellus* – Scops Owl
Breeding? (Kandahar).
165. *Bubo bubo turcomanus* – Eagle Owl
Resident.
166. *Athene noctua bactriana* – Little Owl
Resident.

167. *Strix aluco biddulphi* – Wood Owl (Tawny Owl)
Resident NE, E.
168. *Asio otus otus* – Long-eared Owl
Scarce winter visitor and passage migrant.
169. *Asio flammeus flammeus* – Short-eared Owl
Scarce winter visitor and passage migrant.

Caprimulgiformes

Caprimulgidae

170. *Caprimulgus europaeus* – European Nightjar
unwini – Summer visitor. Passage migrant.
plumipes – Scarce passage migrant (?).
171. *Caprimulgus aegyptius aegyptius* – Egyptian Nightjar
Summer visitor SW, W.
172. *Caprimulgus mahrattensis* – Syke's Nightjar
Summer visitor.
173. *Caprimulgus asiaticus asiaticus* – Indian Nightjar
Straggler? One record.

Apodiformes

Apodidae

174. *Apus melba tuneti* – Alpine Swift
Summer visitor. Passage migrant.
175. *Apus apus pekinensis* – Common Swift
Summer visitor. Passage migrant.
176. *Apus affinis galilejensis* – Indian Swift (White-rumped Swift)
Summer visitor. Passage migrant.

Coraciiformes

Alcedinidae

177. *Ceryle rudis leucomelanura* – Pied Kingfisher
Breeding S, NE.
178. *Alcedo atthis pallasii* – Common Kingfisher
Resident. Summer visitor.
179. *Halcyon smyrnensis smyrnensis* – White-breasted Kingfisher
Resident NE? Two records.

Meropidae

180. *Merops apiaster* – Common Bee-eater
Summer visitor. Passage migrant.
181. *Merops superciliosus persicus* – Blue-cheeked Bee-eater
Summer visitor. Passage migrant.
182. *Merops orientalis beludschicus* – Little Green Bee-eater
Breeding? Two sight records (Jalalabad).

Coraciidae

183. *Coracias garrulus semenowi* – Roller
Summer visitor. Passage migrant.

Upupidae

184. *Upupa epops* – Hoopoe
epops – Summer visitor (partially resident?). Passage migrant.
orientalis – Summer visitor Nuristan.

*Piciformes**Picidae*

185. *Jynx torquilla torquilla* – Wryneck
 Passage migrant.
186. *Picus squamatus* – Scaly-bellied Green Woodpecker
flavirostris – Resident S, W.
squamatus – Resident E.
187. *Dendrocopos leucopterus leptorhynchus* – White-winged Pied Woodpecker
 Resident N.
188. *Dendrocopos himalayensis albescens* – Himalayan Pied Woodpecker
 Resident E.
189. *Dendrocopos auriceps* – Brown-fronted Pied Woodpecker
 Resident Nuristan.

*Passeriformes**Alaudidae*

190. *Ammomanes deserti* – Desert Finch Lark (Desert Lark)
iranica – Resident SW, W.
orientalis – Resident N.
phoenicuroides – Resident E.
191. *Alaemon alaudipes doriae* – Desert Lark (Bifasciated Lark)
 Resident S.
192. *Calandrella rufescens* – Lesser Short-toed Lark
persica? – Breeding E.
heinei – Passage migrant and/or winter visitor.
193. *Calandrella cinerea* – Short-toed Lark
artemisiana – Status uncertain (breeding? SW).
longipennis – Summer visitor. Passage migrant.
194. *Calandrella acutirostris acutirostris* – Hume's Short-toed Lark
 Summer visitor.
195. *Melanocorypha bimaculata torquata* – Eastern Calandra Lark
 Breeding N. Passage migrant. Winter visitor.
196. *Melanocorypha calandra psammochroa* – Calandra Lark
 Resident N.
197. *Eremophila alpestris albigula* – Horned Lark
 Resident.
198. *Galerida cristata magna* – Crested Lark
 Resident (status of migration uncertain).
199. *Alauda arvensis dulcivox* – Skylark
 Summer visitor N (two records). Passage migrant. Winter visitor.
200. *Alauda gulgula* – Little Skylark
inconspicua – Resident (except Badakhshan).
lhamarum – Resident Badakhshan.

Hirundidae

201. *Riparia riparia* – Sand Martin
diluta – Summer visitor. Passage migrant.
riparia (sive *ijimae*) – Passage migrant.
202. *Riparia paludicola chinensis* – Indian Sand Martin (Grey-breasted Sand Martin)
 Summer visitor (one record).
203. *Hirundo rupestris* – Crag Martin
 Summer visitor.
204. *Hirundo obsoleta pallida* – Pale Crag Martin
 Breeding S? (2 or 3 records).
205. *Hirundo rustica rustica* – Common Swallow
 Summer visitor. Passage migrant.
206. *Hirundo smithii flifera* – Wire-tailed Swallow
 Summer visitor.
207. *Hirundo fluvicola* – Indian Cliff Swallow
 Summer visitor (one record).
208. *Hirundo daurica rufula* – Red-rumped Swallow
 Summer visitor.
209. *Delichon urbica urbica* – House Martin
 Summer visitor. Passage migrant.

Motacillidae

210. *Anthus richardi waitei* – Indian Pipit (Richard's Pipit)
 Summer visitor (?) S.
211. *Anthus campestris* – Tawny Pipit
campestris – Passage migrant.
griseus – Summer visitor. Passage migrant. Winter visitor.
212. *Anthus similis* – Brown Rock Pipit
decaptus – Summer visitor SE.
jerdoni – Summer visitor E.
213. *Anthus trivialis* – Tree Pipit
sibiricus – Passage migrant. Winter visitor?
schlüteri – Passage migrant. Winter visitor. Breeding?
haringtoni – Status uncertain (two records).
214. *Anthus cervinus* – Red-throated Pipit
 Passage migrant.
215. *Anthus roseatus* – Hodgson's Pipit
 Status uncertain (one record).
216. *Anthus spinoletta* – Water Pipit
coutellii – Passage migrant. Winter visitor.
japonicus – Straggler (one record).
217. *Anthus sylvanus* – Upland Pipit
 Presumably resident (one record).
218. *Motacilla flava* – Yellow Wagtail
melanogrisea (Black-headed Wagtail) – Summer visitor. Passage migrant.
beema (Blue-headed Wagtail) – Passage migrant.
thunbergi (Grey-headed Wagtail) – Passage migrant.

219. *Motacilla citreola* – Yellow-headed Wagtail
calcarata – Summer visitor. Passage migrant.
citreola – Passage migrant.
werae – Passage migrant.
220. *Motacilla cinerea cinerea* – Grey Wagtail
 Summer visitor. Passage migrant. Winter visitor.
221. *Motacilla alba* – White Wagtail
personata – Summer visitor. Passage migrant. Winter visitor.
dukhunensis – Passage migrant. Winter visitor.

Campephagidae

222. *Pericrocotus brevirostris brevirostris* – Short-billed Minivet
 Summer visitor E.

Pycnonotidae

223. *Microscelis psaroides psaroides* – Black Bulbul
 Status uncertain. Presumably summer visitor (one record Kunar Valley).
224. *Pycnonotus leucotis leucotis* – White-eared Bulbul
 Resident S.
225. *Pycnonotus leucogenys* – White-cheeked Bulbul
 Resident E.

Laniidae

226. *Lanius collurio* – Red-backed Shrike
phoenicuroides (Rufous Shrike) – Summer visitor. Passage migrant.
isabellina (Isabelline Shrike) – Winter visitor. Passage migrant.
227. *Lanius vittatus nargianus* – Bay-backed Shrike
 Summer visitor.
228. *Lanius senator niloticus* – Woodchat Shrike
 One record. Status uncertain.
229. *Lanius schach erythronotus* – Rufous-backed Shrike
 Summer visitor. Passage migrant.
230. *Lanius minor turanicus* – Lesser Grey Shrike
 Summer visitor.
231. *Lanius excubitor* – Great Grey Shrike
aucheri – One record NW, presumably breeding.
pallidirostris – Winter visitor.

