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#### ON THE

# BIRDS

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# KOHAT AND KURRAM,

NORTHERN INDIA.

BY

LIEUT. C. H. T. WHITEHEAD, INDIAN ARMY.

WITH AN INTRODUCTION BY

MAJOR H. A. F. MAGRATH,
INDIAN ARMY.

On the Birds of Kohat and Kurram, Northern India. By Lieut. C. H. T. WHITEHEAD, Indian Army. With an Introduction by Major H. A. F. MAGRATH, Indian Army.

(Plate III. and Text-figures 4 & 5.)

1.—Introduction.

By Major H. A. F. MAGRATH.

CONTRASTED with a district of the Punjab, which I had just left, the variety of the surrounding bird-life was one of the first impressions received on my arrival at Kohat in [2]

December 1904, and it struck me that, as I was likely to be quartered there for some time, a List of the birds of the district might be usefully attempted. I had already made notes on a few of the commoner species, when I had the good fortune to discover in Mr. C. H. T. Whitehead, 56th Rifles, who had just rejoined his regiment at Kohat, a keen naturalist, anxious to start work at once on the ornithology of the district. We at once agreed to work together, and in spite of military duties which permitted of little leisure for the pursuit of hobbies, we had, by the end of February 1906, acquired at first hand a fair working knowledge of the local avifauna. In March 1906 my regiment moved to the Samana, a ridge 6500 feet above sea-level and 30 miles due west of Kohat Station. This ridge forms the northern boundary of the Miranzai Valley, and overlooks on the north the Khanki Valley and Tirah, the land of the Afridis. Here a few interesting additions were made to our list-such as Pica rustica, Accentor rufilatus, Accentor himalayanus, Fringillauda sordida, and Suya crinigera. Meanwhile, Whitehead was doing good work below, and during the manœuvres secured, among other birds, an example of Fringilla cælebs, a species new to India. In the end of April 1906 I proceeded home on furlough and, as the sequel will shew, the production of the List was then left entirely in Whitehead's hands. An interesting discovery made by him shortly after my departure was a nesting colony of Aëdon familiaris in the vicinity of the station. Taking two months' leave in June 1906, he paid a visit to the Kurram Valley lying to the N.W. of Kohat, and followed to their breeding-grounds at the head of the valley many of the birds that winter in the plains around Kohat. During these two months he explored the Safed Koh Range very thoroughly, considering the short time at his disposal, ascending the two peaks of Sikaram (15,600 ft.) and Bodin (14,000 ft.), and by dint of real hard work, aided by much enthusiasm, added a great deal to our knowledge of the distribution and nesting-habits of many Oriental and Palæarctic species, discovering for the first time the nests and getting the eggs of Saxicola capistrata

and Phylloscopus subviridis, besides obtaining some interesting mammals. His most important discovery, however, was a new race of Anorthura procured at 10,000 feet on the Safed Koh. To this bird he has very generously done me the honour of giving my name, an honour quite undeserved, which has made me insist on the trivial name of "Whitehead's Wren" for that species.

With the kind assistance of Dr. Bowdler Sharpe and Mr. Charles Chubb I was enabled to work out, at the British Museum, the skins procured by Whitehead on this trip, in addition to those previously collected in Kohat.

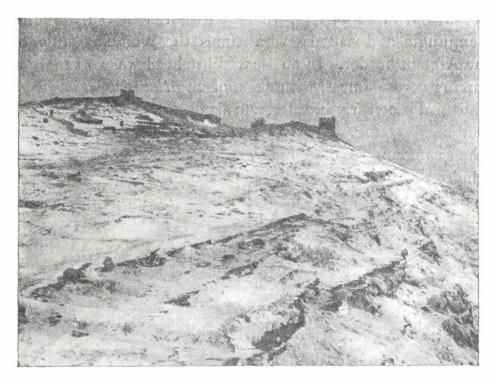
During my absence on leave my regiment had marched in course of relief to Bannu, the district which borders the Kohat District to the south. My official connexion with Kohat was therefore, much to my regret (especially as I could no longer pursue my ornithological studies there), severed. Passing through Kohat Station on my return from leave, Whitehead met me with the interesting news that he had a few days previously shot a Waxwing (Ampelis garrulus), another new bird for India.

In April 1907, availing myself of three months' privilegeleave and Whitehead at the same time obtaining a year's furlough, we decided to take a trip together to the Kurram Valley before he went home, in order to add, if possible, to the knowledge gained in the previous year. We met at Thall on the 15th of April and there awaited the sanction of the Political Agent of the Kurram Valley to our proposed expedition in the territory under his administration. number of the smaller Passerine birds migrating up the valley at the time was very great, and we had plenty to interest us in this unusual leave-resort. The officer commanding the Post, Lieut. Wolley, with his wonted hospitality, invited us to consider ourselves honorary members of his little mess, which privilege we were only too glad to avail ourselves of. In due course the Political Officer's permit arrived, but it was so hampered by restrictions that we had to abandon our original intention of working slowly up the valley and proceed direct to Parachinar, the headquarters of the Agency,

which is situated about 13 miles from the head of the valley. Here the officers of the Kurram Militia very kindly allowed us to make use of their exceedingly comfortable mess, and most hospitably entertained us during our stay. After obtaining permission to move up to Peiwar, 10 miles further up the valley, we left Parachinar on the 21st of April. The Political Agent was so solicitous for our safety that he insisted on our taking an armed tribal escort of six men with us. We did not require their military assistance, but found them useful to look for nests, climb trees, and carry our guns and lunch-baskets. Making the little rest-house at Peiwar our headquarters, we daily explored the surrounding Ilex jungle and visited several times the pine-clad hills on the Afghan border. In an Ilex, Whitehead was fortunate in coming across a nest, with eggs, of Ægithaliscus leucogenus. This bird is an early breeder, and six other nests that we found contained young. We had not been at Peiwar many days when rumours reached us from Parachinar that the Turis (the tribe inhabiting the Valley), who had been listening to wondrous tales of the spread of plague in Peshawar, poured into their ears by Kabuli traders and others passing up the valley from India to Afghanistan, had become highly suspicious of our movements and credited us with all sorts of nefarious deeds. We were supposed to be agents of the Government sent up to poison their water-supply and to spread the plague. We were said to stalk abroad at night catching and inoculating rats, in order to disseminate the pestilence. Colour was lent to this ingenuous theory by the fact that we had trapped a few Mole-rats, Gerbilles, and Dormice. Curiously enough we could see no signs of hostility in the villagers themselves, in fact we found them invariably friendly, and our tribal escort seemed to know nothing of these rumours. We were now anxious to shift camp and to move up the slopes of Sikaram, as the snow, under the influence of the summer sun, was gradually receding. But, in face of the rumours related above, the Political Agent did not think it advisable for us to do so. and even considered that our presence at Peiwar might lead

to some act of violence towards us, and be the cause of administrative complications in the valley. We were, therefore, asked to return to Parachinar, where a meeting was called of the leading Maliks, on the result of which our fate with respect to being allowed to continue collecting would depend. Unfortunately and much to our chagrin the verdict of the "Jirga" was against us, and the Political Agent called on us and informed us that, owing to the popular excitement, it would be quite unsafe for us to go into camp

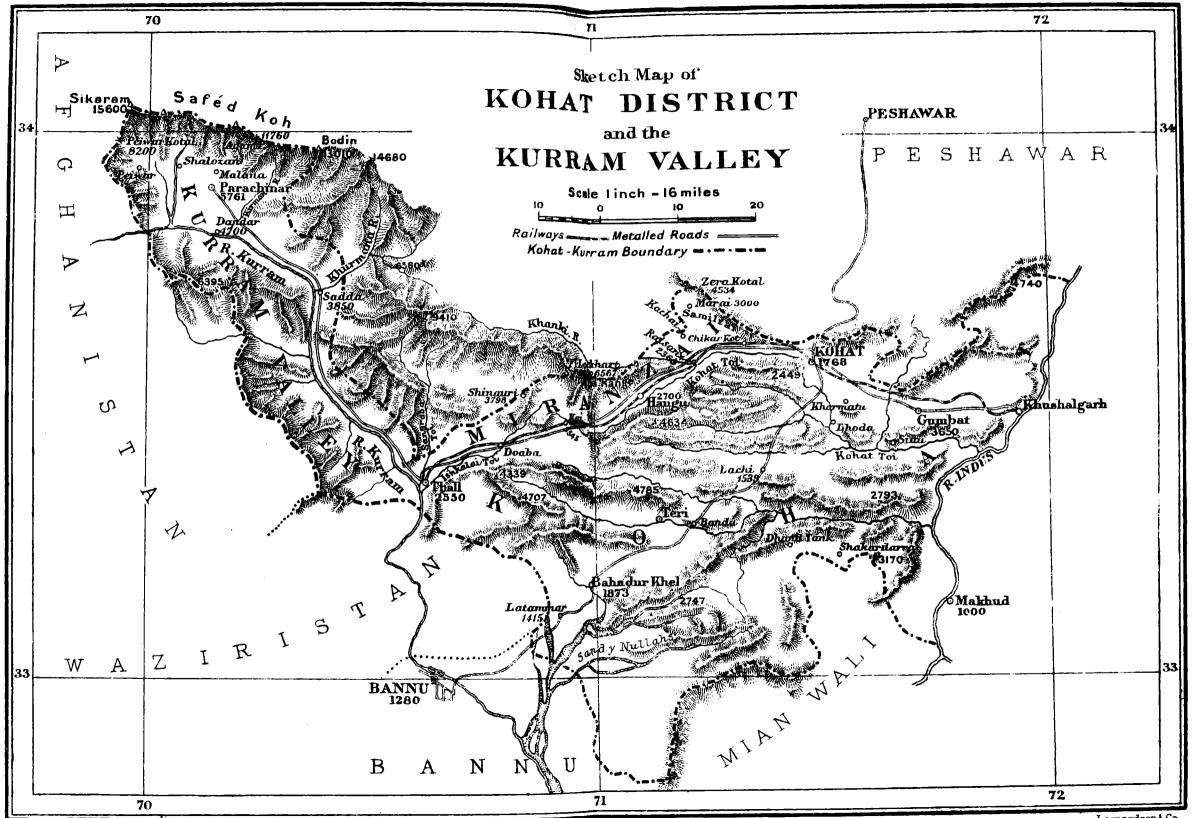
Text-fig. 4.



Fort Lockhart, in winter.

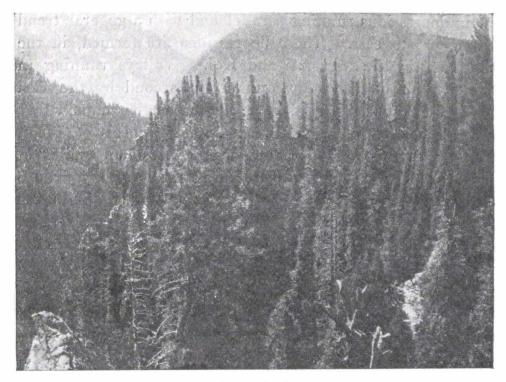
again and that we could only work in the immediate vicinity of Parachinar. Our expedition thus came to an untimely end, and, as there was nothing more to be done in the birdline at Parachinar, we returned to Thall, whence a few days later Whitehead took his departure for England, and I to places where ignorance and superstition would cease from troubling.

I may mention that soon after we arrived in Parachinar from Peiwar news was brought in by a native officer of the



local militia, who had been on leave to his village, that we had left Peiwar just in time. Had we remained another night, we were, like the Babes in the Wood, to have been foully murdered. All arrangements had been made, assassins hired, and our pleasant little camp was to have been converted into a shambles! This was a most amusing yarn which tickled us immensely! Gladly would we have accepted these small risks if only we had been allowed to continue our expedition.

Text-fig. 5.



Zeran Nullah, Safed Koh, from 8000 ft. alt.

A glance at the accompanying map (Plate III.) will give a good idea of the geography of this portion of the N.W. Frontier of India. Situated between the 32nd and 35th parallels of latitude and the 69th and 72nd meridians of longitude it is in shape somewhat like a pipe, the District of Kohat forming the bowl and the Kurram Valley the stem and mouthpiece. Its northern boundary, proceeding from east to west, consists of the bare and rocky hills lying between it and the Peshawar District, the Samana Range

(barren hills inhabited by independent Orakzai and Afridi tribes) and the Safed-Koh Range. This rugged barrier of hills is on the east as low as 3000 feet above sea-level, but gradually increases in height westward till it culminates in the imposing snow-clad ramparts of the Safed-Koh Range, the highest peak of which, Sikaram (15,600 feet), lies at its western extremity. To the west it is bounded by Afghanistan and Waziristan, to the south by the districts of Bannu and Mianwali, and to the east by the R. Indus.

The general aspect of Kohat is a confused mass of low bare rocky hills, nullahs, and ravines, intersected by two main depressions running parallel and with a general trend from west to east. These depressions are formed, in the first case, by the Miranzai and Kohat Valleys running in prolongation of each other, and in the second by the Teri Valley. Two alluvial plains are also noticeable, namely that around and east of Kohat Station, and the oasis of Lachi. The Kurram is a long valley, averaging some 2 miles in width at its lower end and broadening into a stony plain 8 or 10 miles wide at its upper extremity and rising in the 70 miles from Thall 4000 feet. Down its centre rushes, over a bed of stones and boulders, the river that gives its name to the valley, which rises in Afghanistan some 20 miles beyond the valley-head. Consisting, as the district does, for the most part of desert, the flora, compared with that of the Himalayas, is not luxurious. Coarse grass, Olives, thorn-scrub, and Dwarf Palms sparsely cover the hills, and in parts of the Miranzai Valley and around Thall the two latter form thick scrub-jungle. Ilex-Oaks, where their branches are not ruthlessly lopped and the trees are permitted to grow, attain a considerable size on the Samana, and here and there on this hill some fine Ash-trees flourish. Safed Koh Range, however, forests of Fir, Pine, and Cedar clothe the mountain-sides from about 8000 to 12,000 feet, and cover the top of the spur over which the Peiwar Pass Below, these forests are gradually replaced by Ilex trees, which again, as one descends to the low foot-hills, are replaced by dense Ilex-scrub.

Where water is easily brought on to the land, as is the case in the plains around Kohat and Lachi and in the multiple of Kurram, Hangu, and Teri Valleys, green oases of cultivation relieve the general barrenness. A feature of the cultivation relieve the general barrenness. A feature of the cultivation around Kohat and in the Miranzai Valley consists of the what week beautiful orchards of Mulberry, Peach, Plum, Fig, and Vine hand which abound, and are supplemented, in the stonier parts, state and by groves of wild Olive-trees. The crops consist mainly of wheat; but Indian corn, barley, millet, cotton, and sugarcane are also grown, and around Bangu, Thall, and in the Kurram Valley, rice. Immediately south of the station of Kohat the Government grass-farm, of about 300 acres, possesses many attractions for birds on migration, and, after irrigation, is not a bad place to observe Waders: even Duck and Snipe have been shot on it. The climate is very dry. As regards temperature: in the plains of Kohat the winter might be compared to that of the south of France, but the summer is decidedly hotter and probably most nearly approximates to that of Egypt. In the Kurram Valley temperatures are much lower, and the climate of Upper Kurram must be somewhat similar, both in summer and in winter, to that of Northern Germany.

Ornithologically speaking, this corner of the Palæarctic Region \* has hitherto been little worked. With the exception

\* Dresser in the preface to his 'Manual of Palæarctic Birds' does not clearly define the Palæarctic boundary in this locality, and by omitting all reference to the plains of India would seem to imply that Kohat belongs to the Indian Subregion. On the other hand, Blanford in his 4 Distribution of Vertebrate Animals in India' assigns the plains of the Punjab to the Palæarctic Region. Professor Newton, however, in his article on "Birds" in the 'Encyclopædia Britannica,' remarks that if Baluchistan is to be excluded from the Palearctic Region, "then the line of demarcation must run inland and so continue between that land and Afghanistan till ascending the right bank of the Indus it turns the shoulder of the Great Snowy range." The italics are mine, and I take this to mean that the line of demarcation strikes the Indus at a point in prolongation eastward of the boundary-line between Afghanistan and Baluchistan, i. e. somewhere in the vicinity of Dera Ghazi Khan. If this is the correct interpretation of Newton's views then the ornithology of N.W. India strongly supports them.

of the two papers by Colonel R. H. Rattray published in the 'Journal' of the Bombay Natural History Society, "Notes on Nests taken from March to June at Kohat and Mussoorie, North-Western Provinces" (vol. x. p. 628), and "Birds Collected and Observed at Thall" (vol. xii. p. 337), and a few observations by Major Wardlaw-Ramsay and others mentioned in the 'Fauna of British India,' I know of no contribution to its ornithology \*. Neither Hume nor Jerdon, Oates nor Blanford, nor others of India's many excellent ornithologists, appear to have visited it. And yet it is an important locality, lying as it does in the extreme north-west of the Peninsula on one of the great migrationhighways into India, and at a point on that highway where it converges to its narrowest limits. The pre-eminently Palæarctic character of the avifauna is most striking. Especially is this noticeable in the forms breeding in the Upper Kurram, very few of the many subtropical species inhabiting the Western Himalayas being found there. From the description of the country and from its geographical position the predominance of such groups as the Accipitrines, Motacillidæ, Fringillinæ, Emberizinæ, and of the desertforms will not be considered surprising. Although undoubtedly well represented on migration, the Ducks, Waders, and Shore-birds are difficult of observation in Kohat. With the exception of the grass-farm, the tank at Dhand-Idl-Khel, and some marshy tracts round Thall and Lachi, this District is singularly devoid of the moist places beloved of Wildfowl and Waders, no streams of any size flowing through Matters improve in this respect on arriving at the Kurram Valley. The river here being taken off for ricecultivation in places along-its banks, marshy spots have formed, and in the months of March and April, September and October, numbers of Wild-fowl and Waders, using this

<sup>\*</sup> There is only one allusion to Kohat itself in the 'Fauna of British India,' and that is in connection with the occurrence there of the Redwing (*Turdus iliacus*), recorded by Jerdon on hearsay from Blyth, on hearsay from Trotter. After more than two years' careful observation we failed to come across this bird, and I think we may safely say that it is not "a regular winter visitant," if it occurs at all.

river-route on migration, are induced to halt on their way. affording good sport to "Sahibs" and Turi villagers. The importance of this river as a migration-route is illustrated lower down, where it debouches into the sandy plains of Bannu, outside of the area which we are now considering. Here vast quantities of Wild-fowl, Waders, and Gulls, on migration to their far-off northern homes from the lower reaches of the Indus and the Manchar Lake in Sind, are to be observed, in the months of February and March, asleep or preening their feathers on the mudbanks in mid-river. The majority of these birds undoubtedly keep to the riverroute, there being no other important water-way lying near their line of migration, and must therefore, of necessity. pass up the Kurram Valley. It may be wondered at that the River Indus, bordering Kohat, has not been mentioned as suited to the observation of Water-fowl. But in this portion of its course that great river is confined between hills, and flows over a rocky bed, consequently here it affords no feeding-grounds or resting-places for such birds. Whitehead came down it in a boat at a time of year when he might have expected to find birds, but his journey proved disappointing. On the whole, then, Kohat and Kurram must be looked on as a profitable locality to the Indian ornithologist.

The straggling of Western Palæarctic forms, not as yet recorded within Indian limits, into this area is probably of commoner occurrence than might be supposed, and, were it possible for a winter to be spent in collecting in the Upper Kurram, yet new species to the Indian list would doubtless be forthcoming. The task we set ourselves in our late trip, so unfortunately interrupted, still remains to be done, and most assuredly new breeding species to India await the discoverer.

It was at first intended to publish two separate papers, one on the birds of Kohat and another on those of the Kurram Valley, but Whitehead has decided, wisely as I think, to combine them. The two localities are contiguous, and the latter is, as I mentioned before, the breeding-ground

X Division of many species that winter in the plains. Of the total number of 336 Pspecies which the list contains, 317 were jobben Eagle found in Kohat, the remaining 19 were met with only in the Kurram Valley. Considered together, therefore, the single paper will be found to be of greater scientific value than if the two districts had been separately treated, and Yr. Whitehead deserves much credit for the excellent piece of work which he has accomplished.

#### II.—Preface.

### By C. H. T. WHITEHEAD.

Major Magrath does not take any credit for his own work. Before I even started he had made a fair list of the birds of Kohat, and it was his enthusiasm that infected me. All that I have done is to somewhat amplify this list and add a little to the notes. The paper should have been written by him, but he insisted on my doing so, and has now most kindly gone carefully through it, making many necessary corrections and alterations and entirely rewriting the account of the Bulbuls of the genus Molpastes, the hybrid forms of which he was first to observe in Kohat.

Much interesting information was kindly contributed by Mr. D. Donald, C.I.E., the Political Officer and Commandant of the Border Military Police and Samana Rifles, which his long residence in Kohat (some 18 years), his frequent tours in the district, the interest he takes in birds generally, and in the Accipitrines in particular, and his great reputation as a falconer, render of especial value.

Specimens of most of the Passerine and of a large number of the remaining birds included in this paper were shot and carefully compared with Oates and Blanford's excellent descriptions, measurements and points of difference, if any, being always recorded, but only in the case of their not corresponding or of their being of special interest were skins made, for time did not permit of more. These skins are now in the British Museum and are those referred to in the paper. Amongst them will be found melanistic varieties of several species (Lanius lahtora, Passer domesticus, Anthus similis, + A contrepende venderen tree 10

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A. spipoletta), which, except in the case of the Shrike, were shot out of flocks of similarly coloured birds. Taken as a whole, however, the birds of the District are characterized by their pale colouring, which is what one would expect from the desert nature of the country.