Bombycillidae

232. *Hypocolius ampelinus* – Grey Hypocolius
 Few records. Status uncertain. Probably breeding S.

Cinclidae

233. *Cinclus cinclus leucogaster* – White-bellied Dipper
 Resident W and Central.
234. *Cinclus pallasii tenuirostris* – Brown Dipper
 Resident E and Central.

Troglodytidae

235. *Troglodytes troglodytes* – Wren
tianschanicus – Resident N.
magrathi – Resident SE.
neglectus – Resident Nuristan.

Prunellidae

236. *Prunella collaris rufilata* – Alpine Accentor
Resident E.
237. *Prunella himalayana* – Himalayan Accentor
Resident Badakhshan.
238. *Prunella strophciata jerdoni* – Jerdon's Accentor (Rufous-breasted Hedge Sparrow)
Resident E.
239. *Prunella atrogularis* – Black-throated Accentor
atrogularis – Winter visitor.
huttoni – Winter visitor.
240. *Prunella fulvescens fulvescens* – Brown Accentor
Breeding. (? Resident).

Turdidae

241. *Luscinia megarhynchos hafizi* – Nightingale
Summer visitor.
242. *Luscinia svecica* – Bluethroat
svecica – Passage migrant.
pallidogularis – Passage migrant.
saturationis – Passage migrant.
kobdensis – Passage migrant.
abbotti – Summer visitor.
243. *Luscinia brunnea brunnea* – Indian Bluechat
Summer visitor Nuristan.
244. *Luscinia pectoralis ballioni* – Himalayan Rubythroat
Summer visitor Nuristan.
245. *Irania gutturalis* – Persian Robin (White-throated Robin)
Summer visitor. Passage migrant.
246. *Phoenicurus ochruros phoenicuroides* – Black Redstart
Summer visitor. Passage migrant. Winter visitor.
247. *Phoenicurus frontalis* – Blue-fronted Redstart
Status uncertain. Presumably summer visitor Nuristan.
248. *Phoenicurus erythrogaster grandis* – Gldenstdt's Redstart
Passage migrant.
249. *Phoenicurus erythronotus* – Eversmann's Redstart
Passage migrant. Winter visitor.
250. *Phoenicurus coeruleocephalus* – Blue-headed Redstart
Summer visitor E.
251. *Chaimarrornis leucocephalus* – White-capped Redstart
Resident.
252. *Rhyacornis fuliginosus fuliginosus* – Plumbeous Redstart
Resident NE, E.
253. *Monticola saxatilis* – Rock Thrush
Summer visitor. Passage migrant.
254. *Monticola solitarius* – Blue Rock Thrush
longirostris – Summer visitor W, N, Central. Winter visitor.
pandoo – Summer visitor Nuristan.

255. *Monticola cinclorhynchus* – Blue-headed Rock Thrush
Summer visitor E.
256. *Saxicola torquata maura* – Stonechat
Summer visitor. Passage migrant. Winter visitor.
257. *Saxicola caprata rossorum* – Pied Bush Chat
Summer visitor. Passage migrant. Winter visitor?
258. *Saxicola macrorhyncha* – Stoliczka's Whinchat
Status uncertain (one record).
259. *Saxicoloides fulicata subsp.* – Indian Robin
Status uncertain. One record.
260. *Cercotrichas galactotes familiaris* – Grey-backed Warbler
(Rufous Warbler)
Summer visitor. Passage migrant.
261. *Oenanthe xanthopyrmyna chrysopygia* – Red-tailed Chat
Summer visitor. Passage migrant. Winter visitor.
262. *Oenanthe oenanthe oenanthe* – Common Wheatear
Summer visitor. Passage migrant.
263. *Oenanthe pleschanka pleschanka* – Siberian Chat (Pied Wheatear)
Summer visitor. Passage migrant.
264. *Oenanthe picata* – Pied Chat
Summer visitor. Passage migrant. Winter visitor?
265. *Oenanthe finschii barnesi* – Barne's Chat
Summer visitor. Passage migrant.
266. *Oenanthe deserti* – Desert Chat
atrogularis – Passage migrant. Winter visitor.
oreophila – Summer visitor (intermediates). Passage migrant.
Winter visitor.
267. *Oenanthe isabellina* – Isabelline Chat
Resident. Summer visitor. Passage migrant.
268. *Oenanthe alboniger* – Hume's Chat
Status uncertain, presumably resident S.
269. *Turdus merula intermedius* – Blackbird.
Breeding (resident ?). Winter visitor.
270. *Turdus ruficollis*
ruficollis (Red-throated Thrush) – Rare passage migrant or winter
visitor (one record).
atrogularis (Black-throated Thrush) – Passage migrant. Winter visitor.
271. *Turdus viscivorus bonapartei* – Missel Thrush
Breeding (summer visitor ?).
272. *Myiophonus caeruleus turcestanicus* – Blue Whistling Thrush
Resident.
273. *Enicurus scouleri* – Little Forktail
Resident NE.
274. *Enicurus maculatus maculatus* – Spotted Forktail
Resident Nuristan.

Timaliidae

275. *Turdoides caudatus huttoni* – Common Babbler
Resident S.

276. *Garrulax lineatus* – Streaked Laughing Thrush
gilgit – Summer visitor Nuristan.
bilkevitchi – Summer visitor Badakhshan.
277. *Garrulax variegatus nuristani* – Variegated Laughing Thrush
 Summer visitor Nuristan.

Sylviidae

278. *Phylloscopus collybita* – Chiffchaff
tristis – Passage migrant.
fulvescens – Passage migrant.
sindianus – Status uncertain (two records).
279. *Phylloscopus neglectus* – Plain Brown Willow Warbler
 Breeding W, NE.
280. *Phylloscopus tytleri* – Tytler's Willow Warbler
 Summer visitor Nuristan.
281. *Phylloscopus griseolus* – Olivaceous Willow Warbler
 Summer visitor E, NE.
282. *Phylloscopus schwarzi* – Radde's Bush Warbler
 Vagrant (one record).
283. *Phylloscopus inornatus humei* – Hume's Willow Warbler (Yellow-browed Willow Warbler)
 Summer visitor Badakhshan. Passage migrant.
284. *Phylloscopus subviridis* – Brook's Willow Warbler
 Summer visitor E.
285. *Phylloscopus trochiloides* – Greenish Willow Warbler
ludlowi – Summer visitor Badakhshan.
viridanus – Passage migrant.
286. *Phylloscopus nitidus* – Green Willow Warbler
 Summer visitor W. Passage migrant.
287. *Phylloscopus occipitalis* – Large Crowned Willow Warbler
 Summer visitor E.
288. *Regulus regulus* – Goldcrest
himalayensis – Breeding Nuristan.
tristis – Winter visitor.
289. *Cettia cetti albiventris* – Cetti's Bush Warbler
 Summer visitor. Passage migrant. Winter visitor ?
290. *Luscinola melanopogon mimica* – Moustached Sedge Warbler
 Status uncertain. (Summer visitor ? – Passage migrant).
291. *Locustella naevia* – Grasshopper Warbler
straminea – Passage migrant.
mongolica – Vagrant (one record).
292. *Locustella certhiola* – Pallas's Grasshopper Warbler
rubescens – Passage migrant ? (two records).
centralasiae – Straggler ? (one record).
293. *Acrocephalus arundinaceus zarudnyi* – Great Reed Warbler
 Passage migrant (one record).
294. *Acrocephalus stentoreus brunnescens* – Indian Great Reed Warbler
 (Clamorous Reed Warbler)
 Summer visitor. Passage migrant.