Many more birds appear to halt in Kohat in the spring migration, which continues from February till well into June, than in the autumn. This is probably due to the configuration of the locality. As will be seen from the map (Plate III.), the main Kohat Valley at its junction with the Indus is comparatively broad but narrows considerably towards the Kurram River, with which it is connected by the Ishkalai, an insignificant stream flowing in at Thall. The latter stream is probably easily missed by the hosts of migrants passing down the Kurram River on southward migration in autumn. Major Magrath writes that they migrate down this river in the Bannu District in great numbers in August, September, and the first half of October.

In square brackets are added notes on those species met with by Major Magrath in Bannu, but not found by us in Kohat or in the Kurram Valley, as most of them would be likely to occur within our limits. The Bannu District, however, exhibits a great contrast to Kohat, consisting as it does for the most part of a broad, well-watered, highly cultivated plain with a good deal of marsh-land.

In the following notes, wherever the expression "we" is used it refers, of course, to Major Magrath and myself, as we worked together.

The word "plains" is used, as it usually is in India, to denote the low country—i.e., in this case, below about 3000 feet—as opposed to the main hill-ranges, and not merely the flat country, the greater part of Kohat being a maze of low hills and ravines. Similarly the word "desert" is used in its wider sense to include stony and not necessarily level wastes which cover such a large part of the District (where there is very little sandy desert).

The nomenclature followed is that adopted by Oates and Blanford in the 'Fauna of British India, Birds,' and the

numbers placed in brackets before the scientific names are those used in that work.

The following is a list of the papers chiefly referred to, all contributed to the 'Journal of the Bombay Natural History Society':—

RATTRAY, Colonel R. H.—Birds Collected and Observed at Thall. xii. pp. 337 to 348 (1899).

Marshall, Capt. T. E.—Notes on the Birds near Quetta: Part I. xiv. pp. 601 to 602 (1902); Part II. xv. pp. 44 to 64 (1903).

Fulton, Capt. H. T., D.S.O.—Notes on the Birds of Chitrál. xvi. pp. 44 to 64 and p. 744 (1904).

RATTRAY, Colonel R. H.—Birds'-nesting in the Murree Hills and Galis. xvi. pp. 421 to 428 and pp. 657 to 663 (1905).

CUMMING, J. W. N.—Birds of Seistan. xvi. pp. 686 to 699 (1905).

WARD, Colonel A. E.—Birds of the Provinces of Kashmir and Jammu and Adjacent Districts. xvii. pp. 108 to 113, pp. 479 to 485 (1906), pp. 726 to 729, pp. 943 to 949 (1907); xviii. pp. 461 to 464 (1908).

To obviate the inconvenience of looking up these papers I have added references, and where possible the gist of the note.

My best thanks are due to Dr. Bowdler Sharpe and Mr. Charles Chubb for much assistance in the identification of my skins, and to the former for very kindly going through my notes and putting them into correct form in spite of a great press of other work. Also to Dr. Hartert for going through the series of Wagtail- and Pipit-skins. Lastly, to Dr. Sclater, F.R.S., for most kindly looking through the proofs and seeing the paper through the press.

## III.—List of Birds and Remarks. By Lieut. C. H. T. Whitehead.

[1.] Corvus corax. The Raven.

Rattray, J. B. N. H. S. xii. p. 337 (common round Thall); Marshall, op. cit. xiv. p. 681 (the small race very common and resident at Quetta); Cumming, op. cit. xvi. p. 686 (rate in Seistan); Ward, op. cit. xvii. p. 108.

Ravens of all sizes are very common in the cold weather, especially round human habitations, the majority leaving in

April or early in May, but I have counted over 80 roosting together as late as the 18th of May near Kohat.

A few, however, mostly smaller birds, are resident all the year round.

[3.] Corvus corone. The Carrion-Crow.

Cumming, J. B. N. H. S. xvi. p. 686 (common in winter in Seistan, and often seen about houses); Ward, op. cit. xvii. p. 108 (resident in Kashmir, nesting between 8000 and 10,000 ft.).

505. 3 ad. Kurram Valley, 5800 ft., 19th April.

I am not sure whether this species occurs in the plains or not. Major Magrath has found it fairly common in winter in Bannu, so it probably does. In the Upper Kurram Valley it nests freely in April from 5000 ft. upwards, a Chinar (Plane-tree) near a village being usually selected as a nesting-site. Like the Raven, the Carrion-Crow is not a dweller in the wilds in these parts, but prefers the neighbourhood of mankind.

[4.] Corvus macrorhynchus. The Jungle-Crow.

Rattray, J. B. N. H. S. xii. p. 337 (Thall: very common); Fulton, op. cit. xvi. p. 45 (Lower Chitral: very common); Rattray, t. c. p. 421 (very common up to 9000 ft.: Murree Hills); Ward, op. cit. xvii. p. 108.

Abundant in the plains from November till mid-April (last seen on the 28th), partially taking the place of C. splendens. In summer it retires to the Ilex- and Fir-clad slopes of the higher ranges, nesting freely on the Safed Koh.

[5.] Corvus frugilegus. The Rook.

Marshall, J. B. N. H. S. xiv. p. 601 (once seen in January near Quetta); Cumming, op. cit. xvi. p. 686 (common in Seistan in winter); Ward, op. cit. xvii. p. 108 (occurs in winter along the R. Jhelum).

641. Sjuv. Samana, 6500 ft., 5th March.

744, 745. 9; 746. 3 juv. Kohat, 1760 ft., 25th March.

Visits the district in large flocks in winter, arriving in November and remaining as late as the middle of April.

The birds, however, staying on through March appear to be almost all young which have not entirely shed the face-feathers and nasal bristles. Oates, in the 'Fauna of India,' writes: "About January or when the young bird is about nine months old the nasal bristles are cast, and by March the front part of the head has become entirely denuded of feathers." Here, neither are entirely lost till April. The above-mentioned examples represent the ordinary type found here in March.

[6.] Corvus sharpii. Sharpe's Hooded Crow.

Corvus sharpii Oates, F. B. I., Birds, i. p. 20; Cumming, J. B. N. H. S. xvi. p. 686 (common in Tamarisk-jungle of Seistan); Ward, op. cit. xvii. p. 109 (a rare visitor to Kashmir).

We have not observed the Hoodie in Kohat, but Mr. Donald, the Political Officer, tells me that he has met with one or two almost every year, generally about the grassfarm. This Crow is a common winter visitor to the Peshawar and Bannu Districts, which are better suited to its habits. From the latter Major Magrath has sent a typical specimen of the race Corvus cornix sharpii to the British Museum.

[7.] Corvus splendens. The House-Crow.

Rattray, J. B. N. H. S. xii. p. 337 (not common at Thall); Ward, op. cit. xvii. p. 109 (common in the low country).

A resident and extremely common in summer. In mild winters numbers remain, but in severe weather it almost entirely disappears, *C. macrorhynchus* taking its place as the common cook-house scavenger.

[9.] Corvus monedula. The Jackdaw.

Rattray, J. B. N. H. S. xii. p. 387 (rare in Thall); Ward, op. cit. xvii. p. 109.

A rather rare winter visitor from December till March, occurring with large flocks of Rooks. Major Magrath noted immense flocks coming into the station on five consecutive evenings, just before the cold wave in January

1905. Similar flocks, but mixed with Rooks, roosted in cantonments for a few nights in February 1908.

[10.] PICA RUSTICA. The Magpie.

Marshall, J. B. N. H. S. xiv. p. 601 (common round Quetta); Fulton, op. cit. xvi. p. 46 (very common in Upper Chitral); Cumming, t. c. p. 686 (scarce in Seistan: 1700 ft.); Ward, op. cit. xvii. p. 109 (common in Ladak and Baltistan).

661. Marai, 2900 ft., 9th March.

773. 2 ad. Raisan, 2400 ft., 1st April.

A resident, but somewhat rare in Kohat, being more often seen in Samilzai than elsewhere; a few pairs also occur on the Samana, where Major Magrath found a nest in April built in an Ilex, just above the tennis-court. In the Upper Kurram Valley it is very common, especially near Peiwar, and occurs up to the tree-limits. The nest is usually placed in an Ilex, and is of the normal type, though often within six or seven feet of the ground. These examples appear to be typical *P. rustica*.

[16.] DENDROCITTA RUFA. The Indian Tree-Pie.

Rattray, J. B. N. H. S. xii. p. 337 (Thall: a few seen); Ward, op. cit. xvii. p. 109.

670. d ad. Raisan, 2300 ft., 12th March.

709. d ad. Kohat, 1760 ft., 19th March.

A common winter visitor to Kohat, arriving early in September and leaving about mid-April. A few pairs, however, remain to nest, Mr. Donald, the Political Officer, having several times observed young birds in July in the Miranzai Valley barely able to fly.

[24.] Garrulus lanceolatus. The Black-throated Jay. Rattray, J. B. N. H. S. xii. p. 337 (Thall: common on the hills); Fulton, op. cit. xvi. p. 46 (Lower Chitral: very common from 5000 to 10,000 ft.); Rattray, t. c. p. 421 (very common round Murree); Ward, op. cit. xvii. p. 109.

Rare in the plains. During the cold spell in November and December, 1905, a few individuals occurred about the



grass-farms and the orchards of Kohat. A resident on the Samana Range above 5000 ft., but not common.

Fairly plentiful in the Ilex-scrub in the Kurram Valley, occurring up to 8000 ft. Generally goes about in parties of four or five, out of the breeding-season, but sometimes collects into big flocks. Major Magrath observed one of about forty individuals near Peiwar (7000 ft.) in April 1907. Very shy and difficult to observe.

[28.] NUCIFRAGA MULTIPUNCTATA. The Larger-spotted Nutcracker.

Fulton, J. B. N. H. S. xvi. p. 46 (only got one specimen, no others seen); Ward, op. cit. xvii. p. 109, xviii. p. 461 (common: young hatch out in April; probably two broods).

Occurs sparingly amongst the conifers of the Safed Koh, but is more often heard than seen. Its cry resembles the syllables "käck-käck" rapidly repeated, hence its Pushtu name "Khäkärra."

[30.] Pyrrhocorax alpinus. The Yellow-billed Chough. Marshall, J. B. N. H. S. xiv. p. 605 (10,000 ft., near Quetta); Fulton, op. cit. xvi. p. 46 (Chitral: very common from 5000 ft. to 16,000 ft., according to season); Ward, op. cit. xvii. p. 109 (occurs from 5500 ft. in winter upwards, often caught in traps set round carrion for foxes).

Not common, but fairly well distributed in summer along the upper slopes of the Safed Koh above tree-limit. By the end of June the birds had collected into small flocks.

[31.] PARUS ATRICEPS. The Indian Grey Tit.

Marshall, J. B. N. H. S. xiv. p. 601 (winter visitor to Quetta: seen at Ziarat, 8000 ft., in May); Fulton, op. cit. xvi. p. 46 (Chitral: very common); Rattray, t. c. p. 421 (very common up to 6500 ft.: Murree); Ward, op. cit. xvii. p. 109.

327. 3 juv. Safed Koh, 7500 ft., 16th July.

A very common winter visitor to the District from mid-September till about the third week in April. A resident on the Samana above 5000 ft. Nests in the Ilex-scrub of the Upper Kurram in fair numbers. The first of the second of the first of the second of the

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Anthoscopus coronatus. The Turkestan Penduline Tit. Hartert, Pal. Vögel, i. p. 392.

Lachi, 1500 ft., 25th March; 3 2 ad., Kohat, 1760 ft., 7th-8th April; 3 ad., Kohat, 1760 ft., 18th March.

Major Magrath first observed a party of these Tits on a Peach-tree in his garden in April 1905. Since then we have met with the bird regularly from mid-March till mid-April in parties of from two or three to forty or more, chiefly frequenting Shisham trees, but also orchards and Camel-thorn scrub. The call-note resembles that of Zosterops palpebrosa and is constantly uttered.

Mr. T. R. Bell, I.F.S., was the first to discover this species in India. He met with parties of it in February 1904 in the tamarisk-acacia scrub-jungle near Sukkur, Sind, and procured several examples (vide J. B. N. H. S. xvii. p. 244).

[37.] ÆGITHALISCUS LEUCOGENYS. The White-cheeked Tit.

Fulton, J. B. N. H. S. xvi. p. 46 (resident and very common from 6000 to 12,000 ft. in Lower Chitral); Ward, op. cit. xvii. p. 109.

333. 3 ad. Safed Koh, 1800 ft., 20th July.

391. 2 ad. Samana, 5000 ft., 5th November.

A resident in the Upper Kurram Valley and on the Samana, being largely reinforced on the latter in winter form some individuals descending to the Hiranam and Samuela Valleys down to 2500 ft., where I have met with parties as late as the 9th of April.

Breeds freely in the Ilex-scrub near Peiwar from 6000 to 8000 ft. Nesting-operations must commence towards the end of March, as a nest found on the 1st of May contained fully fledged young. The factor is usually placed near the top of an Ilex-bush from three to seven feet above the ground. It is egg-shaped and rather like that of the British Longtailed Tit, but a good deal smaller and not quite so neat. It is made of moss and cobwebs outside, lined with a little grass, with a thick inner lining of feathers. The opening is

usually near the top, but is sometimes nearer the centre. We came across seven nests altogether, the first six containing young, and the seventh a nearly fresh clutch of five eggs. These are pure white, three having a very faint zone of spots round the large end, the remainder being unmarked, and averaging '58" × '39". The clutch appears to vary from five to eight. The young closely resemble their parents, but the colours are duller, and the black of the chin and throat is replaced by a few indistinct dusky streaks.

Capt. Keen also observed a pair of these Tits with a newly fledged family on the Samana.

In habits this species closely resembles the Long-tailed Tit, going about in parties of eight or nine in scrub-jungle, continually uttering its call-note, which may be rendered by the syllables "prit-t-t," while it is often in company with Parus atriceps.

[44.] LOPHOPHANES MELANOLOPHUS. The Crested Black Tit.

Fulton, J. B. N. H. S. xvi. p. 46 (abundant in Chitral from 5000 to 12,000 ft.); Rattray, t. c. p. 422 (common in the Murree Hills); Ward, op. cit. xvii. p. 110 (common in Kashmir).

Very common on the Safed Koh from 6500 ft. to treelimit. An early breeder. Major Magrath found a nest containing young on the 25th of April. It has a great variety of notes.

[91.] TROCHALOPTERUM SIMILE. The Western Variegated Laughing-Thrush.

Fulton, J. B. N. H. S. xvi. p. 47 (resident and very common up to 6000 ft. in Lower Chitral); Rattray, t. c. p. 422 (very common round Murree, up to 10,000 ft.); Ward, op. cit. xvii. p. 422.

417. Ad. Samana, 5600 ft., 19th December.

A resident, but rare. Altogether I met with about a dozen individuals in one wooded nullah on the northern slope of the Samana, but nowhere else. It is a great skulker; its loud whistling notes, however, proclaim its presence.

Usually found creeping about the densest part of the undergrowth.

[99.] TROCHALOPTERUM LINEATUM. The Himalayan Streaked Laughing-Thrush.

Rattray, J. B. N. H. S. xii. p. 337 (common in winter: Thall); Marshall, op. cit. xiv. p. 602 (common at 4000 ft. in February: Quetta); Fulton, op. cit. xvi. p. 47 (abundant in Chitral); Rattray, t. c. p. 422 (commonest bird in Murree Hills); Ward, op. cit. xvii. p. 110.

130. 3 ad. Marai, 3000 ft., 25th February.

579. Sex? Kohat, 1760 ft., 13th February.

633. ♀ ad. 1st March.

653. 2 ad. Hangu, 2700 ft., 8th March.

Abundant and resident on the Samana, many birds wintering in the Miranzai and Samilzai Valleys, and, in the winter of 1907/1908, quite a number visited the orchards around Kohat, staying till April. Occurs also in the Kurram Valley up to 7000 ft., but not so commonly. Pre up a 1 m

[105.] ARGYA CAUDATA. The Common Babbler.

Rattray, J. B. N. H. S. xii. p. 337 (abundant at Thall); Cumming, op. cit. xvi. p. 686 (very common in Seistan); Ward, op. cit. xvii. p. 110 (found in the outer ranges).

A resident and very common, especially in scrub-jungle, only occasionally visiting gardens. Does not ascend the hills to any height, its place being taken by the next species.

Breeds in April and May.

[104.] Argya Earlii. The Striated Babbler. Dorald reports Major Magrath obtained an example of this species last it as a continuous major majo March in a reed-bed in Bannu.

[110.] CRATEROPUS CANORUS. The Jungle-Babbler. Ward, op. cit. xvii. p. 110 (chiefly confined to Jammu).

639. 3 ad. Hangu, 2700 ft., 3rd March.

666. 3 ad. Marai, 3000 ft., 10th March.

A resident, taking the place of the last species from the foot of the hills, where the two occur together, up to factor at hundal 4000 feet in winter and 6000 feet in summer. Fairly chabuten

common, too, in the Miranzai Valley in winter, wherever there is plenty of scrub-jungle. Not observed in the Kurram Valley.

[139.] Pyctorhis sinensis. The Yellow-eyed Babbler.
Major Magrath has met with parties of this Babbler in the sugar-cane fields and reed-beds of Bannu. An example shot by him is now in the National Collection.

[187.] Myiophoneus temmincki. The Himalayan Whistling-Thrush.

Rattray, J. B. N. H. S. xii. p. 338 (common in winter: Thall); Marshall, op. cit. xiv. p. 602 (Quetta: 7000 ft. in May); Fulton, op. cit. xvi. p. 47 (common in Lower Chitral); Rattray, t. c. p. 422 (common in Murree Hills); Ward, op. cit. xvii. p. 110.

A fairly common winter visitor from mid-September till mid-April, rather rare round Kohat, but common in the Miranzai and Samilzai Valleys and on the Samana resident in the Kurram Valley, nesting between 6000 and 8000 feet. Usually found about cliffs and groves near water, but sometimes in very dry shadeless spots some distance from water.

[191.] LARVIVORA BRUNNEA. The Indian Blue-Chat.

Rattray, J. B. N. H. S. xvi. p. 423 (common at Murree); Ward, op. cit. xvii. p. 110 (nests in Kashmir up to 8000 ft.).

Occurs in summer along the lower slopes of the Safed Koh between 6500 and 8000 ft., but is not common except in one or two secluded glens. Very shy, has a rich but quite short song.

[226.] ZOSTEROPS PALPEBROSA. The Indian White-eye. 774. & ad. Kachai, 2700 ft., 1st April.

A cold-weather visitor to the District, the first parties arriving in August, but it does not become common till October, and leaves toward the middle of April. Possibly a resident on the Samana: a party of eight or nine stayed there during the winter of 1906-07, in spite of frequent

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heavy snow-storms; a large number arrived early in April, though whether only on migration or not I cannot say, as I left shortly afterwards. Not observed in the Kurram Valley.

[269.] Hypsipetes psakoides. The Himalayan Black Bulbul.

Fulton, J. B. N. H. S. xvi. p. 47 (common in summer); Rattray, t. c. p. 424 (common round Murree); Ward, op. cit. xvii. p. 111 (common in Kashmir).

583. 9 ad. Kohat, 1760 ft., 15th February.

630. 3 ad. ,, 1st March.

In 1907 several parties of this species visited the district early in February, staying till the end of March. They were always to be found about the same spot, never wandering far away. Berries of the Bakain tree seemed to form their staple food.

[283.] Molpastes intermedius. The Punjab Red-vented Bulbul.

Ward, J. B. N. H. S. xvii. p. 111 (found in Pooneh and Jammu).

634. ♀ ad. Kohat, 1700 ft., 1st March.

733. Jad. ", " 23rd March.

786. 3 ad. ,, ,, 4th April.

A resident and not uncommon in the gardens and orchards around Kohat, though seldom seen elsewhere in the District. This species, as Major Magrath has pointed out, probably interbreeds with M. leucogenys, as they are so often seen together, and birds intermediate in colouring are so common (vide next note). Mr. Donald, the Political Officer, states that on two separate occasions he has met with the present species in Kohat paired with a yellow-vented Bulbul and at the same nest. Further, that it is well known amongst local gardeners that the red- and yellow-vented Bulbuls do interbreed, their progeny being known as "Neemchi," i. e. half-breeds. M. intermedius is the common resident Bulbul of the Peshawur district north of Kohat.

Common on the combination on the combination of the 8.6.18

List of hybrids between M. intermedius and M. leucogenys.

					Ear-coverts	Under tail-coverts
<b>590.</b>	♂ad.	Kohat,	1760 ft.,	16th Feb	dingy white.	yellow.
<b>564.</b>	Ad.	,,	,,	6th ,,	>>	orange.
631.	우 <b>ad.</b>	"	"	lst Mar.	dark brown.	red,
635.	우 ad.	,,	,,	2nd "	<b>51</b>	pale buff.
689.	♀ <b>ad.</b>	"	,,	16th "	dirty white.	yellow with orange tips.
<i>7</i> 00.	♂ad.	,,	"	17th ,,	white.	orange.
710.	우 ad.	"	"	19th "	dark brown.	dull crimson.
735.	♀ ad.	"	, <b>))</b>	24th ,,	<b>))</b>	,,
<i>7</i> 58.	♂?	,,	"	28th "	dusky white.	orange.
785.	♀ad.	, 23	"	4th Apr.	dull white.	lemon- yellow.
790.	ðad.	,,	"	5th "	"	brownish orange.
791.	♂ad.	,,	<b>»</b>	5th ,,	"	orange- yellow.

(A truly wonderful series, but the birds must be hybrids.— R. B. S.)

These remarks are by Dr. Sharpe, and from them it will be seen that the series ranges from an almost pure *M. intermedius* to a nearly pure *M. leucogenys*. No two examples are alike, some being more like "intermedius," others more like "leucogenys" or "leucotis."

[284.] MOLPASTES LEUCOGENYS. The White - cheeked Bulbul.

Fulton, J. B. N. H. S. xvi. p. 47 (Chitral: summer visitor from March to October; very common up to 7000 feet); Ward, op. cit. xvii. p. 111 (very common in Kashmir).

Very grey on the breast, Kohat, 1760 ft., 16th Feb. but with pale yellow under tail-coverts. 591. 3 ad. 21st Mar. 724. 3 ad. 767. Pad. 31st ,, More typical. 779. 3 ad. 2nd Apr. " " 780. Ad. " 789. ♀ ad. 5th Apr. " " 792. ♂ad. ,, " " " |24]

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 This Bulbul is resident in Kohat, and breeds freely in the Station and in the orchards round about.

[285.] Molpastes Leucotis. The White-eared Bulbul.

Rattray, J. B. N. H. S. xii. p. 338 (common in February and March, a few pairs staying to breed); Marshall, op. cit. xiv. p. 602 (a few occur in March and April); Cumming, op. cit. xvi. p. 686 (Seistan: saw several which appeared to be of this species, but failed to secure any).

In July 1905 Major Magrath found a pair of Bulbuls nesting in his garden which he took to be of the present species. 'At that time he concluded that this bird in summer replaced the last as the breeding species in Kohat and was unaware, as we subsequently discovered (vide note on the last species), that M. leucogenys bred commonly in and around Kohat. Unfortunately we did not critically study the Bulbuls at that time, and not having since spent a "hotweather" in Kohat we have not had an opportunity of collecting any examples of the present species. According to Major Magrath, the note of this bird is well represented by the following words repeated rapidly: "Quick—a drink with you?"

[Molpastes magrathi. Magrath's Bulbul. X. Whitehead, Bull. B. O. C. xxi. p. 48 (1908).

In February 1907 Major Magrath sent a skin of a Bulbul obtained in the Bannu District to Dr. Bowdler Sharpe. The latter and other eminent ornithologists who examined it, finding that there was nothing exactly like it in the National Collection, were of opinion that it belonged to a new species. This opinion was further strengthened by the arrival of three more specimens collected by Major Magrath in the same locality. These all agreed more or less with the first example sent, except that the black of the breast in one was clearly defined from the whitish lower parts, instead of graduating into them as in the other specimens. At a meeting of the British Ornithologists' Club held on the 15th of January, 1908, I exhibited these specimens and

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described the bird as a new species, naming it as above in honour of its discoverer.

Major Magrath's specimens differ from the hybrid forms already described in being closely allied to *M. leucotis* and not to *M. leucogenys*. It is difficult to ascribe them to a hybrid form, as in the case of the Kohat birds, because *M. intermedius* does not, Major Magrath assures me, occur in Bannu, and *M. leucogenys* there is always more or less true to type.

[320.] SITTA KASHMIRENSIS. Brooks's Nuthatch.

Fulton, J. B. N. H. S. xvi. p. 48 (Chitral: very common from 6000 to 11,000 ft.; Ward, op. cit. xvii. p. 111 (obtained in April in Kashmir).

Fairly common on the Peiwar Spur of the Safed Koh and in the adjoining nullahs from 7500 to 10,000 ft.

[323.] SITTA LEUCOPSIS. The White-cheeked Nuthatch.

Fulton, J. B. N. H. S. xvi. p. 48 (Chitral: very common from 7000 to 12,000 ft.); Rattray, t. c. p. 424 (fairly common above 8000 ft.: Murree Hill); Ward, op. cit. xvii. p. 111 (fairly common).

This is the common Nuthatch of the Safed Koh, from 8000 ft. to tree-limit. Its curious call-note, resembling the word "pain" (pronounced like the French word for "bread"), may be heard all day long.

[327.] DICRURUS ATER. The Black Drongo, or King Crow.

Rattray, J. B. N. H. S. xii. p. 338 (summer visitor to Thall); Fulton, op. cit. xvi. p. 48 (Chitral: common in summer up to 5500 ft.); Ward, op. cit. xvii. p. 111 (Kashmir: occurs up to 7000 ft.).

One of our commonest summer visitors from the plains up to 8500 feet in the Kurram Valley, the first birds arriving in the middle of March and the species becoming common a fortnight later. It disappears towards the end of October. Probably, however, the Drongo we observed above 7000 feet on the Safed Koh belonged to the allied species D. longicaudatus, the differences not being very marked and the latter

being a common bird in the Murree Hills. Unfortunately no examples were procured.

[341.] CERTHIA HIMALAYANA. The Himalayan Tree-Creeper.

Fulton, J. B. N. H. S. xvi. p. 48 (shot in August); Rattray, t. c. p. 424 (Murree Hills: very comon); Ward, op. cit. xvii. p. 111 (abundant up to 10,000 ft.).

623. 9 ad. Kohat, 1760 ft., 29th February.

690. ♀ ad. ,, ,, 16th March.

A common cold-weather visitor to the District from September till April, occurring on the Samana up to 6000 feet. It does not by any means restrict itself to trees: I have often noticed it climbing up walls.

Breeds in fair numbers on the Safed Koh, from 7000 to 9000 feet.

The call-note is a faint squeak, rarely heard in winter, though in summer its loud but rather monotonous song is constantly uttered.

[348.] TICHODROMA MURARIA. The Wall-Creeper.

Marshall, J. B. N. H. S. xiv. p. 602 (Quetta: occurs in winter from 1000 feet upwards); Fulton, op. cit. xvi. p. 48 (Chitral: common from October till April); Ward, op. cit. xvii. p. 111 (winter visitor, sometimes assuming black throat-feathers).

40. Ad.? Khushalgarh, 1200 ft., 16th December.

315. & juv. Safed Koh, 15,000 ft., 12th July.

A winter visitor to the District from October till mid-March; common on the Samana, but less so elsewhere. Generally found singly or in pairs about cliffs, but occasionally some distance from rocks on earth-banks.

An example shot on the 13th of March had the black feathers on the throat and breast well developed.

On the 12th of July, 1906, I came across a newly-fledged family at 15,000 feet on the Safed Koh, in the shale screes, and shot one specimen. The wing- and tail-feathers were only partially grown, the bill was quite soft and very short,

and bits of down were still adhering to its plumage. It would therefore appear that the Wall-Creeper nests within Indian limits. When touring through the Kaghan Valley, Hazara District, this year (10th of July, 1908) my shikari minutely described to me a bird that he had seen that day, which could scarcely be anything else but a Wall-Creeper.

Mr. S. L. Whymper also informed me in a letter (I have not got this by me, but, so far as I remember, it was to the following effect) that a friend of his had actually found a Wall-Creeper nesting somewhere on the North-West Frontier, but had been unable to get at the nest.

Anorthura magrathi. Whitehead's Wren.

Whitehead, Bull. B. O. C. xxi. p. 19 (1908).

343. J. Safed Koh, 12,500 ft., 6th August.

344. ? Safed Koh, 8500 ft., 8th August.

Bill blackish, base and gape yellow; tarsus brownish flesh-coloured; iris brown.

This appears to be a well-marked race of A. neglecta, differing from it in being almost uniform in colouring above, the barring being scarcely perceptible, and in having the throat ashy grey. In summer it is found fairly commonly on the Safed Koh, from 8000 feet upwards, chiefly in the juniper-scrub. I have met with it on the very summit of the range, picking about amongst the rocks.

In habits and song it closely resembles A. parvula.

[358.] REGULUS CRISTATUS. The Goldcrest.

Ward, J. B. N. H. S. xvii. p. 111, and xviii. p. 461 (not common; eggs taken in May, June, and July in the Liddar Valley, Kashmir).

Fairly numerous in summer amongst the firs and deodars of the Safed Koh from 8000 to 11,000 feet. It food of hovering just below he and of a branch 6 today is Phyllos proceeding [359.] AEDON FAMILIARIS. The Grey-backed Warbler.

Rattray, J. B. N. H. S. xii. pp. 225, 339, & 579 (fairly common at Thall; found several nests); Watson, op. cit. xv. p. 144 (occurs at Chaman, near Quetta, in August and

[29]

September); Cumming, op. cit. xvi. p. 686 (very common in Seistan in summer).

246. 9 ad. Kohat, 1760 ft., 6th May.

Fairly common up to 3500 feet, from April till September. in dry scrub-jungle; round Thall it is particularly common. In the breeding-season the male may often be seen perched on the top of a bush, pouring forth its sweet song. In many of its habits it resembles the Indian Robin (Thamnobia cambayensis), especially in the way it flirts and spreads its tail, and also in its tame and confiding habits. If the intruder happens to approach the nest, the pair will follow him about uttering their alarm-cry-wütch, wütch. nest be found they get terribly excited, and will sometimes remain hovering in the air within a few feet. Of five nests taken, three were placed in thorn-bushes close to the ground, the other two on the ground under low shrubs. They were cup-shaped and loosely constructed of coarse grass and roots. I looked in vain for the bit of serpent-skin which Mr. Dresser, in the 'Manual of Palæarctic Birds,' states is always found in the nest of this species.

The specific title (familiaris) is very appropriate, but the trivial name (Grey-backed) seems to be only misleading, for the back is fulvous-brown, the most noticeable feature being the bright red, white-tipped tail which the bird is so fond of displaying.

[362.] LOCUSTELLA STRAMINEA. The Turkestan Grass-hopper-Warbler.

742. 9 ad. Kohat, 1760 ft., 25th March.

749. Sex? ,, ,, 26th March.

776. 3 ad. ,, ,, 2nd April.

Passes through the District in fair numbers from the third week in March till the middle of May. Not observed in autumn. It is chiefly found on the grass-farms and in young crops, occasionally in the gardens. It is not such a skulker as one would expect; there is no difficulty in flushing it, but it is not easy to observe or to shoot, except on the wing.

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1898, p. 9) and Lieut. Wilson (J. B. N. H. S. xii, p. 635) found it nesting in Kashmir.

[374.] ORTHOTOMUS SUTORIUS. The Indian Tailor-bird. Ward, J. B. N. H. S. xvii. p. 112 (occurs in Jammu, but is rare).

751. 9. Kohat, 1700 ft., 27th March.

A resident, common in gardens and orchards around Kohat. Not observed in the Kurram Valley.

[377.] Lusciniola melanopogon. The Moustached Sedge-Warbler.

152. 3 ad. Kohat, 1850 ft., 19th March.

696. 9 ad. Lachi, 1540 ft., 17th March.

A winter visitor in small numbers, largely reinforced in February and March. I have searched for it in May in the plains without success, but, on the other hand, I shot an example at Dandar (4700 ft.) in the Kurram Valley on the 20th of April? The wing and wing-muscles, however, are so feeble that it can scarcely go very far away to breed. Has a pleasing song which is often uttered, even in winter.

> The Rufous Fantail-[381.] CISTICOLA CURSITANS. Warbler.

77. 2 ad. Kohat, 1760 ft., 11th January.

Abundant in summer wherever there is cultivation. majority leave in autumn, but a few stay through the winter, and are then more often found in and around reed-beds than elsewhere. In the Kurram Valley we observed it as high as Parachinar (5700 ft.).

The Rufous - fronted 384. Franklinia buchanani. Wren-Warbler.

121. 3 ad. Jabba, 2400 ft., 18th February.

781. 3 ad. Kohat, 1760 ft., 3rd April.

A common resident in the scrub-jungle of the District, though it does not ascend the hills. It usually occurs in small parties or pairs and is always on the move, either creeping about in bushes or running mouse-like along the

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ground from one bush to another. In spring the air resounds with its cheery little song.

[394.] Hypolais Rama. Sykes's Tree-Warbler.

Marshall, J. B. N. H. S. xiv. p. 602 (summer visitor, nesting in May: Quetta); Bentham, op. cit. xvi. p. 749 (nests freely in rose-hedges: Quetta).

546. 9 ad. Thall, 2500 ft., 11th May.

759. 9 ad. Kohat, 1760 ft., 29th March.

Occurs sparingly on migration.

[396.] Hypolais caligata. The Booted Tree-Warbler.

Ward, J. B. N. H. S. xvii. p. 112 (passes through Baltistan, but rare).

229. 3 ad. Kohat, 1760 ft., 29th April, 1906.

551. ♀ ad. Thall, 2500 ft., 15th May, 1907.

Passes through in fair numbers in April and May, returning in August. Usually found in dry scrub. In appearance very like *Phylloscopus tristis*, but not quite so active. I think it possible that this species may breed within our limits.

[Major Magrath procured an example of the rare Hypolais obsoleta at Bannu on the 8th September, 1907. It was creeping about in grass with others.]

[398.] SYLVIA CINEREA. The Common Whitethroat.

Ward, J. B. N. H. S. xvii. p. 112.

357. 2 ad. Kohat, 1760 ft., 30th August.

358. ♂ ad. ,, ,, ,,

Not common. Only a few observed during the autumn migration at the end of August and beginning of September 1906.

[399.] Sylvia Jerdoni. The Eastern Orphean Warbler. Marshall, J. B. N. H. S. xiv. p. 602 (common in April and May: Quetta); Cumming, op. cit. xvi. p. 687 (common in the Tamarisks: Seistan); Betham, t. c. p. 831 (nests freely in April and May above 7000 ft.: Quetta); Ward, op. cit. xvii. p. 112 (recorded at Gilgit on migration).

491. 2 ad. Thall, 2500 ft., 14th April.

A summer visitor, and not common. Has a very fine song.

We found several pairs in the scrub round Thall in April. On picking up the above-mentioned example, I noticed some cobwebs in the bill, and on looking round found a nest in a thick bush close by. It was composed of roots, bits of green plants, and a lot of cobwebs, and had not been completed.

[400.] Sylvia nana. The Desert-Warbler.

Watson, J. B. N. H. S. xv. p. 145 (occurs near Chaman). 452. Sex? ad. Lachi, 1500 ft., 24th February.

This example was shot creeping about in a thorn-bush in the desert. One other was seen, in a similar spot, the following year. One that the following the fo

Marshall, J. B. N. H. S. xiv. p. 602 (believes that this sp. is fairly common at 8000 ft. in May); Fulton, op. cit. xvi. p. 48 (shot three in May between 5000 and 7000 ft.); Ward, op. cit. xvii. p. 112, and xviii. p. 461 (eggs taken in May and July at 8000 ft.).

232. 9 ad. Kohat, 1760 ft., 29th April.

Passes through Kohat and the Kurram Valley in spring and autumn, but is not common. In spring I have generally observed it in Shisham trees (Dulbergia sissoo) in company with the next species. These trees are then in flower and attract much insect-life. Birds shot in them generally have their heads covered with pollen. This White-throat is a beautiful songster.

[402.] Sylvia affinis. The Indian Lesser Whitethroat. Rattray, J. B. N. H. S. xii. p. 338 (winter visitor, not common: Thall); Betham, op. cit. xvi. p. 831 (a few pairs nest round Quetta); Ward, op. cit. xvii. p. 112 (common in summer in Kashmir).

- 41. Sex? Khushalgarh, 1200 ft., 16th December.
- 101. ♀. Kohat, 1760 ft., 5th February.

Passes through in large numbers in spring and autumn, a few staying for the winter. Breeds freely in the Kurram Valley in Ilex-scrub and low bushes from 6000 to 8000 feet. Like the last species it has a pleasing and remarkably loud

song, often uttering it on the wing. Much more confiding in summer than at other seasons.

[403.] Sylvia minuscula. The Small Whitethroat.

Marshall, J. B. N. H. S. xiv. p. 602 (small flocks on migration in April).

521. 9 ad. Peiwar, 6500 ft., 22nd April.

Probably not uncommon, but owing to its close resemblance to the last species must have often been overlooked. Altogether I shot some half-dozen specimens around Kohat in the cold weather. It appears to breed, in company with the last species, in the Kurram Valley, this example having been secured in a locality where many of the latter were then nesting.

[407.] PHYLLOSCOPUS TRISTIS. The Brown Willow-Warbler.

Marshall, J. B. N. H. S. xiv. p. 602 (shot one in February); Ward, op. cit. xvii. p. 112 (eggs taken in Ladakh).

56. 3 ad. Kohat, 1760 ft., 31st December.

110. d ad. ,, ,, 11th February.

Extremely common up to about 5000 feet from ear.y September till about the middle of May. Found everywhere, in gardens, groves, scrub-jungle, and desert; also on stony hill-sides where there is vegetation, in bare stubbles, and standing crops. It frequents more especially the neighbourhood of water, reed-beds, water-plants, and irrigation cuts. An expert flycatcher and very active. Except in spring, it is very silent.

[408.] Phylloscopus indicus. The Olivaceous Willow-Warbler.

Ward, J. B. N. H. S. xvii. p. 112 (eggs taken in August in Ladakh, 11,500 ft.).

185. 3 ad. Kohat, 1760 ft., 5th April.

Passes through Kohat in small numbers on migration in March and April. I only once observed it on the return migration, when a solitary example was seen on the 16th of September. Nests freely in parts of the Safed Koh Range. Differs in habits from other Willow-Warblers in

being rather a skulker, as it is usually found hopping and creeping about in the undergrowth. Its loud call-note of " tack" often indicates its whereabouts.

The Plain Brown [411.] PHYLLOSCOPUS NEGLECTUS. Willow-Warbler.

Ward, J. B. N. H. S. xviii. p. 461 (eggs taken and parents secured at Kargil in May and June).

706. 2 ad. Kohat, 1760 ft., 18th March.

This species is so difficult to distinguish from P. tristis until actually examined in the hand, that it is impossible to say whether it is fairly common or merely a straggler. above-mentioned example was the only one secured. busily fly-catching in a willow just like P. tristis.

[415.] PHYLLOSCOPUS PROREGULUS. Pallas's Willow-Warbler.

Rattray, J. B. N. H. S. xvi. p. 424 (nests freely in the Galis); Ward, op. cit. xvii. p. 112 (common in Kashmir).

664. 9 ad. Marai, 3000 ft., 9th March.

667. ♀ ad. Kachai, 2700 ft., 10th March.

I have met with it in spring at the foot Not common. of the hills and in summer on the Safed Koh at 8500 feet. Its song is very characteristic. Call the text that the best french [416.] PHYLLOSCOPUS SUBVIRIDIS. Brooks's Willow-

Warbler.

Kohat, 1760 ft., 5th February. 102. 3 ad.

113. ♀ ad. 10th February.

Samana, 6500 ft., 12th April. 276. Sex?

319. 2 ad. Safed Koh, 8800 ft., 13th July.

Fairly common in the District from October to April. Generally found solitary or in pairs in scrub and wild olivegroves, more rarely in orchards and gardens. the Samana in large numbers on migration. Nests freely on the lower slopes of the Safed Koh from 7000 to 9000 feet. A nest found on the 13th of July, 1906, was evidently an old structure re-lined, and was placed in the bank of a nullah under cover of a small bush. It was of the usual Willow-Warbler type and contained four fresh eggs (this was the

full clutch, the female having no eggs in the oviduct). They were white, thickly spotted with dark red, and averaged .55 × .4 inch.

In summer this Warbler frequently utters a loud monosyllabic call-note, not unlike that of the next species but not so loud. In winter this is only occasionally heard.

[418.] Phylloscopus humii. Hume's Willow-Warbler.

Fulton, J. B. N. H. S. xvi. p. 48 (only two obtained in Chitral); Rattray, t. c. p. 424 (very common in the Murree Hills); Ward, op. cit. xvii. p. 113 (breeds in Kashmir).

48. Ad. Kohat, 1760 ft., 23rd December.

55. 3 ad. , 31st December.

119 & 120. 3 ad. Kohat, 1760 ft., 16th February.

153. Ad. Kohat, 1760 ft., 18th March.

Abundant in the cold weather in Kohat from September till the end of April, frequenting gardens, orchards, and groves—usually singly. It has a loud call-note resembling the syllable "chwey," which is constantly uttered. Occurs on the Samana on migration, and nests in large numbers on the Safed Koh from 7000 to 11,000 feet. Its curious song, which may be rendered "pi-pi-piaz-z" (this being repeated with variations), is first heard in March, whilst still in its winter-quarters, and is continued throughout the summer, being usually uttered from the midst of a thick tree.

[421.] ACANTHOPNEUSTE NITIDAYS. The Green Willow-Warbler.

Ward, J. B. N. H. S. xvii. p. 113.

766. Ad. Kohat, 1760 ft., 31st March.

784. 3 ad. " 2nd April.

Passes through Kohat and the Kurram Valley in large numbers from the last week in March till the end of May, returning in September, when comparatively few are seen. This is the last Willow-Warbler to leave, and I have met with it at Kohat up till the 28th of May. Major Magrath says that this species is extremely common in Baunu in September and October. Its relative scarcity at that season in Kohat, together with that of many other species, may

perhaps be accounted for by its following the Kurram River down through the Bannu District instead of turning off at Thall up the Ishkalai, an insignificant stream which connects the Miranzai and Kurram Valleys.