295. *Acrocephalus scirpaceus fuscus* – Reed Warbler
Summer visitor (one record).
296. *Acrocephalus dumetorum* – Blyth's Reed Warbler
Summer visitor. Passage migrant.
297. *Acrocephalus agricola* – Paddy-Field Warbler
Summer visitor ? – Passage migrant.
298. *Acrocephalus concinens harringtoni* – Harrington's Reed Warbler
Summer visitor N.
299. *Hippolais languida* – Upcher's Warbler
Summer visitor.
300. *Hippolais pallida elæica* – Olivaceous Warbler
Summer visitor.
301. *Hippolais caligata* – Sykes's Tree Warbler (Booted Warbler)
caligata – Passage migrant.
rama – Summer visitor. Passage migrant.
302. *Sylvia nisoria merzbacheri* – Barred Warbler
Status uncertain (three records).
303. *Sylvia hortensis jerdoni* – Orphean Warbler
Summer visitor. Passage migrant.
304. *Sylvia communis icterops* – Whitethroat
Passage migrant.
305. *Sylvia curruca* – Lesser Whitethroat
blythi – Passage migrant.
halimodendri – Passage migrant.
306. *Sylvia minula subsp.* – Small Whitethroat
Passage migrant.
307. *Sylvia althaea althaea* – Hume's Whitethroat
Summer visitor.
308. *Sylvia nana nana* – Desert Warbler
Passage migrant.
309. *Sylvia mystacea* – Ménétries's Warbler
Summer visitor. Passage migrant.
310. *Scotocerca inquieta* – Streaked Scrub Warbler
platyura – Resident N, E.
stiata – Resident S.
311. *Prinia gracilis lepida* – Streaked Wren Warbler (Graceful Wren Warbler).
Resident S
312. *Prinia crinigera striatula* – Brown Hill Warbler
Status uncertain (one record), presumably breeding Nuristan.

Muscicapidae

313. *Ficedula parva* – Red-breasted Flycatcher
parva – Passage migrant.
albicilla – Passage migrant.
314. *Ficedula superciliaris superciliaris* – White-browed Blue Flycatcher
Breeding (one record at the east border).
315. *Muscicapa striata neumanni* – Spotted Flycatcher
Summer visitor. Passage migrant.

316. *Muscicapa sibirica gulmergi* – Sooty Flycatcher
Summer visitor E.
317. *Muscicapa ruficauda* – Red-tailed Flycatcher
Summer visitor E.
318. *Terpsiphone paradisi leucogaster* – Paradise Flycatcher
Summer visitor.

Paridae

319. *Parus cyanus flavipectus* – Azure Tit
Resident N.
320. *Parus major* – Grey Tit (Great Tit)
caschmirensis – Resident Nuristan.
decolorans – Resident E.
ziaratensis – Resident SE, W.
bokharensis – Resident N.
ferghanensis – Resident Badakhshan.
321. *Parus rubidiventris rufonuchalis* – Black Tit
Resident E, NW.
322. *Parus melanolophus* – Crested Black Tit
Resident E.

Aegithalidae

323. *Aegithalos leucogenys* – White-cheeked Tit
Resident Nuristan.

Remizidae

324. *Remiz pendulinus* – Penduline Tit
caspius – Passage migrant. Winter visitor ?
coronatus – Breeding Badakhshan. Passage migrant.

Sittidae

325. *Sitta europaea cashmirensis* – Brook's Nuthatch (European Nuthatch)
Resident E.
326. *Sitta leucopsis leucopsis* – White-cheeked Nuthatch
Resident E.
327. *Sitta tephronota tephronota* – Rock Nuthatch
Resident.
328. *Tichodroma muraria nepalensis* – Wall Creeper
Resident.

Certhiidae

329. *Certhia himalayana* – Himalayan Tree Creeper
taeniura – Resident NW.
limes – Resident E.

Nectariniidae

330. *Cinnyris asiatica brevirostris* – Purple Sunbird
Status uncertain. Two records E. Presumably summer visitor.

Zosteropidae

331. *Zosterops palpebrosa egregia* – White Eye
Status uncertain (one record E).

Emberizidae

332. *Emberiza calandra buturlini* – Corn Bunting
Breeding N. (Resident ?).
333. *Emberiza leucocephala leucocephala* – Pine Bunting
Winter visitor. Passage migrant.
334. *Emberiza melanocephala* – Black-headed Bunting
Straggler (one record).
335. *Emberiza bruniceps* – Red-headed Bunting
Summer visitor. Passage migrant.
336. *Emberiza stewarti* – White-capped Bunting
Summer visitor.
337. *Emberiza hortulana* – Ortolan Bunting
Status uncertain (W).
338. *Emberiza buchanani buchanani* – Grey-necked Bunting
Summer visitor. Passage migrant.
339. *Emberiza cia par* – Meadow Bunting (Rock Bunting)
Summer visitor E. Passage migrant ?
340. *Emberiza fucata arcuata* – Grey-headed Bunting
Status uncertain (one record).
341. *Emberiza schoeniclus* – Reed Bunting
pallidior – Winter visitor.
(pyrrhuloides) – Winter visitor.

Fringillidae

342. *Fringilla coelebs coelebs* – Chaffinch
Winter visitor NW.
343. *Fringilla montifringilla* – Brambling
Winter visitor.
344. *Serinus pusillus* – Gold-fronted Finch (Gold-fronted Serin)
Resident.
345. *Chloris chloris turkestanicus* – Greenfinch
One record N, presumably winter visitor.
346. *Carduelis carduelis* – Goldfinch
paropanis – Resident. Winter visitor.
subulata – Winter visitor or straggler (one record).
347. *Carduelis flavirostris korejewi* – Twite
Resident.
348. *Carduelis cannabina bella* – Linnet
Resident.
349. *Leucosticte nemoricola altaica* – Stoliczka's Mountain Finch
Resident NE.
350. *Leucosticte brandti pamirensis* – Brandt's Mountain Finch
Resident NE.
351. *Rhodopechys sanguinea sanguinea* – Crimson-winged Finch
Resident.
352. *Rhodopechys mongolica* – Mongolian Desert Finch
Resident. Winter visitor ?

353. *Rhodopechys githaginea crassirostris* – Trumpeter Bullfinch
Resident.
354. *Rhodopechys obsoleta* – Lichtenstein's Desert Finch
Resident.
355. *Carpodacus erythrinus ferghanensis* – Common Rosefinch
Summer visitor. Passage migrant.
356. *Carpodacus synoicus salimalii* – Sinai Rosefinch
Resident Central.
357. *Carpodacus rhodochlamys grandis* – Red-mantled Rosefinch
Resident E, NW.
358. *Carpodacus rubicilla diabolica* – Great Rosefinch (Caucasian Rosefinch)
Resident NE.
359. *Mycerobas carnipes speculigerus* – White-winged Grosbeak
Resident.
360. *Mycerobas icteroides* – Black-and-Yellow Grosbeak
One record E, presumably resident.
361. *Coccothraustes coccothraustes humii* – Hawfinch
Breeding W. (Resident ?)

Ploceidae

362. *Petronia petronia intermedia* – Rock Sparrow
Resident.
363. *Petronia xanthocollis xanthocollis* – Yellow-throated Sparrow
Breeding (summer visitor ?).
364. *Passer domesticus* – House Sparrow
persicus – Status uncertain (one record). Passage migrant ?
persicus \geq *indicus* – Summer visitor SW.
bactrianus – Summer visitor. Passage migrant.
365. *Passer hispaniolensis transcaspicus* – Spanish Sparrow
Summer visitor. Passage migrant.
366. *Passer montanus dilutus* – Tree Sparrow
Resident.
367. *Passer rutilans cinnamomeus* – Cinnamon Sparrow
Status uncertain (one record).
368. *Passer moabiticus yatii* – Yate's Sparrow (Dead Sea Sparrow)
Resident Seistan.
369. *Montifringilla nivalis alpicola* – Snow Finch
Resident.
370. *Montifringilla theresae* – Theresa's Snow Finch
Resident Central.

Sturnidae

371. *Sturnus vulgaris* – Common Starling
nobilior – Breeding (summer visitor ?) N, (S ?)
porphyronotus – Passage migrant. Winter visitor.
poltaratskyi – Passage migrant. Winter visitor.
372. *Sturnus roseus* – Rosy Pastor
Summer visitor. Passage migrant.
373. *Sturnus pagodarum* – Brahminy Myna (Black-headed Starling)
Summer visitor E.

374. *Sturnus tristis tristis* – Common Myna (Indian Myna)
Summer visitor, partly resident.
375. *Sturnus ginginianus* – Bank Myna
Straggler (one record).