[424.] ACANTHOPNEUSTE MAGNIROSTRIS. The Large-billed Willow-Warbler.

Rattray, J. B. N. H. S. xvi. p. 425 (fairly common in the Galis); Ward, op. cit. xvii. p. 113 (apparently rare).

I have only met with this species on the lower slopes of the Safed Koh, where it nests in small numbers between 7000 and 8000 feet. The call-note is loud and characteristic, name "Deru" our Control Control [428.] Acanthopheuste occipitalis. The Large-crowned

Willow-Warbler.

Rattray, J. B. N. H. S. xvi. p. 425 (very common round Murree); Ward, op. cit. xvii. p. 113 (nests from 7000 to 8000 ft. in Kashmir).

535. d ad. Kurram Valley, 6800 ft., 28th April.

Occurs sparingly in the Kohat orchards in April and May, but not observed in autumn. Abundant, however, on the ( Safed Koh Range in summer from 6000 to 10,00 feet, the being quite the commonest Willow-Warbler there. Its loud monotonous song may be heard from dawn to dusk all the , go of the number through.

> [434.] CRYPTOLOPHA XANTHOSCHISTA. Hodgson's Greyheaded Flycatcher-Warbler.

> Rattray, J. B. N. H. S. xvi. p. 426 (rare in Murree Hills, one nest found); Ward, op. cit. xvii. p. 113.

624. 2 ad. Kohat, 1760 ft., 29th February.

629. d ad. (testes big). Kohat, 1850 ft., 1st March.

665. 3 ad. Marai, 3000 ft., 9th March.

A fairly common winter-visitor to the district, arriving about the third week in October and leaving early in April. This species and Suya crinigera are the only Warblers found on the Samana above 5000 feet all through the winter; it is difficult to understand how they manage to pick up a living,

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the hill-side being often covered with snow for days together. Frequents scrub-jungle, gardens, and orchards, going about in small parties, and often uttering its pretty little song even in mid-winter.

[445.] SCOTOCERCA INQUIETA. The Streaked Scrub-Warbler.

Rattray, J. B. N. H. S. xii. p. 338 (Thall: common); Watson, op. cit. xv. p. 145 (very common round Chaman, near Quetta).

436. 2 ad. Banda, 1930 ft., 27th January.

608. & (testes very big). Lachi, 1540 ft., 25th February.

A common resident among scrub on dry stony hill-sides, but not seen above 3500 feet, nor far from the foot of the hills. The specific name is very appropriate: it is never still, but is always flitting or running mouse-like about from bush to bush, only pausing occasionally to sing a few notes of its cheery little song.

[456.] CETTIA ORIENTALIS. The Eastern Bush-Warbler.

167. d ad. Lachi, 1540 ft., 27th March.

701. 3 ad. Kohat, 1760 ft., 17th March.

732. 3 ad. ,, ,, 23rd March.

734. 2 ad. Chillibagh, 2100 ft., 24th March.

Bill dark brown, lower mandible flesh-coloured, gape yellowish; tarsus flesh-coloured; iris brown.

Passes through Kohat in fair numbers in March, frequenting reed-beds, gardens, and generally thick cover near water. A great skulker, usually occurring singly. My attention was first drawn to this species by a loud note, resembling the syllable "chéy," proceeding from the midst of a tamarisk. After much peering, I made out a small brown bird vigorously flirting its tail and evidently much resenting my presence. It was in this way that I always met with it.

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[458.] SUYA CRINIGERA. The Brown Hill-Warbler.

Rattray, J. B. N. H. S. xvi. p. 426 (nests freely in Murree Hills); Ward, op. cit. xvii. p. 113 (common in Kashmir).

663. ? ad. Marai, 4000 ft., 9th March.

677. 3 ad. Thall, 2500 ft., 14th March.

A resident on the Samana and fairly common. In winter it descends to the Miranzai Valley, occurring commonly in the scrub-jungle near the foot of the hills.

We did not meet with it in the Kurram Valley, though I shot one at the entrance, near Thall.

[462.] PRINIA LEPIDA. The Streaked Wren-Warbler.

Cumming, J. B. N. H. S. xvi. p. 687 (fairly common amongst the Tamarisks: Seistan, 1700 ft.); Ward, op. cit. xvii. p. 114 (occurs in outer hills, but not in Kashmir proper).

617. d (testes very big). Lachi, 1540 ft., 26th February).

697. 2 ad. Lachi, 1540 ft., 17th March.

698. ♂ ad. ", ",

A resident in the plains, and not uncommon about reedbeds and tamarisk-scrub, being particularly abundant in the Lachi Plain. Nesting-operations are begun in March, and from then till May the curious reeling song is constantly to be heard.

[[463.] Prinia flaviventris Deless.

Major Magrath has found this species common in the reed-beds of Bannu, the adjoining District on the south, and has forwarded examples to the British Museum.

[466.] Prinia inornata. The Indian Wren-Warbler.

Rattray, J. B. N. H. S. xii. p. 337 (Thall: occurs in the reeds); Ward, op. cit. xvii. p. 113.

683. Ad. Thall, 2500 ft., 14th March.

750. 3 ad. Kohat, 1600 ft., 26th March.

Resident but rather rare, except along the banks of the Kurram River.

In Bannu, however, where the country is more suited to its habits, Major Magrath has found it extremely common.

[469.] Lanius Lahtora. The Indian Grey Shrike.

Rattray, J. B. N. H. S. xii. p. 338 (Thall: an uncommon summer visitor); Marshall, op. cit. xiv. p. 602 (in April

near Quetta); Ward, op. cit. xvii. p. 479 (occurs in Jammu).

567. 3 ad. Kohat, 1760 ft., 6th February.

658. 2 ad. Hangu, 2650 ft., 8th March.

A resident, chiefly found in the desert, but not commonly, more numerous in winter than summer. Major Magrath found a nest containing four slightly incubated eggs on the 12th of May near Thall. Not met with above 3500 feet in the Kurram Valley.

[473.] Lanius vittatus. The Bay-backed Shrike.

Rattray, J. B. N. H. S. xii. p. 338 (very common and resident at Thall); Marshall, op. cit. xiv. p. 602 (Quetta; an uncommon summer visitor); Fulton, op. cit. xvi. p. 48 (Chitral: common in summer up to 6000 ft.).

520. & ad. Kurram Valley, 6500 ft., 23rd April.

Fairly common from the last week in March till September in Kohat and the Kurram Valley. We both believe that we have observed stray examples of this species in winter, but cannot be certain. I noted it in Lahore, some 200 miles S.E., early in February.

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[476.] LANIUS ERYTHRONOTUS. The Rufous - backed Shrike.

Rattray, J. B. N. H. S. xii. p. 338 (Thall; abundant); Marshall, op. cit. xiv. p. 602 (Quetta: very common in summer); Fulton, op. cit. xvi. p. 43 (common in Chitral in summer up to 7000 ft.); Betham, t. c. p. 750 (breeds freely); Ward, op. cit. xvii. p. 479 (widely distributed in Kashmir).

A resident, and extremely common in summer everywhere up to 7000 feet. The majority leave for warmer climes in epest minue: stry lack, redshark, vislins like pie (x2). etc blk the thurst

[479.] Lanius isabellinus. The Pale-Brown Shrike.

Marshall, J. B. N. H. S. xiv. pp. 602, 606 (Quetta: a summer visitor, nesting in May between 7000 and 9000 feet).

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109. 9 ad. Kohat, 1700 ft., 8th February.

A fairly common winter visitor from October to April.

I shot an example in the Kurram Valley at 6500 feet on the 2nd of May; possibly a few pairs nest up there.

[495.] Pericrocotus brevirostris. The Short-billed Minivet.

Fulton, J. B. N. H. S. xvi. p. 49 (Chitral: summer visitor, nesting commonly from 7000 to 9000 ft.); Rattray, t. c. p. 426 (nests freely in Murree Hills); Ward, op. cit. xvii. p. 479 (breeds in Kashmir).

A common winter visitor to the District from the end of September to April. Nests freely on the Safed Koh between 6000 and 8000 feet. Captain Keen observed a few on the Samana all through the summer, and believes that they nested there. An example collected by Major Magrath in Bannu, and now in the National Collection, is typical.

[500.] Pericrocotus peregrinus. The Small Minivet. Ward, J. B. N. H. S. xvii. p. 479.

Very rare. I came across a pair in some camel-thorn-scrub (Acacia modesta), three miles west of Makhud on the Indus, but unfortunately failed to secure them. It is a bird I know well, however, having frequently met with it near Rawal Pindi (100 miles east), and I have also shot it there.

[518.] ORIOLUS KUNDOO. The Indian Oriole.

Rattray, J. B. N. H. S. xii. p. 338 (common on migration); Marshall, op. cit. xiv. p. 602 (a summer visitor to Quetta); Watson, op. cit. xv. p. 145 (Quetta: common in gardens, mostly immature); Fulton, op. cit. xvi. p. 49 (very common in summer in Chitral up to 8000 ft.); Rattray, t. c. p. 426 (common near Murree at 5500 ft.); Ward, op. cit. xvii. p. 479 (breeds in Kashmir up to 6000 ft.).

A large number pass through Kohat in April and the beginning of May, returning in August and September: many breed in the orchards of the Kurram Valley, a few also in Kohat.

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[488 Lephendorni producciono. The Common Wood Shake.

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[528.] Pastor Roseus. The Rosy Pastor.

Rattray, J. B. N. H. S. xii. p. 338 (Thall: passing through in vast numbers); Marshall, op. cit. xiv. p. 602 (common at Chaman at the end of April).

Major Magrath has written the following note on this species in Kohat:-"Passes through this district in vast flocks during the spring and autumn migrations. At the spring passage the birds are slaughtered in hundreds by the natives, every man possessing a firearm turning out for the They arrive about the middle of April and the rush continues till the middle of May. The mulberries, which are ripe at this season, are eagerly devoured by them, and the ripe corn also suffers from their depredations. young birds remain in the district throughout the hot weather. The return passage begins about the end of July. being at its height by the middle of August, and lasting into September. Very few adult birds are to be seen at this time. The direction of the flight through the district is N.W. and S.E. for spring and autumn migrations respectively. The vast flocks which roost in and about the cantonments become an unmitigated nuisance while they are with us." writing the above, Major Magrath has noted the appearance of small flocks of adult birds in the middle of summer, as metaday will also have Captain Keen and I; in fact, between us we have between Haud noted them at short intervals throughout the summer, and it & House, Made seems probable that some of them at least breed a good deal on the 11th July 17 nearer India than Asia Minor. Small flocks of immature birds stay with us till November. Curiously enough, in the spring of 1907 only a few small flocks were observed passing through the Kohat district. The migration appears to have been diverted elsewhere, though whether this was due to the district being invaded at the time by vast armies of locusts in the crawling stage, I cannot say. One would have imagined that this would have had an opposite effect.

[529.] STURNUS HUMII. The Himalayan Starling. Rattray, J. B. N. H. S. xii. p. 338; Marshall, op. cit. xiv. p. 602 (rare at Quetta, shot in March and April); Ward,

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op. cit. xvii. p. 479 (very common in Kashmir in summer from 5000 to 7000 feet).

We must have overlooked this Starling. Colonel Rattray records it from Thall as "not common, but a fair number may be seen any day during April and May..." An example that by me on the 14th of April (the last date on which a Starling was seen) proved to be Sturnus menzbieri.

[530.] STURNUS PORPHYRONOTUS. The Central Asian Starling.

Watson, J. B. N. H. S. xv. p. 145 (in flocks in Chaman, near Quetta, in December); Ward, op. cit. xvii. p. 479 (does not appear to breed in Kashmir); Perreau, op. cit. xviii. p. 186 (occurs in Chitral).

62. 3 ad. Kohat, 1760 ft., 4th January.

688. 3 ad. Kohat, 1760 ft., 16th March.

719, 721. 3 ? ad. Kohat, 1760 ft., 21st March.

A winter visitor, not so common as the next species, occurring singly or in flocks, often in company with S. menzbieri.

As Dr. Sharpe has pointed out to me, both Major Magrath's examples from Bannu and mine from Kohat shew signs of the mixing of this race with some other, the head being generally marked in places with purple gloss.

[532.] STURNUS MENZBIERI. The Common Indian Starling.

Rattray, J. B. N. H. S. xii. p. 339 (Thall: common in winter); Fulton, op. cit. xvi. p. 49 (Chitral: common winter visitor); Cumming, t. c. p. 687 (probably the Starling which occurs in flocks in Seistan in winter); Ward, op. cit. xvii. p. 479 (the majority migrate through, a few nest).

63. d ad. Kohat, 1760 ft., 4th January.

117. d ad. " " 13th February.

718-720. 3, 2, 3. Kohat, 1760 ft., 21st March.

Abundant in the cold weather, arriving about the third week in October and leaving towards the middle of April.

[544.] TEMENUCHUS PAGODARUM. The Black-headed Myna.

Fulton, J. B. N. H. S. xvi. p. 49 (very common in summer in Chitral at 5000 ft.); Rattray, t. c. p. 427 (rare in the Murree Hills); Ward, op. cit. p. 479 (occurs in Kashmir, but is rare).

A summer visitor to the district. I have only twice met with this species, once on the 25th of August, when I observed about a dozen feeding in a garden in company Chiladak with the Common Myna, and again a pair on the 4th of June. Mr. Donald, the Political Officer, however, tells me that a few pairs nest regularly every year near Hangu (2700 feet), usually selecting holes in the Boquain tree (Melia azedarach) as nesting-sites.

[549.] Acridotheres tristis. The Common Myna.

Rattray, J. B. N. H. S. xii. p. 339 (common and resident); Marshall, op. cit. xiv. p. 602 (a few occur in spring); Fulton, op. cit. xvi. p. 49 (resident in Chitral, occurring up to 8000 ft. in summer); Rattray, t. c. p. 427 (common around Murree); Ward, op. cit. xvii. p. 479. Oppouli, muguton to

Resident and extremely common, occurring up to 7000 a cutous est. feet in the Kurram Valley in the summer, and at Fort Saw a flock Lockhart (6500 feet) all the year round, in spite of the heavy snowfall. short cut to Kokat Kotal

[551.] ACRIDOTHERES GINGINIANUS. The Grey Bank-Myna.

Small flocks occur in the District in February and March, and are usually seen following the cattle on the grass-farms. Major Magrath has found the bird fairly common in Bannu, and has sent an example to the British Museum.

Ampelia Garrulus. The Waxwing. Whitehead, Bull. B. O. C. xxi. p. 19.

416. 9 ad. Samana, 6500 ft., 16th December, 1906.

I first met with this handsome bird on the 11th of December, in a small garden near the Fort, but just as I had sighted it through my glasses, up flew a flock of Goldfinches and began mobbing it, and away it went uttering a soft whistling note. Five days later, on visiting the same spot, I was lucky enough to again find a Waxwing there. It was in fine condition with four wax-like tips to the secondaries of each wing. In addition to this example, Major Magrath shot one, a male (extremely fat), in his garden in Bannu, lat. 33° (apparently the furthest southern record for this species), on the 20th of March. Colonel Ward records another secured on the 8th of the same month at 7000 feet in Kashmir.

[To be continued.]

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ON THE

## BIRDS

OF

## KOHAT AND KURRAM, NORTHERN INDIA.

BY

LIEUT. C. H. T. WHITEHEAD, INDIAN ARMY.

WITH AN INTRODUCTION BY

MAJOR H. A. F. MAGRATH, INDIAN ARMY.

PART II.

On the Birds of Kohat and Kurram, Northern India.

By Lieut. C. H. T. WHITEHEAD, Indian Army. With an Introduction by Major H. A. F. MAGRATH, Indian Army.

—Part II\*.

[558.] Hemichelidon sibirica. The Sooty Flycatcher.

Fulton, J. B. N. H. S. xvi. p. 50 (Chitral, 4000 ft.); Rattray, t. c. p. 427 (common above 8000 ft. on Murree Hills); Ward, op. cit. xvii. p. 479.

250. 3 ad. Kohat, 1768 ft., 9th May.

Capt. Keen shot this bird in our garden on the 8th of May. In the course of the following week I came across several more. It nests commonly in the forests of the Safed Koh up to tree-limit.

[561.] SIPHIA PARVA. The European Red-breasted Flycatcher.

Marshall, J. B. N. H. S. xiv. p. 603 (Quetta: common in April); Fulton, op. cit. xvi. p. 50 (common in Lower Chitral in winter, leaving in mid-April).

715. 3 ad. Kohat, 1768 ft., 20th March.

Major Magrath has made the following notes on this species:—"A winter visitor abundantly reinforced during the spring migration. The rush north-west is at its height in the middle of April and continues till the end of the month. The last birds remain till well into May. The adult males are the first to leave, the females and immature birds following two or three weeks later. The return migration commences in October. Few examples with chestnut breasts are to be seen at this season. This Flycatcher constantly descends to the ground to take its prey."

In autumn I have seen it as early as Sept. 13th. We did not meet with a single adult male in winter, the first appearing about the middle of March.

\* Continued from above, p. 134. The arrangement and nomenclature followed are those of Oates and Blanford's "Birds" in the 'Fauna of British India.' The numbers in square brackets before each name are the same as in that work.

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[567.] CYORNIS LEUCOMELANURUS. The Slaty-blue Flycatcher.

Ward, J. B. N. H. S. xvii. p. 480 (very plentiful in Kashmir).

627. d ad. Kohat, 1850 ft., 1st March.

This solitary example was the only one met with. Its alarm-note (tit-it-it) attracted my attention.

[568.] CYORNIS SUPERCILIARIS. The White-browed Blue Flycatcher.

Rattray, J. B. N. H. S. xvi. p. 427 (common in Murree Hills); Ward, op. cit. xvii. p. 480 (plentiful).

528. 3 ad. Kurram Valley, 7500 ft., 24th April.

A rare bird. I shot one near Kohat on the 13th of April, and this was the only example seen in the plains. A second 1 got near the Peiwar Kotal, and believe that I heard one or two more close by.

Equicicapa ceylonensis (Sw.). Major Magrath shot an example of this species, which is now in the National Collection, in Bannu, in October, and has since found it a fairly common winter visitor. Some in the National Kollection of the Collection o

Fulton, J. B. N. H. S. xvi. p. 50 (shot two in April); Ward, op. cit. xvii. p. 480 (breeds at high altitudes in Kashmir).

Abundant in summer on the Peiwar Spur, and in the Spin Khwar Nullah of the Safed Koh, from 8000 to 11,000 feet. As Major Magrath has pointed out, it is quite likely that this species occurs in Kohat in winter, but, from its remarkable likeness to the female Ruticilla rufiventris, has been overlooked. It may be distinguished from the latter by its not shaking its tail. It is a good songster with a great variety of notes.

[598.] TERPSIPHONE PARADISI. The Indian Paradise-Flycatcher.

Marshall, J. B. N. H. S. xiv. p. 606 (shot one in May near Quetta); Fulton, op. cit. xvi. p. 50 (an uncommon

summer visitor up to 5000 ft.); Ward, op. cit. xvii. p. 480 (common in summer).

A fairly common summer visitor, arriving early in April, leaving towards the end of September, and nesting freely in the shady orchards of Kohat.

[608.] Pratincola Caprata. The Pied Bush-Chat.

Rattray, J. B. N. H. S. xii. p. 339 (Thall: scarce); Marshall, op. cit. xiv. p. 603 (Quetta: common in summer); Fulton, op. cit. xvi. pp. 50 & 744 (resident in Chitral); Cumming, t. c. p. 687 (Seistan: a scarce summer visitor); Betham, t. c. p. 750 (common); Ward, op. cit. xvii. p. 480 (rare in Kashmir).

A fairly common summer visitor from the second week in March till October, but not found much above 3000 feet in the Kurram Valley.

[610.] PRATINCOLA MAURA. The Indian Bush-Chat.

Rattray, J. B. N. H. S. xii. p. 339 (abundant at Thall in April); Marshall, op. cit. xiv. p. 603 (a few at Quetta in April); Fulton, op. cit. xvi. pp. 50 & 744 (shot one at 6000 ft.); Rattray, t. c. p. 467 (common in Murree); Ward, op. cit. xvii. p. 480 (common up to 7000 ft.).

722. 3 ad. Kohat, 1768 ft., 21st March.

Passes through Kohat in force from February till mid-May, returning in small numbers in August and September; a few stragglers remain for the winter. Nests freely on the Samana and in the Kurram Valley from 5000 to 7000 feet. I have shot a recently fledged young bird as high as 9000

[614] Greicola ferria The Dork Grey Buch Chat. 18 12 [618.] SAXICOLA PICATA. The Pied Chat. Them.

Marshall, J. B. N. H. S. xiv. p. 480 (Quetta: common summer visitor); Betham, op. cit. xvi. p. 750 (nests freely); Ward, op. cit. xvii. p. 480 (scarce: Kashmir); Perreau, op. cit. xviii. p. 186 (occurs in Chitral).

A fairly common winter visitor to the District from October till the end of March, chiefly frequenting stony wastes and hill-sides, and particularly common between Lachi and Latammar. Nests freely on the Samana. Capt. Keen

Los Rhipidura albredlis Whiteltersted Fantail Flyesteder Weebler wotable at close queles for our & he in Rawel Pink 5.1.1913 Same confiding babits on the look - browned F.Fe to Name still fremy on flatting from tuning to time - black attending an important white (name) or einght ]

W27 T2.6 B.7 Bell tous ble gape flech o?

found a nest on the 14th of May containing six fresh eggs. A beautiful songster, singing both on the wing and on the ground.

[619.] SAXICOLA CAPISTRATA. The White-headed Chat.

Rattray, J. B. N. H. S. xii. p. 339 (common in winter at Thall: many young birds seen at Parachinar in July); Marshall, op. cit. xiv. p. 603 (shot one at Sibi, 5000 ft., in Feb.); Fulton, op. cit. xvi. p. 50 (occurs in Chitral in summer from 7000 to 11,000 ft.); Cumming, t. c. p. 687 (shot one in March: Seistan).

302. & juv. Parachinar, 5700 ft., 7th July.

435. 2 ad. Banda, 1900 ft., 27th January.

A cold-weather visitor to the District and very abundant from the third week in August till April, frequenting both desert country and open cultivated lands and especially common by the roadside. In the Kurram Valley it nests freely round Parachinar from 4500 to 6500 feet, but rarely as high as 9000 feet. The nest, a neat grass structure, is usually placed in a hole in the bank of a nullah or under a stone in the nullah-bed, occasionally in a cairn of stones. The eggs are pale blue, varying a good deal in shade, marked with red spots also varying much in shade and distribution, and average '79 in. × '53 in. The full clutch is five. Two broods at least are reared in the season.

[620.] SAXICOLA OPISTHOLEUCA. Strickland's Chat.

Fulton, J. B. N. H. S. xvi. p. 50 (the commonest bird in Chitral, moving up or down according to season); Ward, op. cit. xvii. p. 480 (migrates through Baltistan).

433. Ad. Hangu, 2700 ft., 27th December.

A fairly common cold-weather visitor from September to proceed to the middle of April, keeping chiefly to stony ground. It we can migrates through the Kurram Valley in April.

[624.] SAXICOLA CHARTHE. The Wheater. & R. C. Clat. Ward, J. B. N. H. S. xvii. p. 481, & xviii. p. 461 (one shot in Wardwan in Sept. 1907); Perreau, t. c. p. 186 (occurs in Chitral, speckmen shot).

702. 9. Kohat, 1768 ft., 18th March.

This was the only example secured, but, owing to its close resemblance to the fellowing species, the bird has probably been overlooked.

[625.] SAXICOLA ISABELLINA. The Isabelline Chat.

Rattray, J. B. N. H. S. xii. p. 339 (Thall: found a nest at 4000 ft.); Marshall, op. cit. xiv. p. 603 (common in summer, nesting down holes); Cumming, op. cit. xvi. p. 688 (Seistan: fairly common in spring); Betham, t. c. p. 748 (Quetta: numerous, nesting in rat-holes); Ward, op. cit. xvii. p. 481 (Baltistan).

A common cold-weather visitor to the desert parts of the District from August till April.

[626.] SAXICOLA DESERTI. The Desert Wheatear.

Marshall, J. B. N. H. S. xiv. p. 603, & xv. p. 355 (Quetta: found a nest with young in a bank); Cumming, op. cit. xvi. p. 688 (one shot in January); Ward, op. cit. xvii. p. 481, & xviii. p. 462 (occurs in Kashmir in spring and in Ladak in summer).

618. 2 ad. Kohat, 1760 ft., 28th February.

Fairly common from November till the third week in March, but not such an exclusive haunter of the desert as some of its allies, being frequently met with about cultivated lands.

[628.] SAXICOLA CHRYSOPYGIA. The Red-tailed Chat.

Watson, J. B. N. H. S. xv. p. 145 (shot in September near Chaman); Perreau, op. cit. xviii. p. 186 (Chitral).

Common in the cold weather from September to mid-April about low stony hills.

[638.] CHIMARRHORNIS LEUCOCEPHALUS. The White-capped Redstart.

Rattray, J. B. N. H. S. xii. p. 340 (January); Fulton, op. cit. xvi. p. 744 (rather rare); Ward, op. cit. xvii. p. 481 (common in Kashmir).

Occurs in the Miranzai Valley from Raisan upwards from October to the middle of April, but is somewhat rare. Abundant, however, in summer along the torrents of the Safed Koh up to tree-limit.

[642.] RUTICILLA ERYTHRONOTA. Eversmann's Redstart.

Marshall, J. B. N. H. S. xii. p. 603 (common in winter);
Ward, op. cit. xvii. p. 481 (occurs in spring). Said. Maisan, 2360 ft., 25th December.

51. ? ad. Raisan, 2360 ft., 25th December.

100. Sad. Kohat, 1760 ft., 4th February.

Fairly common, especially in the Miranzai Valley, from December till March, and on the Samana from October till the end of March, chiefly frequenting scrub-jungle, olive-groves, and avenues. The call is a peculiar croaking note sounding like gre-er. The male assumes nearly full breeding-plumage before leaving. Not observed in the Kurram Valley.

[644.] RUTICILLA RUFIVENTRIS. The Indian Redstart.

Marshall, J. B. N. H. S. xiv. pp. 603, 606 (a common resident up to 11,000 ft. in summer); Fulton, op. cit. xvi. p. 51 (common from 9000 to 14,000 ft. in July); Ward, op. cit. xvii. p. 481 (nests in Ladak).

A winter visitor, abundant from September to mid-April, but only occurring on the Samana on passage. A few pairs nest on the Safed Koh above 10,000 feet. The nest is usually well concealed under a stone or sometimes in a hollow in a bank, and is made of bents and grass lined with hair. The eggs are very pale blue without markings, and vary much in size. The full clutch appears to be five.

[646.] RHYACORNIS FULIGINOSUS. The Plumbeous Redstart.

Fulton, J. B. N. H. S. xvi. p. 51 (a common resident in Chitral from 4000 to 7000 ft.); Rattray, t. c. p. 428 (common in the Galis); Ward, op. cit. xvii. p. 481 (very common on all hill-streams).

660. 2. Kachai, 2700 ft., 9th March.

Major Magrath observed this Redstart by the Khanki River at Raisan in October 1905; this is the only example of the species we have noted besides that which I procured at Kachai.

[647.] CYANECULA SUECICA. The Bluethroat.

Marshall, J. B. N. H. S. xiv. p. 603 (common in March and April at Quetta); Fulton, op. cit. xvi. p. 51 (common in September and October); Ward, op. cit. xvii. p. 481 (common in Kashmir).

Passes through the District and up the Kurram Valley in large numbers from March till the end of May. The return passage, commencing in the last week of August, is at its height in September. A certain number of immature birds winter in Kohat, and are then chiefly found in the reedbeds. On many the weather were the comment that the distant and of a most endergo.

[654.] IANTHIA RUFILATA. The Red-flanked Bush-Robin. Ward, J. B. N. H. S. xvii. p. 481, & xviii. p. 462 (breeds in Kashmir).

95. ? ad. Kohat, 1760 ft., 21st January. 669. 3 ad. Kachai, 2700 ft., 12th March.

A rare winter visitor to the Samana and the orchards of Kohat and Miranzai. Capt. Keen was the first to meet with it. Fairly numerous on the wooded slopes of the Safed Koh from 8000 to 10,000 feet in summer. The call-note resembles the syllable prot, the mate answering ee (both notes are used by the two sexes). Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer. The Capture of the Safed Koh from 8000 to 10,000 feet in summer.

Fulton, J. B. N. H. S. xvi. p. 51 (resident: Chitral); Rattray, t. c. p. 428 (very rare, nests in holes in stumps: Murree Hills); Ward, op. cit. xvii. p. 481 (occurs in April: Kashmir).

A winter visitor to the District from December till mid-March, and to the Samana from the first week in November till the end of March, but in varying numbers. In 1906 and 1907 it was fairly common, but in 1908 I only met with one specimen. Usually frequents olive-groves and gardens, and on the Samana scrub-jungle. In the woods of the Safed Koh, however, it is abundant in summer from 7500 to 12,000 feet. It has the tame and confiding habits of the Redbreast, and the same way of quivering the tail. The

alarm-notes, too, are very similar. The two nests that I came across might well have been those of the Redbreast. The first was placed on the ground under shelter of a juniper-root (not in a hole) at 11,000 feet, and contained three eggs just hatching; they were cream-coloured, with a darker zone near the larger end, and differed a good deal in size. The second was in a similar position at 8000 feet, and had four eggs of similar type, but very faintly tinged with green and slightly smaller, averaging '68" × '48".

[661.] THAMNOBIA CAMBAIENSIS. The Brown-backed Indian Robin.

Rattray, J. B. N. H. S. xii. p. 340 (a common resident); Ward, op. cit. xvii. p. 481.

686. 3 ad. Kohat, 1760 ft., 16th March.

A fairly common resident in the plains. As Major Magrath notes, it differs from its down-country relatives in shunning gardens and cultivated spots, preferring arid stony localities, and shewing a marked partiality for graveyards. It does not ascend the hills to any height, and in the Kurram Valley we did not find it above 3000 feet.

[666.] MERULA MAXIMA. The Central Asian Blackbird. Ward, J. B. N. H. S. xvii. p. 482 (breeds in Kashmir at high altitudes).

295. Juv. Safed Koh, 10,500 ft., 1st July.

Bill, gape, and eyelid brownish yellow; tarsus fleshy brown; iris brown.

Apparently very rare, this example being the only one met with. In July 1908 I found this fine bird fairly common outside our limits near the head of the Kághán Valley (Hazara, N.W. F. P.), between 12,000 and 13,500 feet, either in parties of from three to ten, or occasionally alone. It was very wild, and it was with difficulty that I procured three examples (now in the British Museum). I never heard it utter the rattling alarm-cry of M. vulgaris, but only the low chuckle characteristic of the genus. Usually found feeding on small white caterpillars, (which were very common on the grassy slopes) or amongst rocks, but sometimes in juniper-scrub.

[672.] MERULA CASTANEA. The Grey-headed Ousel.

Rattray, J. B. N. H. S. xvi. p. 657 (abundant in the Murree Hills); Ward, op. cit. xvii. p. 482 (occurs in Kashmir in varying numbers).

598. 2 ad. Kohat, 1760 ft., 18th February.

657. 3 ad. Hangu, 2600 ft., 8th March.

Fairly common from November till April in the wooded nullahs of the Samana in company with flocks of *M. atrigularis*. A few individuals occur in the Miranzai Valley and in the orchards of Kohat in February and March.

I met with a family-party on the 9th of August on the Safed Koh at 8000 feet.

[674.] MERULA FUSCATA. The Dusky Thrush.

Major Magrath shot a specimen of this Thrush on the 7th of April in his garden at Bannu; the skin is now in the British Museum. On seeing it I was struck by its resemblance to one which Capt. Keen shot for me at Kohat the previous winter (22nd March, 1906), about which I made the following notes at the time: "Differs from H. utrigularis in the throat and cheeks being light brown tinged with red, turning to blackish on the upper breast." Unfortunately I had no time to skin it.

Major Magrath has sent me the following extract from his pocket-book made near Kohat and dated April 6th, 1905:—"A Thrush, upper parts like M. atriguluris, abdomen and vent white; the throat I could not see; a broad buff supercilium." So it seems probable that it is also a winter visitor to Kohat. Oates records it as a rare winter visitor to North-eastern India only.

[677.] MERULA ATRIGULARIS. The Black-throated Ousel. Marshall, J. B. N. H. S. xiv. p. 603 (very common); Fulton, op. cit. xvi. p. 51 (one shot in April); Ward, op. cit. xvii. p. 482 (abundant in winter).

578. 2 ad. Kohat Pass, 3000 ft., 12th February.

These birds were abundant on the Samana and in the Miranzai Valley from October to the middle of April, but their further movements towards the plains depend a good

deal on the weather. In the severe winter of 1904-05 Major Magrath noted them at Kohat in large numbers as early as December, but in the following year, which was mild, we did not observe them till February, and then only a few.

Not met with in the Kurram Valley.

[691.] PETROPHILA CINCLORHYNCHA. The Blue-headed Rock-Thrush.

Fulton, J. B. N. H. S. xvi. p. 51 (shot one in May: Chitral); Rattray, t. c. p. 657 (nests freely round Murree); Ward, op. cit. xvii. p. 482 (plentiful in Kashmir).

A rare cold-weather visitor to the District from September till May. A few nest on the Safed Koh.

[693.] PETROPHILA CYANUS. The Western Blue Rock-Thrush.

Marshall, J. B. N. H. S. xiv. p. 603 (a fairly common summer visitor); Fulton, op. cit. xvi. p. 51 (a summer visitor, not common); Rattray, t. c. p. 657 (rare: Murree Hills); Ward, op. cit. xvii. p. 482 (occurs in summer).

A rather scarce winter visitor from October till mid-April, keeping almost entirely to low rocky hills and generally seen singly or in pairs. Breeds on the Samana and in the Kurram Valley above 5000 feet.

[694.] MONTICOLA SAXATILIS. The Rock-Thrush.

Marshall, J.B.N.H.S. xiv. p. 603 (one in January and one in April); Fulton, op. cit. xvi. p. 52 (shot two in autumn); Ward, op. cit. xvii. p. 482 (occurs in Baltistan in summer).

I have only once met with this species, and that was on the 6th of September in a stony valley near Kohat, when the autumn migration was at its height. I got a good view of it through my glasses, but unfortunately did not secure it.

[695.] TURDUS VISCIVORUS. The Missel-Thrush.

Marshall, J. B. N. H. S. xiv. p. 604, & xv. p. 355 (a resident in the hills round Quetta); Fulton, op. cit. xvi. p. 52 (resident in Chitral); Ward, op. cit. xviii. p. 482 (resident and common).

In the severe weather of January 1905, Major Magrath

observed one in an orchard at Kohat, and Mr. Donald's bird-catchers caught two on the grass-farm about the same time. None have been seen there since.

In the Kurram Valley it nests not uncommonly amongstoning the firs and Deodars of the Peiwar spur, and in the Spin Khwar Nullah from 7000 to 9000 feet.

[697.] TURDUS ILIACUS. The Redwing-Thrush.

Mr. Oates writes (Fauna Brit. Ind., Birds, ii. p. 156):—"I have not been able to examine any specimen of Redwing obtained in India, and I admit the species on the authority of Jerdon, who states that at the time he wrote it had been lately found in the Himalayas, though very rarely. But at Kohat," he adds, "as I am assured by Mr. Blyth, according to a very good observer, the late Lieut. Trotter, it is a regular winter visitant in large flocks." Major Magrath and I have looked in vain for this species for the last three winters. Possibly the flocks of Calandra Larks (Melanocorypha bimaculata) were mistaken for Redwings.

[709.] Cinclus asiaticus. The Brown Dipper.

Fulton, J. B. N. H. S. xvi. p. 52 (not uncommon from 4000 to 10,000 ft.); Ward, op. cit. xvii. p. 482 (very common in Kashmir).

Occurs along the larger streams of the Safed Koh up to 9000 feet, but is scarce. I shot a strong flying young bird on the 27th of June.

[712.] ACCENTOR RUFILATUS. The Red-sided Accentor. Accentor rufilatus Sharpe, Cat. Birds B. M. vii. p. 664 (1882).

Accentor nepalensis (part.) Oates, Faun. Brit. Ind., Birds, ii. p. 166.

Ward, J. B. N. H. S. xvii. p. 482 (occurs in Ladak and Baltistan); Perreau, op. cit. xviii. p. 186 (Chitral).

. 274. Sex? Samana, 6500 ft., 5th April.

296. Sex? Safed Koh, 12,300 ft., 1st July.

A rather rare winter visitor to the Samana from the beginning of November till April, generally found singly

about cliffs or on steep stony slopes, but never much below 6000 feet.

Nests freely on the Safed Koh above 12,000 feet. I came across the first nest on the 1st of July, 1906; it was placed under a rock on a steep slope, and contained three fresh eggs closely resembling those of our Hedge-Sparrow, but larger, averaging '88" × '57". The factor was beautifully made of grass and roots, lined with moss and a little fur. On the 28th of July I came on two more nests built in crevices in cliffs, each containing two young ones, the most noticeable feature about them being their bright red gapes. This is not the first record of the nest. Mr. Stuart Baker writes that he has an authenticated clutch of eggs in his collection from Ladakh, taken previously to mine, though he adds that his is that of A. nepalensis, as he does not recognise A. rufilatus as a good species.

[713.] ACCENTOR HIMALAYANUS. The Altai Accentor.

Ward, J. B. N. H. S. xvii. p. 482 (large flocks pass through Kashmir in spring).

132. 9 ad. Samana, 6500 ft., 7th March.

361. Sex? ,, 5th April.

A visitor to the Samana from December till the middle of April. Usually to be seen in large flocks, busily feeding amongst stones, near the Fort. Major Magrath procured the first examples of both this and the last species.

[716.] THARRHALEUS ATRIGULARIS. The Black-throated Accentor.

Marshall, J. B. N. H. S. xiv. p. 604 (shot one in January); Fulton, op. cit. xvi. p. 744 (shot two in March); Ward, op. cit. xvii. p. 482 (common in spring).

66. 2 ad. Kohat, 1760 ft., 5th January.

A common winter visitor to the District, arriving in October and leaving towards the middle of March. It closely resembles the Hedge-Sparrow in habits, but is somewhat gregarious.

[719.] THARRHALEUS JERDONI. Jerdon's Accentor. Watson, J. B. N. H. S. xv. p. 145 (small flocks occur in

January and March: Chaman); Ward, op. cit. xvii. p. 482 (breeds in Kashmir).

407. Ad. Samana, 6000 ft., 2nd December.

A winter visitor to the Samana (above 4000 feet) in small numbers; it frequents scrub-jungle, and is generally solitary; it is perhaps commoner than it appears to be, but it is such a terrible skulker one rarely gets more than a glimpse of it.

Nests fairly commonly on the Safed Koh, between 9000 and 12,000 feet, both in the forest and in Juniper-scrub. The alarm-note resembles the syllable tir-r-r.

[722.] PLOCEUS BENGALENSIS. The Black-throated Weaver-bird.

Rattray, J. B. N. H. S. xii. p. 340.

We have not met with this species in Kohat, but Col. Rattray records it from Thall, and writes as follows:—
"Appeared suddenly about the beginning of June in all the reed-patches on the river-banks; they fly about in flocks of twenty or thirty birds. On 25th June, 1898, I found a nest containing three eggs much incubated . . . ."

Mr. Donald, the Political Officer, observed a flock in the reeds near Thall in March. Probably a resident species, moving locally up and down the river.

[734.] UROLONCHA MALABARICA. The White-throated Munia.

Rattray, J. B. N. H. S. xii. p. 340 (not common); Fulton, op. cit. xvi. p. 52 (summer visitor up to 4000 ft.: Chitral); Ward, op. cit. xvii. p. 483 (occurs in Kashmir).

A resident in the plains; abundant in summer, but becoming scarce in winter.

[758.] Sporæginthus amandava. The Indian Red Munia.

Rattray, J. B. N. H. S. xii. p. 340; Ward, op. cit. xvii. p. 483 (occurs in Jammu).

Colonel Rattray met with a few flocks of this species on the jheels (marshes) and amongst high grass near Thall. Mr. Donald, the Political Officer, who passes through Thall

Sees a large floch of Red menies at Thath feeding in ballow land 5 amongst seemb on 7 13 Only 1 filly adult of an orgal then the rest (almost 20) much 5 92.

nonthly on tour, tells me he has observed flocks in the reeds there at all seasons, and in August has seen parents going about with newly-fledged families.

[740.] Coccothraustes humii. Hume's Hawfinch.

Fulton, J. B. N. H. S. xvi. p. 52 (shot 2 in May at 4000 ft.: Chitral).

50. & ad. Raisan, 2360 ft., 25th December.

85. 3 ad. Kohat, 1760 ft., 14th January.

638. 3 ad. Hangu, 2700'ft., 3rd March.

A winter visitor to the District in fair numbers from October till mid-April, being especially common in the Miranzai Valley, but rare on the Samana. It generally occurs in small parties about wild olive-groves, orchards, and gardens, feeding on berries, seeds, and the kernels of fruit-stones. The call-note, which is frequently uttered, is a shrill tee, not at all what might be expected from such a big bird.

I met with a party of five on the 5th of May at 9000 feet on the Peiwar Spur; possibly the bird nests about there.

[741.] PYCNORHAMPHUS ICTEROIDES. The Black-and-Yellow Grosbeak.

Rattray, J. B. N. H. S. xvi. p. 657 (common: Murree Hills); Ward, op. cit. xvii. p. 484 (abundant); Perreau, op. cit. xviii. p. 186 (Chitral).

671, 672. 3 3 ad. Hangu, 2700 ft., 12th March.

A common bird on the wooded slopes of the Safed Koh from 7000 to 11,000 feet, but shy, and its loud call-note,  $pr\acute{e}ter-pr\ddot{e}$ , is more often heard than the bird seen. A few occasionally descend to the Miranzai Valley in winter.

[743.] Pycnokhamphus carneipes. The White-winged Grosbeak.

Marshall, J. B. N. H. S. xiv. p. 604 (common in the hills round Quetta); Ward, op. cit. xvii. p. 486, & xviii. p. 462 (resident, but scarce).

301. 3 ad. Safed Koh, 8500 ft., 7th July.