Oriolidae

376. *Oriolus oriolus kundoo* – Golden Oriole
Summer visitor.

Dicruridae

377. *Dicrurus macrocercus albirictus* – King Crow
Summer visitor E.
378. *Dicrurus leucophaeus longicaudatus* – Ashy Drongo
Summer visitor E.

Corvidae

379. *Pyrhcorax pyrrhcorax docilis* – Red-billed Chough
Resident.
380. *Pyrhcorax graculus digitatus* – Alpine Chough
Resident E.
381. *Garrulus lanceolatus* – Lanceolated Jay (Black-throated Jay)
Resident Nuristan.
382. *Pica pica bactriana* – Magpie
Resident.
383. *Nucifraga caryocatactes multipunctata* – Nutcracker
Resident E.
384. *Corvus monedula soemeringii* – Jackdaw
Breeding (resident ?) N. Winter visitor.
385. *Corvus frugilegus frugilegus* – Rook
Winter visitor.
386. *Corvus macrorhynchos intermedius* – Jungle Crow (Large-billed Crow)
Resident E.
387. *Corvus corone* – Crow
orientalis (Carrion Crow) – Breeding. Winter visitor.
sharpii (Hooded Crow) – Breeding. Winter visitor.
388. *Corvus ruficollis* – Brown-necked Raven
Resident NW, (S ?).
389. *Corvus corax subcorax* – Raven
Resident.

VI. Composition and affinities of the bird fauna

The preceding list of Afghan birds may be subject to criticism and as our knowledge of the bird fauna of the country improves many alterations and additions may be required but even in its imperfect state it enables one to analyze with a fair degree of precision the zoogeographical nature of the fauna.

With the reservations already made an analysis of the list shows that among the 389 species recorded from Afghanistan 231 may be assumed to breed in the country.

Afghanistan as well as Baluchistan belongs to the Palearctic Region which is bounded in the east, and separated from the Oriental Region, by the Sulaiman Mountains, the barrier between the Iranian Plateau and the Indus Valley. It is, therefore, quite natural that the bulk of the Afghan bird fauna is of Palearctic origin. However, since the country forms a border province between the two regions and since also the Palearctic Region is inhabited by several faunal elements a more detailed analysis may be appropriate. In order to achieve this it is necessary to decompose the fauna into certain groups, a process which involves many a compromise; hence it is possible that others will be in favour of other possibilities for grouping the fauna than the one I have arrived at. On the other hand it is hoped that the framework provided here may facilitate a general survey of the fauna and its composition.

A: Among the breeding birds are 36 species which are cosmopolitan or at least widely distributed in the Palearctic Region as well as in India. They contribute nothing in the way of clarifying the zoogeographical position of Afghanistan.

B: Otherwise with a group of 132 species which are exclusively palearctic or widely distributed in this region but absent in India – except that a few steppe and desert birds extend their area into Sind and that some other species occur in Kashmir which in many respects show more Palearctic than Indian traits.

Ba: Among the 132 species, 57 per cent of the breeding birds, 59 are widely distributed over the Palearctic Region.

Bb: Other 68 species belong to the fauna inhabiting the arid southern and southeastern part of the region. This arid sector not only comprises the deserts from Sahara to Gobi but also the surrounding steppes and the xerophytic evergreen Mediterranean woodland (*maki*). All of Afghanistan, with the exception of small forest areas in the east, forms part of this arid sector.

*Bb*₁: The following list of 26 Afghan breeding birds comprises the typical representatives of the fauna associated with steppe and desert habitats:

<i>Buteo rufinus</i>	<i>Oenanthe xanthopyrmyna</i>
<i>Ammoperdix griseogularis</i>	<i>Oenanthe pleschanka</i>
<i>Cursorius cursor</i>	<i>Oenanthe picata</i>
<i>Pterocles alchata</i>	<i>Oenanthe finschii</i>
<i>Pterocles orientalis</i>	<i>Oenanthe deserti</i>
<i>Pterocles coronatus</i>	<i>Oenanthe isabellina</i>
<i>Caprimulgus aegyptius</i>	<i>Scotocerca inquieta</i>
<i>Ammomanes deserti</i>	<i>Rhodopechys sanguinea</i>
<i>Alaemon alaudipes</i>	<i>Rhodopechys mongolica</i>
<i>Calandrella rufescens</i>	<i>Rhodopechys githaginea</i>
<i>Calandrella cinerea</i>	<i>Rhodopechys obsoleta</i>
<i>Melanocorypha bimaculata</i>	<i>Carpodacus synoicus</i>
<i>Melanocorypha calandra</i>	<i>Corvus ruficollis</i>

Three of the species mentioned, *Cursorius cursor*, *Ammomanes deserti*, and *Calandrella cinerea*, also occur in steppe and desert areas in Africa outside the Sahara while all the other species are restricted to the Palearctic Region, although a few penetrate into Sind. Several among them are distributed throughout the arid belt from N Africa to NW China while others reach their northern limit in Afghanistan or southern Turkestan.

Some species have a very limited distribution, thus the distribution of *Ammoperdix griseogularis*, *Oenanthe xanthopyrmyna* and *Oenanthe picata* almost coincides with the Iranian Plateau.

*Bb*₂: A group may be formed by bringing together all the Mediterranean species associated with lakes and water courses, scrub and rocky country; in this context the term Mediterranean should not be taken too literally since some of the species extend even to N China through the south Palearctic arid belt while others reach their northern limit in Turkestan, such as *Cercotrichas galactotes*, the only species among those mentioned which also occur in the Ethiopian Region. With the inevitable compromises created by any grouping my list will be seen to comprise 20 species:

<i>Anas angustirostris</i>	<i>Phylloscopus nitidus</i>
<i>Netta rufina</i>	<i>Cettia cetti</i>
<i>Oxyura leucocephala</i>	<i>Hippolais languida</i>
<i>Alectoris graeca</i>	<i>Hippolais pallida</i>
<i>Larus genei</i>	<i>Sylvia hortensis</i>
<i>Hirundo rupestris</i>	<i>Sylvia mystacea</i>
<i>Irania gutturalis</i>	<i>Sitta tephronota</i>
<i>Monticola saxatilis</i>	<i>Petronia petronia</i>
<i>Monticola solitarius</i>	<i>Passer hispaniolensis</i>
<i>Cercotrichas galactotes</i>	<i>Passer moabiticus</i>

Among the species listed five have a very restricted distribution: *Irania gutturalis*, *Hippolais languida*, and *Sylvia mystacea* occur from Palestine to Turkestan, *Phylloscopus nitidus* from the Caucasus to Afghanistan and the southernmost provinces of Turkestan and, finally, *Passer moabiticus* which shows a patchy distribution centering on Palestine, Iraq, and Seistan.

*Bb*₃: From among the species associated with the south palearctic arid zone a third, small, group may be formed by bringing together five species largely confined to Turkestan:

<i>Columba eversmanni</i>	<i>Sylvia althaea</i>
<i>Dendrocopos leucopterus</i>	<i>Emberiza bruniceps</i>
<i>Phylloscopus neglectus</i>	

The two species mentioned first extend their area south to N. Afghanistan, and the three last mentioned to Baluchistan.

Bc: A number of species occur in the high mountains of Afghanistan and some of them may have the breeding area in common with those steppe species which penetrate highest up the mountains, but on the other hand they differ from the latter category of species by being restricted to fairly high altitudes; thus in Nuristan, where a forest zone occurs, most of them live above the forest zone, only touching its upper fringe. *Calandrella acutirostris* is an exception in so far that I found it in the wide valleys down to 2000 m. in the eastern as well as the western provinces although ordinarily the species is restricted to fairly high altitudes during the breeding period.