Not nearly so common as the last species, but much bolder and less of a forest-bird, keeping more to the Juniper-scrub between 8000 and 12,000 feet. Frequently to be seen perched in some prominent position, uttering its familiar notes wil-ye-go-ame or croak-et-et. The flight is whirring and dipping like that of a Woodpecker. I found a nest containing two hard-set eggs on the 7th of July. It was beautifully made of twigs and bents, well lined with fresh strips of Juniper-bark. The eggs were of the Hawfinch type, of a French-white colour with strong reddish-brown markings, and averaged 1.18" × .72".

[754.] PROPASSER DUBIUS (Prjev.). The White-browed Rose-Finch.

Fulton, J. B. N. H. S. xvi. p. 52 (April, 9000 ft.: Chitral); Ward, op. cit. xvii. p. 484, & xviii. p. 463 (common in spring, breeding in August near source of Sind River).

288. 9. Safed Koh, 10,000 ft., 29th June.

Not uncommon on the Safed Koh in summer from 8000 to 11,000 feet. Apparently an early breeder. I came on a family very strong on the wing on the 29th of June. Its loud call pwit, pwit may be constantly heard, recalling somewhat the Paroquet's (Palæornis) screech, especially when a party wing their way overhead and all call together.

[757.] PROPASSER GRANDIS. The Red-mantled Rose-Finch.

Marshall, J. B. N. H. S. xiv. p. 604 (9000 ft. in May); Fulton, op. cit. xvi. p. 744 (fairly common in spring from 7000 to 9000 ft.); Ward, op. cit. xvii. p. 484 (Kashmir).

133. & ad. Chikarkot, 2000 ft., 2nd March.

628. 2 ad. Kohat, 1850 ft., 1st March.

649. 3 ad. Hangu, 2700 ft., 6th March.

A winter visitor in small numbers to the Miranzai and Kohat Valleys. It is usually met with singly or in small parties about wild olive and camel-thorn (Acacia machata) groves, gardens, and cultivated spots, feeding on various treeseeds, dandelion-flowers, &c. Call-note, wir. It was also observed on several occasions on the Safed Koh in July between 10,000 and 11,000 feet.

Tame and confiding in its habits.

[761.] CARPODACUS ERYTHRINUS. The Common Rose Finch.

Marshall, J. B. N. H. S. xiv. p. 604 (Quetta: common at 9000 ft. in May); Fulton, op. cit. xvi. p. 52 (common from 10,000 to 15,000 ft. in July, and at 5000 ft. in winter); Ward, op. cit. xvii. p. 484 (found everywhere).

179. d ad. Kohat, 1760 ft., 3rd April.

Major Magrath has made the following notes on this species:—"Visits the district in considerable numbers on the spring and autumn migrations, passing through on the former in March and April, and on the latter in September and October, when mostly young birds are seen. A good deal of damage is done by this species to the fruit-trees, which it attacks by eating the buds after the manner of Bull-finches. The song may be rendered thus, to-weet-tew."

In the summer I found the bird abundant in several of the valleys of the Safed Koh from 6500 to 8500 feet, where in the early morning the loud though rather monotonous song resounds on all sides.

[763.] ERYTHROSPIZA GITHAGINEA. The Desert-Finch. Perreau, J. B. N. H. S. xviii. p. 186 (one shot: Chitral). 88. 3 ad. Kohat, 1760 ft., 18th January, 1906.

This example was procured by Major Magrath out of a small flock at the foot of the hills. Subsequently I frequently met with the birds, generally feeding on stony ground, but once in young crops. They are probably resident. I came across a pair near Thall on the 19th of May which, I believe, had a nest, but I failed to find it.

[764 B.] RHODOSPIZA OBSOLETA. The Persian Desert-Bullfinch.

Watson, J. B. N. H. S. xv. p. 145 (common in gardens in August and September and again in March: Chaman, 4450 ft., near Quetta).

74. 3 ad. Kohat, 1760 ft., 8th January.

Oates (Fauna Brit. Ind., Birds, ii. p. 233) wrote that this species was likely to be found within Indian limits. Capt. Watson procured, I believe, the first authenticated examples

in India, at Chaman. Subsequently Capt. Marshall and Major Betham found it common round Quetta, and the latter discovered a number of nests (vide Rep. of Baluchistan Nat. Hist. Soc. in J. B. N. H. S. xviii. p. 521). From the 8th of January till the 1st March, 1906, a flock frequented a Mohammedan cemetery near Kohat which was much overgrown with weeds, on the seeds of which they used to feed. The males had started singing by the 1st of March; the call-note may be rendered worr.

[767.] CARDUELIS CANICEPS. The Himalayan Goldfinch. Marshall, J. B. N. H. S. xiv. p. 604 (Quetta: scarce); Fulton, op. cit. xvi. p. 53 (very common in summer up to 13,000 ft.); Ward, op. cit. xvii. p. 484 (the majority migrate through Kashmir, but a few stay to nest).

625, 626. 9 9 ads. Kohat, 1760 ft., 29th February.

A winter visitor, occurring in large flocks from November till the middle of April. Its confiding habits are taken advantage of by the local bird-catchers, who snare large numbers, retailing them at 2d. or 3d. each.

One of the commonest birds on the Samana in winter. Capt. Keen tells me that a few stayed there all through the summer, and he believes nested in the neighbourhood.

We also observed a few in the Upper Kurram Valley in spring and summer.

[768.] CALLACANTHIS BURTONI. The Red-browed Finch. Fulton, J. B. N. H. S. xvi. p. 53 (Chitral: summer visitor); Ward, op. cit. xvii. p. 484, & xviii. p. 463 (nests in Kashmir).

Not uncommon on the Safed Koh in summer between 8000 and 9000 feet. Its loud whistling call-note—chew-ēē—is very striking. It is usually uttered from high up on a bare branch.

Colonel Ward describes a nest taken from a fir-tree at 9000 feet as being very small and made of pine-needles; the eggs measured  $88'' \times 65''$ , and were of a greenish blue marked with dark brown spots at the larger end.

[771.] Metoponia pusilla. The Gold-fronted Finch. Marshall, J. B. N. H. S. xiv. p. 604 (Quetta: common on [18]

in partie

passage); Fulton, op. cit. xvi. p. 54 (resident in Chitral: nest at 12,000 ft. in July in birch-scrub); Ward, op. cit. xvii. p. 484, & xviii. p. 463 (breeds in Kashmir and Baltistan).

414. 3 ad. Samana, 5600 ft., 13th December.

A rather rare winter visitor to the Samana, occurring in small parties, and sometimes in flocks of forty or fifty, from December till April. The flocks may be easily located by their incessant twittering (which resembles the syllables bri-i).

Fairly common in summer between 8000 and 9000 feet on the Peiwar Spur.

[772.] HYPACANTHIS SPINOIDES. The Himalayan Greenfinch.

Rattray, J. B. N. H. S. xvi. p. 658 (nests fairly commonly in the Murree Hills); Ward, op. cit. xvii. p. 484 (Kashmir: common up to 8000 ft.).

409. Juv. Samana, 6500 ft., 6th December.

A few individuals are to be found in December and a key seem.

January in company with the flocks of Goldfinches on the Samana near Fort Lockhart, but the bird is not at all common.

[774.] FRINGILLA MONTIFRINGILLA. The Brambling.

Ward, J. B. N. H. S. xvii. p. 484 (passes through); Perreau, op. cit. xviii. p. 186 (one shot in Chitral).

134. 2 ad. Hangu, 2700 ft., 3rd March.

Migrates through the District in small numbers early in March, associating with big flocks of Buntings. Not observed on the autumn passage. Bakers the ment of the server

The Chaffinch. Fringilla collebs.

135. ♀ ad. Hangu, 2700 ft., 3rd March.

I came across a pair of this species in an orchard near Hangu in March 1906 and secured one specimen. following February I saw what I feel certain was another (a male), but in the excitement of the moment I missed it and never saw it again.

[775.] GYMNORHIS FLAVICOLLIS. The Yellow-throated Sparrow.

Rattray, J. B. N. H. S. xii. p. 340 (Thall: rather rare).

777. & ad. Kohat, 1760 ft., 2nd April.

A common summer visitor to the District, arriving about the 1st of April. It usually breeds in trees, but the demand for nesting-sites seems to be greater than the supply, one nest that I found being built after the fashion of that of *Passer domesticus*, and placed conspicuously in the top of a thornbush. It contained four fresh eggs. I shot the hen on her return, to make quite sure of her identity.

[776.] Passer domesticus. The House-Sparrow.

Rattray, J. B. N. H. S. xii. p. 340 (Quetta: common); Marshall, op. cit. xiv. p. 604 (very common, but in summer only); Fulton, op. cit. xvi. p. 54 (summer visitor only); Ward, op. cit. xvii. p. 485.

791. 3 ad. Kohat, 1760 ft., 16th March.

755. d ad. " " 27th March.

Major Magrath writes of this species in Kohat as follows:—"The usual pest and only too common. In April and early in May vast flocks of a migratory race of this species pass through the District in company with the next and the flocks of *Pastor roseus* already mentioned. Numbers of them are slaughtered along with the two latter. Does not winter on the Samana."

The two examples belong to a melanistic variety not uncommon round Kohat.

[778.] Passer Hispaniolensis. The Spanish Sparrow.

Watson, J. B. N. H. S. xv. p. 145 (large flocks from October till December: Chaman); Fulton, op. cit. xvi. p. 54 (passes through Chitral in April and October); Ward, op. cit. xvii. p. 485 (met with in July).

676. d ad. Thall, 2550 ft., 14th March.

I will again quote from Major Magrath's excellent notes:—" Mixed up with flocks of the last species, numbers of the present occur on the spring migration. At the height of the migration vast flocks of Sparrows in company with flocks of Pastor roseus pour into the station at sundown to roost. The combined noise of these birds before they have settled down to sleep is indescribable, and the smell

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of them becomes quite appreciable and rather offensive. Gardens, hedges, and trees are disgustingly soiled by the rain of their excreta. Shooting the birds is encouraged in Cantonments at this time, and every sepoy who can procure a gun slaughters to his heart's content. But not withstanding these drastic measures little mitigation of the nuisance is effected."

The spring migration sets in about the second week in March and continues till the middle of May, the return Regulation passage commencing early in August and continuing till October, but comparatively few examples are seen in autumn. A few stay for the winter, being fairly common then in the reed-beds and scrub round Lachi. None appear to breed in the Kurram Valley, but a large number pass through.

An example picked up by Major Magrath near Peiwar (6500 feet) had evidently been strangled by getting its head inextricably fixed between the primaries when preening itself.

[779.] Passer montanus. The Tree-Sparrow.

Rattray, J. B. N. H. S. xii. p. 340 (nests freely: Upper Kurram); Marshall, op. cit. xiv. p. 604 (a very common resident: Quetta); Fulton, op. cit. xvi. p. 54 (a common resident: Chitral); Cumming, t. c. p. 688 (abundant in April: Seistan); Ward, op. cit. xvii. p. 485.

714. d ad. Kohat, 1850 ft., 20th March.

Common in winter in the Miranzai Valley, a few individuals occurring as low as Kohat and Banda. Mr. Donald found a nest with young in Doaba Station (3000 feet) in May and says that the bird nests regularly at Shinauri (3800 feet). It possibly also does so at Thall (2550 feet), where I observed a solitary example on the 18th of May. In the Upper Kurram this species and P. domesticus are present in about equal numbers in summer, and build alongside one another in houses; but the former, as noted by Capt. Fulton in his paper on "The Birds of Chitral," get the pick of the nesting-sites before the latter's arrival, and in many cases P. domesticus has to put up with holes in cliffs.

[782.] Petronia stulta. The Rock-Sparrow.

Ward, J. B. N. H. S. xvii. p. 485 (winter visitor to Gilgit).

599. Ad. Banda, 2000 ft., 19th February.

Major Magrath first met with a flock of this species in February 1906 feeding in a stubble near Kohat. It is apparently a regular winter visitor, more common in the desolate country south of Banda than elsewhere. I found it very wary and generally feeding in young crops in flocks of fifteen or twenty.

[[785.] Montifringilla adamsi Moore. Adams's Mountain-Finch.

I came on a small flock of Mountain-Finches on the 2nd of August on a grassy knoll at an altitude of 10,000 feet in the Safed Koh. From their markings and colouring I attribute them to this species, but they were rather wild and I did not secure one, and do not therefore feel justified in entering the species on the list.]

[787.] FRINGILLAUDA SORDIDA. Stoliczka's Mountain-Finch.

Fulton, J. B. N. H. S. xvi. p. 55 (common in summer from 10,000 to 14,000 ft.); Ward, op. cit. xvii. p. 485 (breeds in Kashmir).

136. Ad. Samana, 6500 ft., 7th March.

642, 645. 3 3 ad. Samana, 6500 ft., 5th March.

643, 644. Ad. Samana, 6500 ft., 5th March.

During the intense cold in March 1906, when the snow was lying deep round Fort Lockhart, Major Magrath noticed small flocks of these birds picking up scraps round the cook-house door and shot one. They left when the snow melted. The following winter I was stationed there, but did not meet with a single specimen. In March 1908, however, I spent a couple of days there and found large flocks feeding on fallow land; curiously enough, the weather was comparatively warm then and there was no snow lying on the ground.

[789.] EMBERIZA SCHENICLUS. The Reed-Bunting.

Watson, J. B. N. H. S. xv. p. 145 (December: Chaman); Ward, op. cit. xvii. p. 485, & xviii. p. 463 (Gilgit and near Srinagar).

126. Sex? Kohat, 1760 ft., 20th February.

593. Sex? ,, ,, 17th February.

Fairly common from November to March in reed-beds and irrigated crops and on the grass-farm, or occasionally in dry stubble and scrub-jungle. Varies much in size and coloration.

[792.] EMBERIZA LEUCOCEPHALA. The Pine-Bunting.

Marshall, J. B. N. H. S. xiv. p. 604 (common in winter); Ward, op. cit. xvii. p. 485 (occurs in early spring); Perreau, op. cit. xviii. p. 186 (specimen shot: Chitral).

52. 2 ad. Raisan, 2300 ft., 25th December.

103. d ad. Kohat, 1700 ft., 5th February.

640. J ad. Hangu, 2700 ft., 3rd March.

A winter visitor, occurring in small flocks from December till March about cultivated places, often in company with E. stracheyi.

[793.] EMBERIZA STEWARTI. The White-capped Bunting. Marshall, J. B. N. H. S. xiv. p. 604 (Quetta: common in summer); Fulton, op. cit. xvi. p. 55 (Chitral: very common from 5000 to 12,000 ft.); Rattray, t. c. p. 672 (Murree Hills: common); Betham, t. c. p. 832 (nests round Quetta); Ward, op. cit. xvii. p. 485 (rare).

648. 3 ad. Darband, 2800 ft., 6th March.

725. Sad. Kohat, 1760 ft., 22nd March.

778. 3 ad. Kachai, 2700 ft., 1st April.

A common resident on the Samana and in the Kurram Valley, nesting up to 10,000 feet. In winter it is found in varying numbers throughout Kohat above 3000 feet, whereever there is a good supply of grass and other seeds. During cold spells, however, and on migration large numbers appear in the plains, but they keep chiefly to scrub-jungle, olive-groves, and rockyvalleys, avoiding cultivated spots.

[794.] EMBERIZA STRACHEYI. The Eastern Meadow-Bunting.

Watson, J. B. N. H. S. xv. p. 145 (one shot in November: Chaman); Fulton, op. cit. xvi. p. 55 (abundant from 4000 to 14,000 ft. according to season); Rattray, t. c. p. 672 (nests freely in the Murree Hills); Ward, op. cit. xvii. p. 485 (resident: Kashmir).

- 53. 9. Raisan, 2300 ft., 25th December.
- 60. 2. Kohat, 1760 ft., 2nd January.
- 124. ♀. ,, ,, 19th February.

A winter visitor to Kohat and by far our commonest Bunting from the second week in October till April, occurring at all elevations and on all sorts of ground, though more commonly about cultivated places than elsewhere. On the Samana it quite takes the place of *Passer domesticus* in winter. It nests fairly commonly on the Safed Koh up to 11,000 feet.

[795.] EMBERIZA BUCHANANI. The Grey-necked Bunting. Marshall, J. B. N. H. S. xiv. p. 604 (common in April near Quetta); Ward, op. cit. xvii. p. 485 (a rare spring migrant); Perreau, op. cit. xviii. p. 186 (Chitral).

Not an uncommon species on the spring passage from the middle of April to the middle of May. It frequents stony ground covered with patches of scrub, usually singly or in pairs. On the autumn migration I only observed it once, viz. on the 16th of September. An example was forwarded from Bannu to the British Museum by Major Magrath.

[800.] EMBERIZA LUTEOLA. The Red-headed Bunting. Marshall, J. B. N. H. S. xiv. p. 604 (a few seen in May in Chitral); Fulton, op. cit. xvi. p. 744 (a spring migrant). 534. 3. Kurram Valley, 6800 ft., 27th April.

Passes through the District and up the Kurram Valley in force from mid-April till mid-May, returning in August and September. Major Wardlaw-Ramsay found this species nesting in the Hariob Valley, which drains into the Kurram Valley just west of our limits.

[802.] EMBERIZA STRIOLATA. The Striolated Bunting. Marshall, J. B. N. H. S. xiv. p. 604 (not rare in summer: Quetta).

Rare. I met with a party of six or seven in some very desolate country between Lachi and Dhand on the 23rd of February, 1907, and shot one bird, which corresponded well with Oates's description.

[804.] CHELIDON URBICA. The House-Martin.

Rattray, J. B. N. H. S. xii. p. 340 (Thall: rare); Marshall, op. cit. xiv. p. 604 (Quetta: May); Ward, op. cit. xvii. p. 483 (breeds in Ladak).

Colonel Rattray shot a specimen at Thall on the 14th of May, 1898, out of a small flock. We have seen one or two flocks of what appeared to be this species, on spring migration, but have never shot an example.

[805.] CHELIDON KASHMIRENSIS. The Kashmir Martin.

Fulton, J. B. N. H. S. xvi. p. 55 (Chitral: common in summer); Rattray, t. c. p. 659 (common in the Galis, nesting freely in verandahs: Murree Hills); Ward, op. cit. xvii. p. 483 (breeds in Kashmir).

Fairly numerous in summer along the Safed Koh Range, nesting either singly or in small colonies under overhanging crags from 6000 to 8000 feet. The nest resembles that of the last species, but varies considerably in size and shape according to the situation.

[808.] Cotile RIPARIA. The Sand-Martin.

Fulton, J. B. N. H. S. xvi. p. 55 (Chitral: common in summer); Ward, op. cit. xvii. p. 483 (Kashmir).

The large Sand-Martin which migrates through Kohat in April and May must, I think, be of this species, though I have not shot an example. Major Magrath shot one out of a large flock on the autumn passage at Bannu, just south of our limits.

[808 A.] Cotile diluta. The Pale Sand-Martin. Wyatt, Monogr. Hirundinidæ, p. 63.

437. ♀ ad. Khushalgarh, 1200 ft., 16th February.

679. Ad. Thall, 2550 ft., 14th March.

This species is distinguished from C. riparia by its paler colour, smaller size, and less sharply defined pectoral band.

It is probably widely distributed in India, but, owing to its resemblance to the last-named species, has been overlooked. In Kohat it is common enough and resident, large colonies nesting in the banks of the Indus and Kurram Rivers in February and March. The specimen, shot at Thall in March, was one of a breeding-colony. Major Magrath also found a large colony in March, nesting in the banks of the Kurram River (south of our limits), and secured two typical examples.

Besides these there are five specimens in the British Museum, viz. a doubtful one obtained by Jerdon at Madras, two from Afghanistan, and two from Central Asia.

[809.] Cotile sinensis. A resident species in the District.

[810.] PTYONOPROGNE RUPESTRIS. The Crag-Martin.

Marshall, J. B. N. H. S. xiv. p. 604 (nests freely round Quetta); Fulton, op. cit. xvi. p. 55 (Chitral: summer visitor, found up to 13,000 ft.); Rattray, t. c. p. 659 (nests in the Murree Hills); Ward, op. cit. xvii. p. 483 (nests in Ladak).

277. Ad. Samana, 6500 ft., 12th April. A winter visitor from October till April. Probably resident

on the Samana. Fair numbers nest in the precipices of the Safed Koh.

[Ptyonoprogne obsoleta.—Major Magrath shot an example out of a flock at Bannu in December 1907.]
[813.] HIRUNDO RUSTICA. The Swallow.

Rattray, J. B. N. H. S. xii. p. 341 (Murree Hills: a common resident); Marshall, op. cit. xiv. p. 605 (abundant in summer: Quetta); Cumming, op. cit. xvi. p. 688 (Seistan, 1700 ft.: summer visitor); Ward, op. cit. xvii. p. 483 (summer visitor: Kashmir); Perreau, op. cit. xviii. p. 186 (Chitral).

A fairly common resident in the Miranzai Valley, nesting freely at Thall (2550 ft.) and at Doaba, but becoming scarce

[26]

in winter and temporarily disappearing in severe weather. A summer visitor to the Kurram Valley in small numbers.

Major Magrath has found this highly migratory species to be resident even in the hot plains of Bannu (1200 ft.) (vide 'Field,' March 28th, 1908).

[818.] HIRUNDO SMITHI. The Wire-tailed Swallow.