Owing to their habitat in Afghanistan these species must be characterized as alpine although in other parts of their area of distribution some of them occur at much lower altitude, thus *Pyrrhonorax pyrrhonorax* occurs even along rocky shores in West Europe. To this group I refer 22 species, as follows:

<i>Gypaëtus barbatus</i>	<i>Serinus pusillus</i>
<i>Tetraogallus himalayensis</i>	<i>Carduelis flavirostris</i>
<i>Columba leuconota</i>	<i>Leucosticte nemoricola</i>
<i>Columba rupestris</i>	<i>Leucosticte brandti</i>
<i>Calandrella acutirostris</i>	<i>Carpodacus rhodochlamys</i>
<i>Prunella collaris</i>	<i>Carpodacus rubicilla</i>
<i>Prunella himalayana</i>	<i>Mycerobas carnipes</i>
<i>Prunella strophiiata</i>	<i>Montifringilla nivalis</i>
<i>Prunella fulvescens</i>	<i>Montifringilla theresae</i>
<i>Phylloscopus griseolus</i>	<i>Pyrrhonorax pyrrhonorax</i>
<i>Tichodroma muraria</i>	<i>Pyrrhonorax graculus</i>

All the species mentioned are characteristic inhabitants of the high plateaus in Central Asia and of their surrounding mountains, Tibet in

particular. Among them *Montifringilla theresae* is endemic in Afghanistan. No less than 10 species have their western limit in Afghanistan while others extend farther west, along the mountain ranges; *Mycerobas carnipes* to N Iran; *Carpodacus rubicilla* to the Caucasus; *Tetraogallus himalayensis* and *Serinus pusillus* to Asia Minor; the same applies to *Carduelis flavirostris* if one disregards its isolated occurrence in NW Europe which may have been continuous with the Asian area of distribution through the South and Central European mountain ranges (STRESEMANN 1920). The following species extend their area into Europe: *Prunella collaris*, *Tichodroma muraria*, *Montifringilla nivalis*, *Pyrrhonorax pyrrhonorax* and *Pyrrhonorax graculus*; finally the area of *Gypaëtus barbatus* extends even to the South African mountains, a fact which places the species somewhat differently from the others and probably with a history of its own.

It may cause wonder that *Eremophila alpestris* has not been included in the above list where one might expect to find it but owing to its wide holarctic distribution it has already been included in a previous group (Ba).

C: The Himalayan species contribute a characteristic element of the Afghan bird fauna; by and large they have only penetrated into the eastern, wooded, provinces which form a direct continuation of the forest zone covering the south facing slope of the Himalayas which again, in the east, link up with the forests of SW China but are separated from India by the vast plains surrounding the rivers Indus and Ganges. According to MEINERTZHAGEN (1928) who analyzed the zoogeographical position of this forest area 13 endemic genera of birds occur here whilst 64 genera are shared with SW China but absent in India and in the Palearctic Region outside China; only 20 non-Palearctic genera occur also in SW China as well as in India. This shows partly that the fauna must have enjoyed a long and independent development and partly that it is much closer related to the South Chinese Province of the Oriental Region than to India. Several among the species listed below exemplify very clearly the connection with SW China from where their distribution extends as a narrow belt west along the southern slope of the Himalayas to Afghanistan.

Ca: The following species, 27 in all, are forest birds belonging to the Himalayan fauna which breed in Afghanistan while at the same time they are absent in Peninsular India:

Lophophorus impejanus
Pucrasia macrolopha
Psittacula himalayana
Dendrocopos himalayensis

Dendrocopos auriceps
Pericrocotus brevirostris
Luscinia brunnea
Monticola cinclorhynchus

<i>Garrulax variegatus</i>	<i>Picus squamatus</i>
<i>Phylloscopus tytleri</i>	<i>Luscinia pectoralis</i>
<i>Phylloscopus subviridis</i>	<i>Phoenicurus coeruleocephalus</i>
<i>Acrocephalus concinens</i>	<i>Garrulax lineatus</i>
<i>Ficedula superciliaris</i>	<i>Phylloscopus occipitalis</i>
<i>Muscicapa sibirica</i>	<i>Muscicapa ruficauda</i>
<i>Parus melanolophus</i>	<i>Parus rubidiventris</i>
<i>Aegithalos leucogenys</i>	<i>Certhia himalayana</i>
<i>Sitta leucopsis</i>	<i>Emberiza stewarti</i>
<i>Garrulus lanceolatus</i>	

The first 18 species do not penetrate farther west than to Afghanistan while the last 9 species also occur in Turkestan.

Phylloscopus subviridis is endemic in the small area from E Afghanistan to Gilgit and Hazara.

Cb: The following 6 species are associated with water courses, and just like the preceding group they belong to the Himalayan fauna and do not occur in Peninsular India:

<i>Cinclus pallasii</i>	<i>Enicurus scouleri</i>
<i>Chaimarrornis leucocephalus</i>	<i>Rhyacornis fuliginosus</i>
<i>Myiophoneus caeruleus</i>	<i>Enicurus maculatus</i>

The first four extend to Turkestan but the two last not beyond Nuristan.

D: *Phasianus colchicus* seems to be a special case but it is natural to mention it in connection with the Himalayan birds; like so many of these it has apparently spread from the Chinese Subregion. The Chinese and Afghan areas of distribution are, however, not connected through the Himalayas but through a chain of subspecies distributed from China north of Tibet and westwards through Turkestan to the south coast of the Black Sea, and perhaps even to Bulgaria.

E: Finally a group of 20 species occur in Peninsular India (and a few of them also in the Himalayas) from where their area of distribution extends a little into the Palearctic Region. Furthermore, some of the species also occur in the Ethiopian Region but the two centres are not continuous through South Palearctic. This group comprises:

<i>Caprimulgus mahrattensis</i>	<i>Riparia paludicola</i>
<i>Hirundo fluvicola</i>	<i>Hirundo smithii</i>
<i>Pycnonotus leucogenys</i>	<i>Pycnonotus leucotis</i>
<i>Sturnus pagodarum</i>	<i>Lanius vittatus</i>
<i>Dicrurus macrocercus</i>	<i>Lanius schach</i>
<i>Dicrurus leucophaeus</i>	<i>Saxicola caprata</i>
<i>Corvus macrorhynchos</i>	<i>Turdoides caudatus</i>
<i>Francolinus francolinus</i>	<i>Terpsiphone paradisi</i>
<i>Lobivanellus indicus</i>	<i>Petronia xanthocollis</i>
<i>Alauda gulgula</i>	<i>Sturnus tristis</i>

The first seven species do not extend NW beyond Afghanistan, the others extend to Turkestan or Iraq and *Francolinus francolinus* even to Cyprus.

E: The last group to be made comprises a number of species occurring in India and Ethiopia, the distribution in the two regions being continuous through South Palearctis. Among the Afghan birds 9 species belong in this category:

<i>Neophron percnopterus</i>	<i>Merops superciliosus</i>
<i>Porphyrio porphyrio</i>	<i>Anthus similis</i>
<i>Streptopelia senegalensis</i>	<i>Acrocephalus stentoreus</i>
<i>Apus affinis</i>	<i>Prinia gracilis</i>
<i>Ceryle rudis</i>	

As a summary of the present investigation it must be concluded that Afghanistan is part of the Palearctic Region since among 231 breeding species 173 (72 per cent) are exclusively Palearctic or at least species which breed extensively in this region. Among these species only 36 (15 per cent) also breed in Peninsular India. Another group of 34 species (15 per cent) belong in the south Chinese faunal element or are endemic in the Himalayas. A group of 20 species (9 per cent) possesses a breeding area comprising Peninsular India and extending westwards to comprise Afghanistan. A final group of 9 species comprises Indian-Ethiopian species occurring throughout the southern Palearctic Region.