Rattray, J. B. N. H. S. xii. p. 341 (common); Ward, op. cit. xvii. p. 483 (summer visitor: Kashmir).

A summer visitor and abundant from April till October, the first birds arriving in the middle of March. Georgia Atrackier

Occurs in the Kurram Valley up to 6000 feet, but only in small numbers.

[822.] HIRUNDO NEPALENSIS. Hodgson's Striated Swallow.

Marshall, J. B. N. H. S. xiv. p. 605 (summer visitor: Quetta); Rattray, op. cit. xvi. p. 659 (nests freely in the Galis).

Numbers pass up the Miranzai Valley in the first half of April. I shot an example at Hangu on the 9th, and found a retort-shaped nest under a bridge close by, though whether it belonged to this species or the next I did not discover, as I was only passing through.

[823.] HIRUNDO ERYTHROPYGIA. Sykes's Striated Sandham U. Swallow.

Rattray, J. B. N. H. S. xii. p. 341 (great numbers passed the harmough Thall in the middle of May).

A small party of these Swallows arrived on the Samana towards the end of March 1907. On the 4th of April I shot one, the beak and part of the forehead of which were plastered with mud; it had evidently started nesting-operations.

[826.] Motacilla alba. The White Wagtail.

Marshall, J. B. N. H. S. xiv. p. 605 (Quetta: common in winter); Fulton, op. cit. xvi. p. 55 (Chitral: resident from 4000 to 10,000 ft., according to season); Ward, op. cit. xvii. p. 723 (rare in Kashmir).

Large numbers arrive in Kohat early in September, and a few stay though the winter; the majority pass on and return about the middle of February, again to disappear towards the middle of May.

[829.] MOTACILLA PERSONATA. The Masked Wagtail.

Watson, J. B. N. H. S. xv. p. 145 (fairly common in winter: Chaman, 4450 ft.); Fulton, op. cit. xvi. p. 56 (Chitral: resident from 6000 to 12,000 ft., according to season); Cumming, t. c. p. 688 (Seistan: April); Ward, op. cit. xvii. p. 723 (breeds from 6000 to 8000 ft.).

First arrivals at Kohat noted in the last week of August. Many individuals remain through the winter. This species leaves about the same time as the preceding. Nests commonly along the Kurram River from Thall (2550 ft.) upwards.

[831.] MOTACILLA MADERASPATENSIS. The Large Pied Wagtail.

Rattray, J. B. N. H. S. xii. p. 341 (Thall: common, many stay to nest); Ward, op. cit. xvii. p. 723 (Kashmir).

A resident in Kohat, but scarce. A few pairs were noted along the Siau Nullah and the Kohat Toi.

[832.] MOTACILLA MELANOPE. The Grey Wagtail.

Rattray, J. B. N. H. S. xii. p. 341 (Thall: rare); Marshall, op. cit. xiv. p. 605 (Quetta: a few seen at 7000 ft. in May); Fulton, op. cit. xvi. p. 56 (Chitral: March); Cumming, t. c. p. 688 (Seistan: very common); Ward, op. cit. xvii. p. 723 (common, and breeds in Kashmir).

A familiar cold-weather visitor, arriving in the plains towards the end of August. Nests freely along the streams of the Safed Koh from 6000 to 8000 feet.

[833.] MOTACILLA BOREALIS. The Grey-headed Wagtail. Marshall, J. B. N. H. S. xiv. p. 605 (Quetta: a few seen in April); Cumming, op. cit. xvi. p. 688 (common: Seistan): Ward, op. cit. xvii. p. 723 (Kashmir).

760. d ad. Kohat, 1760 ft., 29th March.

771. 3. ,, 31st March.

782. d ad. ,, ,, 3rd April.

Occurs on passage from March till mid-May, but not so commonly as the next species.

[835.] MOTACILLA BEEMA. The Indian Blue-headed Wagtail.

Fulton, J. B. N. H. S. xvi. p. 56 (common in April); Ward, op. cit. xvii. p. 723 (breeds in Ladak).

770. & ad. Kohat, 1760 ft., 31st March.

783. d ad. ,, ,, 3rd April.

68. d ad. " " 17th April.

Passes through Kohat in fair numbers from the second week in March till nearly the end of May, being very common in April; the return passage lasts from August and September till well into October.

No. 68. Major Magrath shot this specimen, and saw others on his way through Kohat in April 1908. In the Bannu district he has found the bird fairly common.

[836.] Motacilla feldeggi. The Black-headed Wagtail. Marshall, J. B. N. H. S. xiv. p. 605 (Quetta: fairly common in April); Cumming, op. cit. xvi. p. 688 (common in Seistan in April); Ward, op. cit. xvii. p. 723 (migrates through Kashmir).

768. Jad. Kohat, 1760 ft., 31st March.

769. Juv. ,, ,, ,,

Small numbers appear towards the end of March and early in April, in company with the last species.

[837.] MOTACILLA CITREOLA. The Yellow-headed Wag-tail.

Ward, J. B. N. H. S. xvii. p. 723 (common on migration: a few nest in Kashmir).

727. 3 ad. Kohat, 1760 ft., 23rd March.

Occurs fairly commonly from February till nearly the end of May. This species and the next are more usually to be found about marshes than the preceding, and commonly roost in reed-beds, when available. None were seen in autumn.

[838.] MOTACILLA CITREOLOIDES. Hodgson's Yellow-headed Wagtail.

Fulton, J. B. N. H. S. xvi. p. 56 (Chitral: saw a pair at

10,000 ft. in July); Ward, op. cit. xvii. p. 723 (breeds in Kashmir).

775. S. Kohat, 1760 ft., 2nd April.

The same may be said of this species as of the last, but it is rather more common.

It may be of interest to add that this year (July 1908) I found this species nesting freely from 8800 to 13,000 feet in the Kaghan Valley (Hazara, N.W. Frontier), north of our limits.

Oates says of *M. citreola*, "the young probably assume the adult plumage at the first spring moult"; and of the present species, "the young do not appear to differ in any respect from those of *M. citreola*." This, however, appears not to be the case, for some individuals certainly breed in the immature plumage. A pair consisting of an adult male and an immature female had made a nest at 12,000 feet, under a stone, and this contained two young birds and one abnormally small egg measuring '72 × '50 inch. In several other instances, too, I observed birds in the pale immature garb with food in the bill, which, from their behaviour, had evidently broods hard by.

[840.] Anthus Trivialis. The Tree-Pipit.

Marshall, J. B. N. H. S. xiv. p. 605 (common near Quetta in winter); Fulton, op. cit. xvi. p. 56 (a few resident between 5000 and 10,000 feet); Betham, t. c. p. 832 (found two nests near Quetta in June).

712. 9 ad. Kohat, 1760 ft., 19th March.

Large numbers pass through Kohat and the Kurram Valley from mid-March till mid-May, returning in August, September, and October, but halting in comparatively few cases.

[840 A.] Anthus pratensis. The Meadow-Pipit.

708. 9 ad. Kohat, 1760 ft., 19th March.

Major Magrath was the first to meet with this species in N.W. India, and in January and February 1908 secured four examples at Bannu. I only met with one at Kohat, but possibly it has been overlooked, owing to its resemblance to A. trivialis.

typical form, viz. two males 63 and 68 mm., four females 63 to 65 mm.

Type in the Collection of H. F. Witherby: 3. No. 767. 31. i. 11. Yashwanen, near Nanking, China. H. Lynes coll.

Obs. Captain Lynes collected five examples in winter (December to March) on the Yangtze, and these agree precisely with a specimen from Amur Bai (3. iv. 94) in the Natural History Museum. I have compared them with eighteen specimens of the Japanese form, including the type. E. yessoënsis was described by Swinhoe from a specimen collected by Blakiston in Japan, and the bird is now known to breed there (C. Ingram, 'Ibis,' 1908, p. 155). Probably all the specimens which winter in China belong to the new form described above, which, no doubt, breeds somewhere in Eastern Siberia, and probably in the basin of the Amur.

Dr. C. B. TICEHURST exhibited a series of female examples of *Motacilla citreoloides* (Hodgs.) on behalf of Capt. C. H. T. Whitehead, who had collected them in the Kaghan Valley, N.W.F. India, and made the following remarks:—

"In the 'Fauna of British India,' vol. ii. pp. 298-9, Oates states that it is pretty certain that the sexes of this Wagtail are alike and that the young assume adult plumage at the first spring-moult. Capt. Whitehead, in his paper on the birds of Kohat and Kurram ('Ibis,' 1909, pp. 242 & 621), indicated that this species takes at least two years to attain the fully adult plumage, though it breeds in its first summer-dress; but he did not realise, until he obtained the series which I exhibit here to-night, that the female never resembles the adult male in plumage. Capt. Whitehead was examined many pairs of breeding birds in confirmation of this statement. The females exhibited were all shot at the nest, and in every instance they were paired with a fully adult male. The specimens shown are easily divisible into two groups: those with the forehead, supercilium, and the whole of the underparts bright canary-colour, which, until further proof comes to hand, we may assume to be

fully adult females; and those in which these parts are yellowish-white, which we may assume to be females in their first year. Capt. Whitehead has also found the male breeding in its first summer-dress, which he has described ('Ibis,' 1909, p. 621) as being dark grey above with some black feathers, and with the head and under-surface deep yellow, sullied on the crown and flanks. A specimen in this plumage is in the Natural History Museum."

Mr. Geoffrey Schwann exhibited an example of an abnormally-coloured female Rook, with much of the plumage of the back and wings greyish. It had been shot by Mr. P. R. Croft at St. Margaret's, Ware, Hertfordshire, on the 12th of March, 1913, and had been noticed when a young bird in 1912. A bird with similar light-coloured plumage had been observed three years ago in the same locality.

Mr. OGILVIE-GRANT said that he had recently received a Rook with most of the plumage rusty-brown and in very worn condition. The specimen had been shot at Charterhall, Duns, Berwickshire, and forwarded to the Natural History Museum by Colonel A. R. Trotter, who said that other similar specimens had been met with in the neighbourhood.

Major H. J. Kelsall, R.A., exhibited an abnormal specimen of the Standard-winged Nightjar, *Macrodipteryx* macrodipterus (Lath.), in which the 8th as well as the 9th primary quill in the right wing was elongated. The left wing was normal. All three elongated pinions were of the same length, viz. 395 mm.

The specimen had been shot by Capt. H. S. Perrott, R.G.A., near Waterloo (about 20 miles S.S.E. of Freetown), Sierra Leone, on the 11th of February, 1912, and had been given to Major Kelsall shortly after for preservation. The specimen was now in the Collection of the Natural History Museum.

Mr. OGILVIE-GRANT wished to call attention to the fact that, when describing the birds from Henderson Island,

recently presented to the Natural History Museum by Messrs. Tait and Jamieson (cf. Bull. B. O. C. xxxi. pp. 58-61), he had unfortunately overlooked the fact that a paper describing three new species from that island had already been published by Mr. A. J. North in the 'Records of the Australian Museum,' vii. pp. 29-31 (1908). He was indebted to Mr. Charles W. Richmond, of the United States National Museum, Washington, for very kindly calling his attention to this paper. The name of the new species of Parroquet, Calliptilus (?) stepheni North, had, however, been accidently omitted from the systematic portion of the 'Zoological Record' for 1908; and it had also been overlooked by Count Salvadori in Wytsman's 'Genera Avium,' Family Loriidæ (1910). Thus the description of this species had been lost sight of. The Acrocephalus, which was the next bird examined, had not been previously recorded, so afforded no reference to Mr. North's paper. The Rail and the Pigeon had both been described as new species by Mr. North, and were duly mentioned in the 'Record' for 1908, but had been missed.

Thus Vini hendersoni became a synonym of Calliptilus (?) stepheni North, and the species should stand as

VINI STEPHENI (North).

Porzana murrayi became a synonym of

PORZANA ATRA North.

The Fruit-Pigeon described as a new species by Mr. North under the name of *Ptilopus insularis* was almost certainly synonymous with *P. coralensis* Peale, but this could not be definitely decided until the birds from Henderson Island had been compared with typical specimens of *P. coralensis*, which Mr. Richmond had kindly offered to forward for comparison.

Mr. WITHERBY wished to add the following note:—At the meeting held in February 1912 he had exhibited some Nuthatches from Spain and Portugal, and had shown that

they were separable as a local race (Bull. B. O. C. xxix. p. 75). Mr. Witherby had referred to this form as S. minor Brehm, Allg. D. Naturh. Zeitung, 1857, p. 447, but Dr. C. E. Hellmayr had recently very kindly pointed out to him that this name was preoccupied by S. minor Bechstein in Latham's Allg. Übersicht der Vög. i. part 2, 1793, p. 533 footnote, which was a synonym for the North-American S. pusilla. It was therefore necessary to give a new name to the race of Nuthatch inhabiting Spain and Portugal, and Mr. Witherby proposed to call it

SITTA EUROPÆA HISPANIENSIS, nom. n.

The next Meeting of the Club will be held on Wednesday, the 14th of May, 1913, at PAGANI'S RESTAURANT, 42-48 Great Portland Street, W.; the Dinner at 7 p.m. Members of the Club intending to dine are requested to inform Mr. Witherby, at 326 High Holborn, W.C.

[N.B.—Members who intend to make any communication at the next Meeting of the Club are requested to give notice beforehand to the Editor, also to supply him with a written account of anything intended for publication.]

## (Signed)

P. L. SCLATER, W. R. OGILVIE-GRANT, H. F. WITHERBY, Chairman. Editor. Sec. & Treas.

[844.] Anthus similis. The Brown Rock-Pipit.

Marshall, J. B. N. H. S. xiv. p. 605 (summer visitor); Ward, op. cit. xvii. p. 723 (occurs: Kashmir); Perreau, op. cit. xviii. p. 186 (specimen shot: Chitral).

566. 3. Kohat, 1760 ft., 6th February,

8th February. 569. d. 19

736. & ad. 24th March. ,,

743. 3 ad. , 27th March.

A common resident in the District, nesting on the Samana in summer, and occurring from August till April along the foot of the hills and on stony ground generally. From January till the end of March it is also found commonly about cultivated lands. It perches readily in trees. It is held varies a good deal in size and colour. In February 1908 there were flocks of peculiarly dusky individuals on the grass-grants in farm. Nos. 566 and 569 are examples of this dark-coloured 23 Rock on 8 & Kolat Kolat Yuly Richard's Pipit. 12 Named Klal Hill. Pipit.

[845.] ANTHUS RICHARDI. Richard's Pipit.

61. 2 ad. Kohat, 1760 ft., 4th January.

582. 3 ad. 14th February.

A rare winter visitor, these being the only examples met with. Both were procured on the grass-farm.

[847.] Anthus Rufulus. The Indian Pipit.

Rattray, J. B. N. H. S. xii. p. 341 (Thall: common in winter); Ward, op. cit. xvii. p. 723.

Kohat, 1760 ft., 11th March. 140. 9 ad.

145. ? ad. 15th March. ,,

17th March. 151. 3 ad.

A summer visitor, arriving early in March and breeding in numbers on the grass-farm and other suitable places. Colonel Rattray must, I think, have mistaken A. campestris (which I have shot at Thall) for this species.

[848.] Anthus campestris. The Tawny Pipit.

Marshall, J. B. N. H. S. xiv. p. 605 (Quetta: winter visitor).

69. ♀ ad. Kohat, 1760 ft., 7th January.

13th March. 142. 3 ad. "

485. 9 ad. Thall, 2500 ft., 14th April.

492. d ad. ,, ,, l6th April.

Fairly numerous from the middle of September till the middle of April, chiefly frequenting dry open country, and not found much about cultivated ground. Not observed on the Samana or in the Kurram Valley.

[850.] Anthus Rosaceus. Hodgson's Pipit.

Ward, J. B. N. H. S. xvii. p. 723 (breeds freely in Kashmir).

298. J. Safed Koh, 12,000 ft., 2nd July.

486. d ad. Thall, 2550 ft., 14th April.

586. Juv. Kohat, 1850 ft., 15th February.

Flocks composed chiefly of immature birds visit the District from January till mid-April, frequenting, for the most part, marshes and irrigated land. This species nests freely on the Safed Koh, from 11,000 to 13,000 feet. I found two nests in June, both under stones, perfectly concealed, and well and solidly constructed of roots and grass. In one case I surprised the bird excavating the hollow under

a stone for the nest. Not noted in autumn.

ANTHUS SPIPOLETTA. The Water-Pipit.

Watson, J. B. N. H. S. xv. p. 145 (Chaman: common in winter); Ward, op. cit. xvii., p. 723 (occurs).

368. juv. Kohat, 1760 ft., 7th February.

622. 3 ad. ,, ,, 29th February.

632. 3 ad. ,, ,, lst March.

636. d ad. ,, ,, 2nd March.

646, 647. 3 9 ad. Samana, 6500 ft., 5th March.

A winter visitor, and by far our commonest Pipit from early in October till about the 18th of March. It moults into the beautiful summer plumage before leaving. A few individuals are to be found on the dry rocky summit of the Samana all the winter. No. 568 is a dingy specimen.

ANTHUS COUTELLII. The Persian Water-Pipit.

Anthus coulettii Savigny; Hartert, Vög. pal. Faun. p. 281.

387. 2. Samana, 6500 ft., 28th October, 1906.

[32]

Bill blackish, lower mandible yellowish; iris dark brown; tarsus dark yellowish brown.

Wing 3.4 in.; tail 2.55 in.; bill .75 in.; hind claw .48 in. 646, 647. 3 ? ad. Samana, 6500 ft., 5th March.

No. 387 was shot out of a flock which was feeding in a very dry spot amongst stupted scrub.

Dr. Hartert says that the range of this bird has not yet been fully worked out, but that it is found in winter in Egypt and Palestine, as well as in Eastern Persia and Persian Baluchistan; also that it breeds in the highlands of Persia and possibly in Lebanon and the Caucasus.

[852.] Anthus Japonicus. The Eastern Water-Pipit.

84. 3. Kohat, 1760 ft., 14th January.

155. d. .. .. 22nd March.

184. J. ,, ,, 4th April.

581. ? sex. , , 14th February.

A somewhat scarce winter visitor, occurring singly with the flocks of A. spipoletta or in small parties by itself.

[853.] OREOCORYS SYLVANUS. The Upland Pipit.

Rattray, J. B. N. H. S. xvi. p. 654 (common in the Murree Hills); Ward, op. cit. xvii. p. 723.

398. 3 ad. Samana, 4500 ft., 14th November.

A resident on the Samana from 4000 feet upwards, but not common. Capt. Keen found several nests in July.

[859.] MELANOCORYPHA BIMACULATA. The Eastern Calandra Lark.

Fulton, J. B. N. H. S. xvi. p. 56 (plentiful in Chitral at the end of February and beginning of March); Ward, op. cit. xvii. p. 724 (one shot in December).

Large flocks visit Kohat in February and early in March.

[860.] ALAUDA ARVENSIS. The Sky-Lark.

Marshall, J. B. N. H. S. xiv. p. 605 (common round Quetta in winter, a few stay for the summer); Fulton, op. cit. xvi. p. 56 (a resident between 5000 and 11,000 feet); Ward, op. cit. xvii. p. 724 (a resident).

577. 3 ad. Jamrud, 2000 ft., 11th February. ser. ix.—vol. iii.

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615. 9 ad. Lachi, 1540 ft., 26th February.

704. 9 ad. Kohat, 1760 ft., 18th March.

737. 2 ad. ,, ,, 25th March.

A winter visitor, abundant from November till March. By the end of the latter month it is entirely replaced by the next species, which arrives in the second week in March.

[861.] ALAUDA GULGULA. The Indian Sky-Lark.

Ward, J. B. N. H. S. xvii. p. 724 (reported from the Jammu plains).

695. d. Lachi, 1540 ft., 17th March.

728. 3. Kohat, 1760 ft., 23rd March.

752. d. , , 27th March.

A summer visitor, nesting freely on the grass-farm. It can be distinguished from A. arvensis by the harsh note uttered on rising and by the song, which is not so rich as that of the latter.

862. CALANDRELLA BRACHYDACTYLA. The Short-toed Lark.

Marshall, J.B. N. H. S. xiv. p. 605 (abundant from winter till May 1st); Fulton, op. cit. xvi. p. 56 (Chitral: many pass through in October).

613. 9. Lachi, 1540 ft., 26th February.

621. J. Kohat, 1760 ft., 29th February.

730,731. 9 8. Kohat, 1760 ft., 23rd March.

Occurs commonly in Kohat and the Kurram Valley from the last week in February till the middle of April (last seen on the 19th), and returns in small numbers in September.

[864.] Calandrella tibetana.—Major Magrath shot an example of this species at Bannu in December 1907. It has now been found to occur in Kohat; fairly common in spring.

[869.] MIRAFRA CANTILLANS. The Singing Bush-Lark.

266. 3 ad. Kohat, 1760 ft., 19th May.

Fairly numerous from the middle of May till September about grassy and bush-covered plains. Not observed in the Kurram Valley, though fairly common at Thall at the entrance. A most energetic songster; many of its notes seem to be borrowed from *Argya caudata*.

[874.] GALERITA CRISTATA. The Crested Lark.

Rattray, J. B. N. H. S. xii. p. 341 (very common at Thall); Marshall, op. cit. xiv. p. 605 (Quetta: a very common resident); Cumming, op. cit. xvii. p. 689 (Seistan: abundant); Perreau, op. cit. xviii. p. 186 (Chitral).