List of Literature

- AITCHISON, Y. E. T. 1889. The Zoology of the Afghan Delimitation Commission.—*Trans. Linn. Soc. London* **5**: 53–142.
- AKHTAR, S. A. 1946. Babar the Great on flamingoes.—*Jour. Bombay Nat. Hist. Soc.* **46**: 545–547.
- AKHTAR, S. A. 1947. Ab-istadeh, a breeding place of the Flamingo (*Phoenicopterus ruber roseus* (Pallas) in Afghanistan.—*Jour. Bombay Nat. Hist. Soc.* **47**: 308–314.
- AKHTAR, S. A. 1955. Bird migration and fowling in Afghanistan.—*Jour. Bombay Nat. Hist. Soc.* **53**: 49–53.
- ASLANOW, M. G. 1953. Über die Verbreitung einiger indischen Vögel in Afghanistan. — *Arb. d. Instit. f. Zool. u. Parasit. II, Zool. Nachr. d. Akad. d. Wiss. d. Usbek. SSR.*: 84–89. (Russ. — Not consulted)
- BAKER, E. C. STUART. 1922–30. The fauna of British India.—*Birds* **1–8**. London.
- BAKER, E. C. STUART. 1932–35. The nidification of birds of the Indian Empire. **1–4**. London.
- BATES, R. S. P., and E. H. N. LOWTHER. 1952. Breeding birds of Kashmir.—Oxford.

- BISWAS, BISWAMOY. 1950. On the shrike *Lanius tephronotus* (Vigors), with remarks on the *erythronotus* and *tricolor* groups of *Lanius schach* Linné, and their hybrids.—*Jour. Bombay Nat. Hist. Soc.* **49**: 444–455.
- BLYTH, ED. 1847. Notices and descriptions of various new or little known species of birds.—*Jour. Asiatic Soc. Bengal.* **16**, part I: 428–476.
- CHRISTISON, A. F. P. 1940. Handbook of the birds of Northern Baluchistan. Quetta.
- CHRISTISON, A. F. P. 1941. Notes on the birds of Chagai.—*Ibis* 1941: 531–556.
- CUMMING, J. W. NICOL. 1905. Birds of Seistan, being a list of the birds shot or seen in Seistan by members of the Seistan Arbitration Mission, 1903–05.—*Jour. Bombay Nat. Hist. Soc.* **16**: 686–699.
- DELACOUR, JEAN, and DEAN AMADON. 1949. The relationships of *Hypocolius*.—*Ibis* **91**: 427–429.
- DELACOUR, JEAN, and CHARLES VAURIE. 1950. Les Mésanges Charbonnières (Revision de l'espèce *Parus major*).—*L'Oiseau* **20**: 91–121
- DEMENTIEV, GEORGES P. 1935. *Systema avium rossicarum I.*—Paris.
- DEMENTIEV, GEORGES P. 1957. Die Ausbreitung einiger Vogelarten in Mittelasien.—*Der Falke, Sonderheft* **3**: 13–16.
- DEMENTIEV, GEORGES P., and N. A. GLADKOV. 1951–56. Birds of the Soviet Union (Russian).
- DONALD, C. H. 1952. The flight of eagles.—*Jour. Bombay Nat. Hist. Soc.* **50**: 839–844.
- FINN, F. 1896. List of the birds collected by the Afghan Baluch Boundary Commission of 1896.—*Jour. Asiatic Soc. Bengal.* **65**: 566–567.
- FULTON, H. T. 1904. Notes on the birds of Chitral.—*Jour. Bombay Nat. Hist. Soc.* **16**: 44–64.
- GRIFFITH, WILLIAM. 1847. Journals and travels in Assam, Burma, Bootan, Afghanistan and the neighbouring countries.—Calcutta.
- GROTE, H. 1931. Zur Lebensweise und Verbreitung von *Haematopus ostralegus longipes* Buturlin.—*Jour. Ornith.* **79**: 346–349.
- GROTE, H. 1937. Die Sommer- und Winter-Verbreitung von *Oenanthe pleschanka* (Lepech.) und *Oenanthe isabellina* (Cretzschm.).—*Orn. Monatsber.* **45**: 114–134.
- GROTE, H. 1942. Ist *Oenanthe opistholeuca* (Strickland) eine Mutation?—*Orn. Monatsber.* **50**: 133–134.
- HARTERT, ERNST. 1910–1922. Die Vögel der paläarktischen Fauna. 1–3.—Berlin.
- HARTERT, ERNST, und FRIEDRICH STEINBACHER. 1932–38. Die Vögel der paläarktischen Fauna. Ergänzungsband.—Berlin.
- HORSFIELD, THOMAS, and FREDERIC MOORE. 1854–58. A catalogue of the birds in the Museum of the Hon. East Indian Company. 1–2.—London.
- HUTTON, THOS. 1847. Notes on the ornithology of Candahar and its neighbourhood. (With some additional information on the birds of Afghanistan.—By E. BLYTH).—*Jour. Asiatic Soc. Bengal* **16**: 775–794.
- IVANOV, A. J. 1940. Birds of Tadzhikistan.—Moskwa–Leningrad. (Russ.).
- JOHANSEN, HANS. 1946. De Gule Vipstjerters (*Motacilla flava* L.) Systematik og Udbredelse. *English summary*: Notes on systematics and distribution of the Yellow Wagtails (*Motacilla flava* L.).—*Dansk Orn. For. Tidsskr.* **40**: 121–142.
- JOHANSEN, HANS. 1947. Gransangerens (*Phylloscopus collybita* (Vieill.)) geografiske variation. *English summary*: Notes on the geographical variation of the Chiffchaff (*Phylloscopus collybita* (Vieill.)).—*Dansk Orn. For. Tidsskr.* **41**: 198–215.

- JOHANSEN, HANS. 1943-58. Die Vogelfauna Westsibiriens. — Jour. Ornith. **91**: 1-110, **92**: 1-105, 145-204, **95**: 64-110, 319-342, **96**: 58-91, 382-410, **97**: 206-219, **98**: 155-171, 262-278, 397-415, **99**: 68-80.
- KERSTAN, GERHARD. 1937. Die Waldverteilung und Verbreitung der Baumarten in Ost-Afghanistan und in Chitral.—In A. SCHEIBE (editor): Deutsche im Hindu-kusch: 141-167. Berlin.
- KOELZ, WALTER. 1939. New birds from Asia, chiefly from India.—Proc. Biol. Soc. Washington **52**: 61-82.
- KOELZ, WALTER. 1948. A new stone sparrow from Persia.—Auk **65**: 444-445.
- KOELZ, WALTER. 1949 a. A new goldfinch from Persia.—Auk **66**: 208-209.
- KOELZ, WALTER. 1949 b. A new rose-finch from Afghanistan.—Auk **66**: 209.
- KOELZ, WALTER. 1950. New subspecies of birds from southwestern Asia.—Am. Mus. Nov. **1452**.
- KOELZ, WALTER. 1951. Four new subspecies of birds from southwestern Asia.—Am. Mus. Nov. **1510**.
- KOELZ, WALTER. 1954. Ornithological studies.—Contributions from the Institute for Regional Exploration **1**: 1-33.
- MARIEN, DANIEL. 1950 a. Notes on some Asiatic *Meropidae* (Birds).—Jour. Bombay Nat. Hist. Soc. **49**: 151-164.
- MARIEN, DANIEL. 1950 b. Notes on some Asiatic *Sturnidae* (Birds).—Jour. Bombay Nat. Hist. Soc. **49**: 471-487.
- MARIEN, DANIEL. 1951 a. Notes on the bird family Prunellidae in southern Eurasia.—Am. Mus. Nov. **1482**.
- MARIEN, DANIEL. 1951 b. Notes on some pheasants from southwestern Asia, with remarks on molt.—Am. Mus. Nov. **1518**.
- MAYR, ERNST. 1949. Enigmatic sparrows.—Ibis **91**: 304-306.
- MAYR, ERNST, and ERWIN STRESEMANN. 1950. Polymorphism in the chat genus *Oenanthe* (Aves).—Evolution **4**: 291-300.
- MEINERTZHAGEN, R. 1928. Some biological problems connected with the Himalaya.—Ibis 1928: 480-533.
- MEINERTZHAGEN, R. 1938. On the birds of Northern Afghanistan.—Ibis 1938: 480-520, 671-717.
- MEINERTZHAGEN, R. 1939. Notes on Afghan Birds.—Ibis 1939: 347.
- MEINERTZHAGEN, R. 1951. Some relationships between African, Oriental, and Palaearctic genera and species, with a review of the genus *Monticola*.—Ibis **93**: 443-459.
- MEINERTZHAGEN, R. 1954. Birds of Arabia.—London.
- PALUDAN, KNUD. 1938. Zur Ornithologie des Zagrossgebietes, W. Iran.—Jour. Ornith. **86**: 562-638.
- PALUDAN, KNUD. 1940. Contributions to the ornithology of Iran.—Danish Scientific Investigations in Iran **2**: 11-54.
- PETERS, JAMES LEE. 1931-48. Check-list of birds of the world 1-6.—Cambridge (U.S.A.).
- RIPLEY, S. DILON. 1952. The thrushes.—Postilla **13**.
- ST. JOHN, O. B. 1889. On the birds of Southern Afghanistan and Kelat.—Ibis 1889: 145-180.
- SARUDNY, N. 1900. Une excursion dans le nord-est de la Perse et les oiseaux de cette region.—Mem. l'Acad. Imp. Sc. St. Petersburg **8**. Ser. Phys. Math. **10** (1): 1-262. (Russ.).

- SARUDNY, N. 1902. Itinéraire de l'expédition de la Société Impériale Russe de Géographie dans la Perse orientale en 1900–1901.—Ann. Mus. Zool. l'Acad. Imp. Scien. St. Petersbourg 7: i–ix. (Russ.).
- SARUDNY, N. 1903. Les oiseaux de la Perse Orientale. Matériaux ornithologiques du voyage fait en 1898. — Mem. Soc. Imp. Russe Geogr. Sec. Geogr. Générale 36 (2): 1–467. (Russ.).
- SARUDNY, N. 1911. Verzeichnis der Vögel Persiens.—Jour. Ornith. 59: 185–241.
- SARUDNY, N., und M. HÄRMS. 1912–26. Bemerkungen über einige Vögel Persiens. Jour. Ornith.
1912. I. (*Passer yatii* Sharpe, *Cinnyris brevirostris* (Blanf.), *Pycnonotus leucotis* (Gould)).—60: 592–619.
1913. II. Die Sperlinge Persiens.—61: 630–661.
1923. III. Gattung *Sitta* L.—71: 398–421.
1926. IV. Gattung *Oenanthe* Vieill.—74: 1–52.
- SCHEIBE, A. (editor). 1937. Deutsche im Hindukusch. — Berlin.
- SCULLY, JOHN. 1881. A contribution to the Ornithology of Gilgit.—Ibis 1881: 415–453, 567–594.
- SCULLY, JOHN. 1887. On the mammals and birds collected by Captain C. E. YATE, C. S. J. of the Afghan Boundary Commission.—Jour. Asiatic Soc. Bengal 56 (2): 68–89.
- SHARPE, R. BOWDLER. 1889. Birds (p. 66–93) in J. E. T. AITCHISON: The zoology of the Afghan Delimitation Commission.—Trans. Linn. Soc. London 5: 53–142.
- SHARPE, R. BOWDLER. 1891. Scientific results of the Second Yarkand Mission, based upon the collections of the late FERDINAND STOLICZKA.—Aves. — London.
- STAMP, R. DUDLEY. 1946. Asia. A regional and economic geographic. 6. ed.—London.
- STEGMANN, B. 1938. Grundzüge der ornithogeographischen Gliederung des paläarktischen Gebietes. — Faune de l'URSS. Nouvelle Serie no. 19. (Russ. with German summary).
- STEINBACHER, FRIEDRICH, 1929. Die Vögel der paläarktischen Wüsten. — Jour. Ornith. Ergänzungsband 2: 122–135.
- STOLICZKA, FERDINAND. 1874. Letter to the editor of Stray Feathers, dated Panja Wakhan, 25th March 1874.—Stray Feathers 2: 463.
- STRESEMANN, E. 1920. Die Herkunft der Hochgebirgs-Vögel Europas. — Club van Nederl. Vogelkundigen 10: 71–93.
- STRESEMANN, E. 1925. *Oenanthe opistholeuca* (Strickland) — eine melanistische Mutante von *Oenanthe picata* (Blyth)! — Orn. Monatsber. 33: 178–181.
- SWANN, H. KIRKE. 1924–45. A monograph of the birds of prey. 1–2.—London.
- SWINHOE, C. 1882. On the birds of Southern Afghanistan.—Ibis 1882: 95–126.
- TATE, G. P. 1910–12. Seistan 1–4.—Calcutta.
- TICEHURST, CLAUD B. 1922. Notes on some Indian Wheatears.—Ibis 1922: 151–158.
- TICEHURST, CLAUD B. 1926–27. The birds of British Baluchistan.—Jour. Bombay Nat. Hist. Soc. 31: 687–713, 862–881; 32: 64–97.
- TICEHURST, CLAUD B. 1938. A systematic review of the genus *Phylloscopus*.—London.
- VAURIE, CHARLES. 1949 a. Notes on some *Ploceidae* from Western Asia.—Am. Mus. Nov. 1406.
- VAURIE, CHARLES. 1949 b. Notes on some Asiatic finches.—Am. Mus. Nov. 1424.
- VAURIE, CHARLES. 1949 c. Notes on the bird genus *Oenanthe* in Persia, Afghanistan, and India.—Am. Mus. Nov. 1425.

- VAURIE, CHARLES. 1949 d. A revision of the bird family *Dicruridae*.—Bull. Am. Mus. Nat. Hist. **93**: 199–342.
- VAURIE, CHARLES. 1950 a. Notes on the Asiatic titmice.—Am. Mus. Nov. **1459**.
- VAURIE, CHARLES. 1950 b. Notes on some Asiatic nuthatches and creepers.—Am. Mus. Nov. **1472**.
- VAURIE, CHARLES. 1951 a. Notes on the wrens and dippers of Western Asia and India.—Am. Mus. Nov. **1485**.
- VAURIE, CHARLES. 1951 b. A study of Asiatic larks.—Bull. Am. Mus. Nat. Hist. **97**: 431–526.
- VAURIE, CHARLES. 1951 c. Notes on some Asiatic swallows.—Am. Mus. Nov. **1529**.
- VAURIE, CHARLES. 1951 d. Adaptive differences between two sympatric species of nuthatches (*Sitta*).—Proc. X. Int. Orn. Congr.: 163–166.
- VAURIE, CHARLES. 1952. Additional systematic notes on the titmice of the *Remiz pendulinus* group (*Aves*).—Am. Mus. Nov. **1549**.
- VAURIE, CHARLES. 1953. A generic revision of flycatchers of the tribe *Muscicapini*.—Bull. Am. Mus. Nat. Hist. **100**: 453–538.
- VAURIE, CHARLES. 1953–58. Systematic notes on Palaearctic birds.—Am. Mus. Nov.
3. (1953). *Turdoides caudatus* and *Turdoides altirostris*.—**1642**.
 4. (1954). The choughs (*Pyrrhocorax*).—**1658**.
 5. (1954). *Corvidae*.—**1668**.
 6. (1954). *Timaliinae* and *Paradoxornithinae*.—**1669**.
 7. (1954). *Alaudidae* and *Motacillidae* (Genus *Anthus*).—**1672**.
 8. (1954). *Sylviinae*: the genus *Regulus*.—**1684**.
 9. (1954). *Sylviinae*: the genus *Phylloscopus*.—**1685**.
 10. (1954). *Sylviinae*: the genera *Cettia*, *Hippolais*, and *Locustella*.—**1691**.
 11. (1954). *Sylviinae*: the genus *Sylvia*.—**1692**.
 12. (1954). *Muscicapinae*, *Hirundinidae*, and *Sturnidae*.—**1694**.
 14. (1955). *Turdinae*: the genera *Erithacus*, *Luscinia*, *Tarsiger*, *Phoenicurus*, *Monticola*, *Erythropygia*, and *Oenanthe*.—**1731**.
 15. (1955). *Turdinae*: the genera *Turdus*, *Grandala*, and *Enicurus*.—**1733**.
 16. (1955). *Troglodytinae*, *Cinclididae*, and *Prunellidae*.—**1751**.
 17. (1955). *Laniidae*.—**1752**.
 18. (1955). Supplementary notes on *Corvidae*, *Timaliinae*, *Alaudidae*, *Sylviinae*, *Hirundinidae*, and *Turdinae*.—**1753**.
 19. (1956). *Fringillidae*: the genera *Fringilla*, *Serinus*, *Carduelis*, and *Acanthis*.—**1775**.
 20. (1956). *Fringillidae*: the genera *Leucosticte*, *Rhodopechys*, *Carpodacus*, *Pini-cola*, *Loxia*, *Uragus*, *Urocynchramus*, and *Propyrrhula*.—**1786**.
 21. (1956). *Fringillidae*: the genera *Pyrrhula*, *Eophone*, *Coccothraustes*, and *Mycerobas*.—**1788**.
 22. (1956). *Fringillidae*: *Emberiza schoeniclus*.—**1795**.
 23. (1956). *Fringillidae*: the genera *Emberiza*, *Calcarius*, and *Plectrophenax*.—**1805**.
 24. (1956). *Ploceidae*: the genera *Passer*, *Petronia*, and *Montifringilla*.—**1814**.
 25. (1957). *Motacillidae*: the genus *Motacilla*.—**1832**.
 26. (1957). *Paridae*: the *Parus caeruleus* complex.—**1833**.
 27. (1957). *Paridae*: the Genera *Parus* and *Sylviparus*. With supplementary notes by David Snow.—**1852**.

VAURIE, CHARLES. 1953-58. (cont.)

28. (1957). The families *Remizidae* and *Aegithalidae*.—1853.

29. (1957). The subfamilies *Tichodromadinae* and *Sittinae*.—1854.

30. (1957). The *Certhiidae*.—1855.

32. (1958). *Oriolidae*, *Dicruridae*, *Bombycillidae*, *Pycnonotidae*, *Nectariniidae*, and *Zosteropidae*.—1869.

VAURIE, CHARLES. 1954. Pseudo-Subspecies.—Acta XI. Congr. Int. Orn.: 369-380.

VAURIE, CHARLES. 1955. Remarks on the nomenclature of the Himalayan races of *Regulus regulus*.—Bull. Brit. Orn. Club 75: 99-101.

VOOUS, KAREL HENDRIK. 1947. The history of the distribution of the genus *Dendrocopos*.—Limosa 20: 1-142.

VOOUS, KAREL HENDRIK. 1949. Distributional history of Eurasian bullfinches.—Condor 51: 52-81.

WARDLAW-RAMSAY, R. G. 1879-80. Ornithological notes from Afghanistan.—No. I. Ibis 1879, 444-449. No. II. Ibis 1880: 45-71.

WHISTLER, HUGH. 1944-45. Materials for the ornithology of Afghanistan.—Jour. Bombay Nat. Hist. Soc. 44: 505-519; 45: 61-72; 106-122; 280-302; 462-485.

WHISTLER, HUGH. 1949. Popular handbook of Indian birds. 4th edit.—London.

WILLIAMSON, KENNETH. 1955. Migrational drift and the Yellow Wagtail complex.—Brit. Birds 48: 382-403.

WILLIAMSON, KENNETH, and I. J. FERGUSON-LEES. 1955. Plumage and structural characters in the Yellow-headed Wagtail.—Brit. Birds 48: 358-362.

WITHERBY, H. F. (editor). 1949. The handbook of British birds. 1-4.—London.

WOLFSON, ALBERT. 1954. Notes on the cloacal protuberance, seminal vesicles, and a possible copulatory organ in male passerine birds.—Bull. Chicago Acad. Sci. 10 (1): 1-23.

WYNNE, OWEN E. 1956. Key-list of the Palaearctic and Oriental passerine birds.—Arbroath.

YATE, C. E. 1888. Northern Afghanistan.—London.

YATE, C. E. 1900. Khurasan and Sistan.—London.

ZARUDNY, see Sarudny.



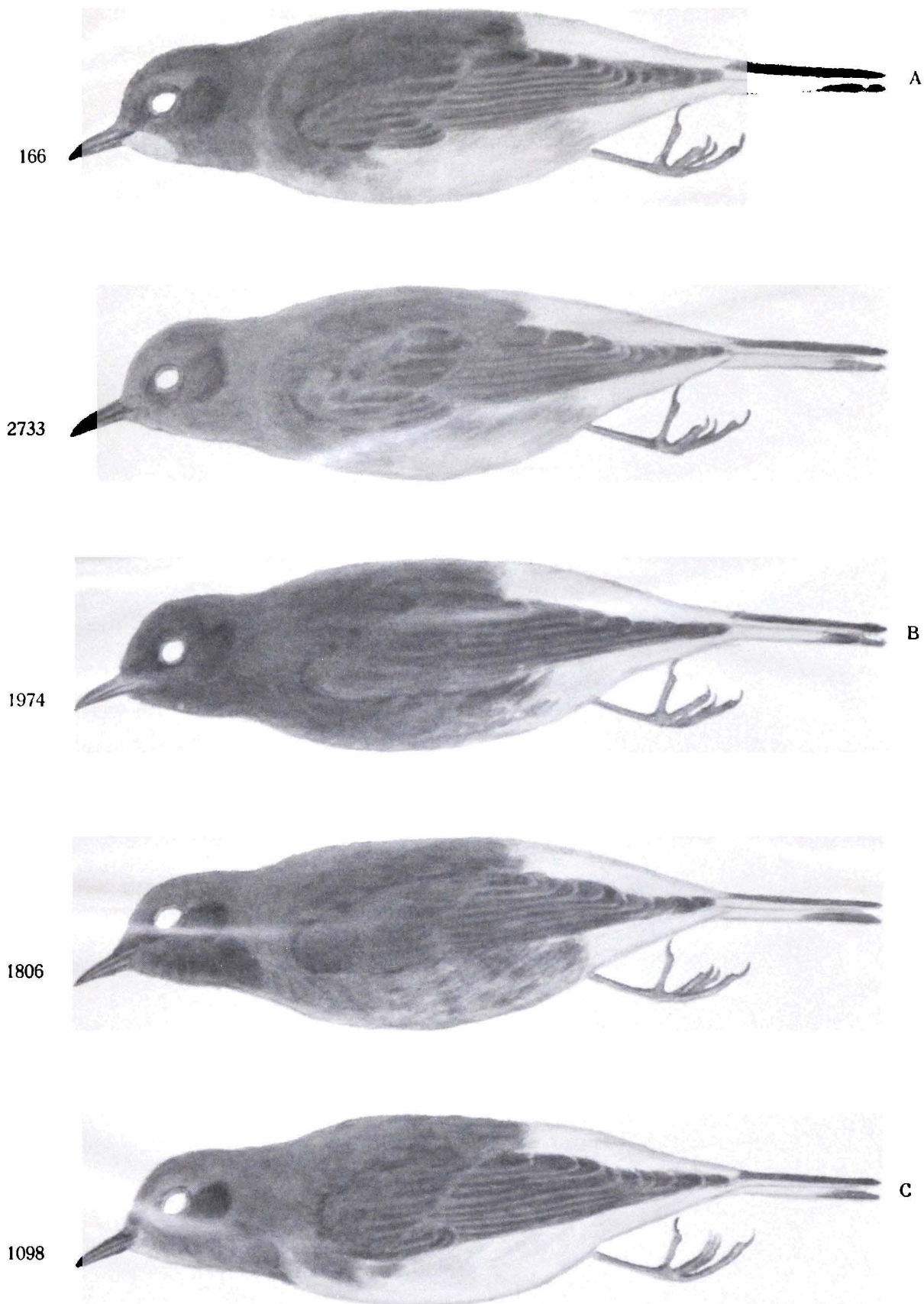


Plate 1. *Oenanthe picata*. The three colour types of females and two intermediates. (No. 1098: Faizabad, Seistan, 20. iii. 49. - No. 1806: Sar-i-Chashma, Maidan, 9. vi. 49. - No. 1974: same locality, 19.6.49. - No. 2733: Bamian, 21. ix. 49. - No. 166: Gusalek, Nuristan, 19. iii. 48.).



Plate 2. Map of Afghanistan with route shown. Ground exceeding 3000 m. above sea levels shown in black, 3000-1800 m. altitude grey; areas not reaching 1800 m. white.