- 610. Q. Lachi, 1540 ft., 26th February.
- 687. 2. Kohat, 1760 ft., 16th March.
- 723. ♀. .. .. 21st March.
- 754. 3. , 27th March.

This species is abundant everywhere and resident up to 3000 feet. In the Kurram Valley it occurs up to 7000 feet in summer. It is a great mimic, as Major Magrath has noted, its rendering of the notes of Sarcogrammus indicus and Totanus calidris being particularly good.

[878.] Ammomanes phænicuroïdes. The Desert Finch-Lark.

Rattray, J. B. N. H. S. xii. p. 341 (Thall: rather rare); Marshall, op. cit. xiv. p. 605 (Quetta: common in the low hills); Cumming, op. cit. xvi. p. 689 (fairly common in Seistan); Ward, op. cit. xvii. p. 724 (Kashmir).

- 609. d. Lachi, 1540 ft., 25th February.
- 761. 9. Kohat, 1850 ft., 30th March.

Resident and abundant on stony wastes and hill-sides up to 3000 feet.

The song reminds me somewhat of that of Anthus similis, being often uttered on the wing.

[879.] Pyrrhulauda Grisea. The Ashy-crowned Finch-Lark.

196. 2 ad. Kohat, 1760 ft., 8th April.

The above example was one of the only pair met with. The male, a fine black-breasted bird, I failed to secure.

[895.] ARACHNECHTHEA ASIATICA. The Purple Sun-bird. Rattray, J. B. N. H. S. xii. p. 341 (Thall: common in summer).

A common summer visitor, arriving in the middle of March and disappearing towards the middle of September. It occurs up to 5000 feet on the Samana.

4 5500

[946.] Gecinus squamatus. The Western Himalayan Scaly-bellied Green Woodpecker.

Fulton, J. B. N. H. S. xvi. p. 57 (common in Chitral from 4000 to 8000 ft.); Rattray, t. c. p. 659 (common in the Murree Hills); Ward, op. cit. xvii. p. 724 (widely distributed in Kashmir).

565. ♀ ad. Kohat, 1760 ft., 6th February.

659. 9 ad. Hangu, 2500 ft., 8th March.

713. 3 ad. Kohat, 1850 ft., 20th March.

A cold-weather visitor to the District from August to the end of March; fairly common in the Miranzai Valley, but scarce near Kohat. A resident on the Samana. Occurs sparingly in the Kurram Valley up to 9000 feet. I have several times seen this Woodpecker climbing up a cliff as if it were a tree.

[961.] Dendrocopus Himalayensis. The Western Himalayan Pied Woodpecker.

Fulton, J. B. N. H. S. xvi. p. 57 (Chitral: common from 5000 to 11,000 ft.); Rattray, t. c. p. 660 (Murree Hills: abundant); Ward, op. cit. xvii. p. 724 (common).

Common on the Samana from 4500 feet upwards, and on the Safed Koh up to tree-limit.

[963.] DENDROCOPUS SINDIANUS. The Sind Pied Woodpecker.

Rattray, J. B. N. H. S. xii. p. 341 (Thall: not rare); Marshall, op. cit. xv. p. 351 (Quetta: common near Khojak).

655, 656. 3 2 ad. Hangu, 2500 ft., 8th March.

A fairly common resident throughout the District up to 3000 feet. Nesting commences early in April, a mulberry-tree being usually selected for the excavation. I have often observed this species in scrub-jungle some distance from trees.

In this and the last species the colouring of the lower parts varies from white to a rich reddish buff, the white parts of the upper surface being also frequently tinged with fulvous. No. 656 represents this ruddy variety.

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[969.] DENDROCOPUS AURICEPS. The Brown-fronted Pied Woodpecker.

Fulton, J. B. N. H. S. xvi. p. 57 (fairly common in Chitral from 4000 to 10,000 ft.); Rattray, t. c. p. 660 (breeds in the Murree Hills up to 7500 ft.); Ward, op. cit. xvii. p. 725 (rare in Kashmir).

580. 9. Kohat, 1760 ft., 13th February.

654. 9. Hangu, 2500 ft., 8th March.

716. 3 ad. Kohat, 1760 ft., 20th March.

A common winter visitor to the District, including the Samana, from October till April (last seen on the 9th).

[972. LIOPICUS MAHRATTENSIS (Lath.) is fairly common both at Rawal Pindi and Peshawar (an example from the latter place is in the British Museum), but has not been observed in Kohat as yet.]

[1003.] IYNX TORQUILLA. The Wryneck.

Marshall, J. B. N. H. S. xv. p. 351 (Quetta: occurs regularly in April); Fulton, op. cit. xvi. p. 57 (Chitral: one obtained in May); Ward, op. cit. xvii. p. 725 (nests fairly commonly in Kashmir).



80. & ad. Kohat, 1760 ft., 11th January.

69. ? ad. ,, ,, 18th April.

Not common. The only other examples seen were observed on the 23rd of April near Peiwar, 7000 feet (Kurram Valley), with the exception of one on the 29th near Kohat.

[986. Brachypternus aurantius (Linn.).—Major Magrath observed one individual at Bannu in October 1908. It is common at Lahore.]

[1022.] Coracias indica. The Indian Roller.

Ward, J. B. N. H. S. xvii. p. 724 (rare; occurs in the outer ranges).

Resident, but partially migratory, being very common in summer and comparatively scarce in winter.

[1024.] Coracias Garrula. The European Roller.

Rattray, J. B. N. H. S. xii. p. 341 (Thall: common in summer); Marshall, op. cit. xv. p. 351 (Quetta: common in

May and early June); Fulton, op. cit. xvi. p. 57 (passing through Chitral early in May); Cumming, t. c. p. 689 (passing through Seistan in April); Ward, op. cit. xvii. p. 725 (summer visitor from May till November).

4513/

A fairly common summer visitor to the District and the Kurram Valley, up to 3000 feet, from early in May till September, being particularly common round Thall, where it nests in colonies in the conglomerate cliffs.

The Common Indian Bee-[1026.] MEROPS VIRIDIS. eater.

Rattray, J. B. N. H. S. xii. p. 342 (not common at Thall); Ward, op. cit. xvii. p. 725.

756. 3 ad. Kohat, 1760 ft., 28th March.

Abundant in summer, the majority arriving about the 20th of March and leaving in the middle of October. In a mild year odd birds and even parties of five or six are seen

Transport of New Princes The Blue-tailed Bee-eat [1027.] MEROPS PHILIPPINUS. The Blue-tailed Bee-eater.

Rattray, J. B. N. H. S. xii. p. 342 (Thall: June).

We have not met with this Bee-eater in Kohat. Rattray, however, observed a pair at Thall in June.

Major Magrath has found it not uncommon in Bannu in early autumn and has procured an example. It is also very common round Rawal Pindi.

[1028.] MEROPS PERSICUS. The Blue-cheeked Bee-eater. Major Magrath saw what he took to be this species in hawai hallarge numbers between Basal and the Indus, just outside our limits, in July 1907, and also observed an individual at Khushalgarh just inside. Another which he obtained in <sup>15</sup>Bannu, where the bird is fairly common in summer, is now in the National Collection. much more of a person tem afunda barater rate o more variety

[1029.] Merops aplaster. The European Bee-eater.

Marshall, J. B. N. H. S. xv. p. 351 (Quetta: common summer visitor); Fulton, op. cit. xvi. p. 57 (a few breed in Chitral); Betham, t. c. p. 749 (nests freely round Quetta); Ward, op. cit. xvii. p. 725 (abundant in summer).

[38]

Passes through Kohat in April and the beginning of May, returning in August and September. Possibly a few pairs nest round Thall; several were certainly there up to the time that I left (May 20th), and Capt. Keen informs me that he saw some there in July. This species breeds freely in the Kurram Valley from 3000 to 7000 feet. Towards the end of July, when nesting-operations were over, flocks of from ten to forty used to fly up the valleys of the Safed Koh to tree-limit (12,000 feet) every morning, and return at dusk.

[1033.] CERYLE VARIA. The Indian Pied Kingfisher.

Rattray, J. B. N. H. S. xii. p. 342 (common at Thall: nests in March); Ward, op. cit. xvii. p. 725 (very common up to 6000 ft.).

A resident, but not very common, though found along most of the streams of the District, and in the Kurram Valley at least up to Dandar (4700 feet).

[1035.] ALCEDO ISPIDA. The Common Kingfisher.

Rattray, J. B. N. H. S. xii. p. 342 (Thall: an uncommon resident); Marshall, op. cit. xv. p. 351 (Quetta: common in spring); Cumming, op. cit. xvi. p. 689 (a common resident in Seistan); Ward, op. cit. xvii. p. 725 (abundant in Kashmir up to 6000 ft.).

The Kingfisher is common in cold weather, even about cantonments, and, never being molested, shews little fear of man.

It nests fairly commonly in the Miranzai and Kurram Valleys, but only a few pairs stay to breed in the plains around Kohat. It may often be seen hovering over water after the manner of *Ceryle varia*, if no perch is available.

[1044.] HALCYON SMYRNENSIS. The White-breasted King-fisher.

Rattray, J. B. N. H. S. xii. p. 342 (Thall: common); Ward, op. cit. xvii. p. 725 (occurs in Poonch).

Abundant in Kohat and up to Sadda (3500 feet) in the Kurram Valley. A permanent resident. This bird picks up

lizards and insects from the ground like a Shrike. In Kohat its favourite food consists of freshwater crabs. Major Magrath has also observed it taking locusts and dragon-flies on the wing.

[1066.] UPUPA EPOPS. The European Hoopoe.

Marshall, J. B. N. H. S. xv. p. 351 (Quetta: summer visitor); Fulton, op. cit. xvi. p. 58 (Chitral: summer visitor, occurring up to 14,000 ft.); Cumming, t. c. p. 690; Ward, op. cit. xvii. p. 726 (common in summer, rare in winter).

Abundant in Kohat in the cold weather, but only a few individuals stay to nest. Occurs in the Kurram Valley up to 8000 ft., but is scarce. Called in Calaman 23 3

[1068.] CYPSELUS MELBA. The Alpine Swift.

Rattray, J. B. N. H. S. xii. p. 342 (Thall: May); Marshall, op. cit. xv. p. 351 (Quetta: summer visitor); Fulton, op. cit. xvi. p. 58 (common in Chitral in summer from 5000 to 16,000 ft.); Rattray, t. c. p. 660 (found two nests: Murree Hills); Ward, op. cit. xvii. p. 726.

Flocks of this fine Swift, often accompanied by the next species, pass through Kohat at intervals from March till the end of May, returning in August and September. They merely pass over and do not stay.

[1069.] Cypselus apus. The Common Swift.

Rattray, J. B. N. H. S. xii. p. 342 (Thall: common in May; shot two); Marshall, op. cit. xv. p. 351 (Quetta: common in summer; found nests in caves); Fulton, op. cit. xvi. p. 58 (Chitral: common in summer up to 14,000 ft.); Ward, op. cit. xvii. p. 726 (summer visitor; nests in cliffs).

Occurs like the last species and often in company with it. Breeds in small numbers in the cliffs of the Safed Koh, and is found up to the summit.

[1073.] Cypselus affinis. The Common Indian Swift. Rattray, J. B. N. H. S. xii. p. 342 (rare at Thall); Marshall, op. cit. xv. p. 351 (common in summer); Ward, op. cit. xvii. p. 726.

Abundant in the District from early in March till [40]

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November, and appearing at intervals throughout the cold weather if the season is mild.

[1089.] CAPRIMULOUS MAHRATTENSIS. Sykes's Nightjar. Rattray, J. B. N. H. S. xii. p. 342 (Thall); Cumming, op. cit. xvi. p. 690 (abundant in Seistan from April till September).

Nightjars are not common in the neighbourhood of Kohat, but round Thall the country is better suited to their habits and they are plentiful. We did not meet with this species, and are indebted to Col. Rattray for the following notes he made at Thall:—"Fairly numerous. The birds are not permanent residents, but arrive about the middle of May with C. europæus. I always found this species on the open hill-sides, and not amongst jungle. It breeds in the more open nullahs during June and July. I obtained four nests with eggs, the female in each case being shot on leaving the eggs. ...."

Major Magrath procured an example at Bannu in September 1907.

[1090.] CAPRIMULGUS MONTICOLA. Franklin's Nightiar. Rattray, J. B. N. H. S. xii. p. 343 (Thall).

The following details are again taken from notes made by Colonel Rattray at Thall:—"Common and a permanent resident. I found it breeding plentifully; all the eggs that I procured from five nests were laid without any depression, and were extremely highly coloured, being almost brickred."

[1092.] CAPRIMULGUS EUROPÆUS. The Common Nightjar. Rattray, J. B. N. H. S. xii. p. 343 (Thall: commonest Nightjar in summer; found ten nests); Marshall, op. cit. xv. p. 351 (fairly common at Quetta in summer); Rattray, op. cit. xvi. p. 661 (not common in the Murree Hills).

Passes through Kohat in spring and autumn, and nests commonly in the scrub-jungle around Thall. I shot several examples.

[1104.] Cuculus canorus. The Common Cuckoo. Marshall, J. B. N. H. S. xv. p. 351 (Quetta: very common

in March and April); Fulton, op. cit. xvi. p. 58 (Chitral: fairly common in summer); Rattray, t. c. p. 661 (abundant in the Murree Hills); Ward, op. cit. xvii. p. 726; Magrath, op. cit. xviii. p. 296 (abundant at Thandiani, 9000 ft., Hazara District).

The familiar call of the Cuckoo is heard in Kohat from early in April till nearly the middle of May. The bird is found up to the tree-limit on the Safed Koh, but is rather scarce. It continues calling there till well past the middle of July.

Major Magrath (l. c.) records his finding Blue Cuckoo's eggs.

[1118.] Coccystes Jacobinus. The Pied Crested Cuckoo.

Ward, J. B. N. H. S. xvii. p. 726 (Kashmir: not common, Occurs rarely during the assume migration. It have met

with it on three occasions, ... in August and September.

[1120.] EUDYNAMIS HONORATA. The Indian Koel.

Ward, J. B. N. H. S. xvii. p. 726.

I cannot do better than quote the following notes made by Major Magrath:—"A summer visitor in small numbers, much to the annoyance of Corvus splendens. In the early summer of 1905 there were probably not more than half a dozen birds in the station, but they made enough noise for a hundred. I picked up a dead fledgling in the month of Arrives in Kohat about the middle of May. ~ Boquen Tree August."

The Rose - Minged [1138.] PALÆORNIS TORQUATUS. Parroquet.

Ward, J. B. N. H. S. xvii. p. 727.

The following details are also from Major Magrath's notes:—"A resident, though scarce. There are probably not more than eight or a dozen in the District, all of which frequent cantonments. I know of only two trees where they nest, one a large cotton-tree (Simal) and the other a Cirrus. A tame example which I kept in a state of semifreedom used often to mix with the wild birds, but the

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females, to whom he made advances, he invariably found, to his cost, appropriated."

[1141.] PALÆORNIS SCHISTICEPS. The Slaty-headed Parroquet.

Fulton, J. B. N. H. S. xvi. p. 58 (Chitral: summer visitor, occurring up to 7000 ft.); Rattray, t. c. p. 661 (very common in the Murree Hills); Ward, op. cit. xvii. p. 727 (common in summer and autumn up to 7500 ft.).

Flocks of this Parroquet visit the District during April (noted on various dates from the 8th to the 26th) and stay a few days. I came across a small nesting-colony on the 19th of June near Zeran, 5800 feet (Kurram Valley); the young birds had just flown.

[156 Oxio olio
[1157.] Asio accipitrinus. The Short-eared Owl.

Ward, J. B. N. H. S. xvii. p. 727 (occurs in the plains).

456. 3 ad. Samana, 6500 ft., 5th March.

Migrates through Kohat in March, but apparently only in small numbers.

[1159.] SYRNIUM BIDDULPHI. Scully's Wood-Owl.

Fulton, J. B. N. H. S. xvi. p. 58 (Chitral: not common, occurs up to 8000 ft.); Ward, op. cit. xvii. p. 727 (fairly common in Kashmir: eggs taken in April and May).

90. d. Kohat, 1760 ft., 19th January.

637. d. Hangu, 2700 ft., 3rd March.

Fairly common from November till April in the orchards and wild olive-groves of the Kohat and Miranzai Valleys.

This species spends the day in evergreen trees, but without troubling much about concealment, being often mobbed by Crows, Mynas, Bulbuls, &c. An individual so mobbed was rescued and taken to Major Magrath, who kept it till dusk and then let it go. He says that it allowed him to handle it and scratch its head, and appeared to be of a gentle disposition. He adds that the bird is a not uncommon winter visitor to Bannu.

[1164.] KETUPA ZEYLONENSIS. The Brown Fish-Owl. 668. 3 ad. Kachai, 2700 ft., 11th March.

Probably not rare, as the streams of the District are full of

small fishes and crabs. The stomach of the above-mentioned example was crammed with fragments of crabs' shells and claws, with a few fish-bones.

Besides this example I shot one of a pair at Kohat in November.

[1168.] Bubo Bengalensis. The Rock Horned Owl.

Rattray, J. B. N. H. S. xii. p. 343 (rare: Thall); Cumming, op. cit. xvi. p. 690 (Seistan: one young bird brought in); Ward, op. cit. xvii. p. 727 (common in Kashmir).

Major Magrath writes as follows on this species:—"A resident and fairly common. An example I shot on the 13th of January, 1906, was put up in broad daylight from a nullah in which it had just pounced on a huge bull-frog. It flew away with its prey some distance and was killed on the ground. The vast flocks of Pastor roseus that roosted in the cantonments in August 1905 were much harried by Owls, this species being, as far as I could ascertain, the chief depredator."

This is the common Owl of the District.

[1180.] ATHENE BRAMA. The Spotted Owlet.

Ward, J. B. N. H. S. xvii. p. 727 (Kashmir).

441. J. Kohat, 1760 ft., 19th February.

549. 3. Thall, 2550 ft., 15th May.

A fairly common resident, not found about houses, as is usually the case, but only in cliffs in wild and desolate parts of the District, or occasionally in groves. In the cliffs near Thall it is particularly common, and this must, I think, be the species which Colonel Rattray took for A. bactriana. Curiously enough in the adjoining District of Peshawar it

Curiously enough, in the adjoining District of Peshawar it occurs commonly about towns and villages.

[1191.] OTOGYPS CALVUS. The Black Vulture.

Ward, J. B. N. H. S. xvii. p. 728 (far from common in Kashmir).

Rarc. I met with a pair near Siau in November 1905, and a solitary individual on the grass-farm in February 1908. These are the only examples that I have observed.

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[1192.] Gyps FULVUS. The Griffon Vulture.

Rattray, J. B. N. H. S. xii. p. 343 (Thall: common); Marshall, op. cit. xv. p. 351 (Quetta: very common); Ward, op. cit. xvii. p. 728 (breeds in colonies and is resident).

Common throughout the District, especially on the Samana, where it breeds and is resident. Observed in the Kurram Valley up to 8500 feet.

[1196.] PSEUDOGYPS BENGALENSIS. The Indian White-backed Vulture.

Rattray, J. B. N. H. S. xii. p. 343; Ward, op. cit. xvii. p. 728 (rare in Kashmir).

Colonel Rattray recorded this species from Thall, and made the following notes on it:—"Common on the plains round Thall; they were feeding on the dead transport animals all along the road from Kohat to Thall." This was during the Tirah Campaign of 1897–98, which doubtless attracted them to our part of the country, where in times of peace they are unknown. The nearest place where I have seen them is at Rawal Pindi, a hundred miles east of our limits, where, in October 1905, on the occasion of thirteen mules being shot, a great number, in company with Gyps fulvus and Neophron percnopterus, assembled in anticipation of the feast.

[1197.] NEOPHRON PERCNOPTERUS. The Egyptian Vulture.

Rattray, J. B. N. H. S. xii. p. 343 (Thall); Marshall, op. cit. xv. p. 351 (Quetta: common in summer); Fulton, op. cit. xvi. p. 59 (Chitral: summer visitor from March till September); Rattray, t. c. p. 662 (common in the Murree Hills); Cumming, t. c. p. 691 (occasionally seen in Seistan); Ward, op. cit. xvii. p. 728.

The common Scavenger Vulture of the District. A resident everywhere, except on the Samana and in the Kurram Valley, which it leaves on the approach of winter, returning early in March with *Passer domesticus*. Scarce

in the Kurram Valley, though we noted it up to the head (7000 feet).

[1199.] GYPAËTUS BARBATUS. The Lammergeier.

Rattray, J. B. N. H. S. xii. p. 343 (common at Thall); Marshall, op. cit. xv. p. 352 (Quetta: very common and nests); Fulton, op. cit. xvi. p. 59 (Chitral: a common resident); Ward, op. cit. xvii. p. 928 (common; nests in February and March).

Common and found everywhere from the plains to the summit of the Safed Koh, though seldom seen in the plains from June till October.

from June till October.
[120] Aquila thuraitin The Julium Coale. (an Addition)
[1201.] Aquila HELIACA. The Imperial Eagle.

Ward, J. B. N. H. S. xvii. p. 728 (an uncommon winter visitor).

A fairly common winter visitor. Mr. Donald has seen one give chase to a Laggar Falcon, and finally force it to drop its prey. Immature birds of this genus are frequently seen about the grass-farm feeding on offal, mole-rats, &c.

[1202.] AQUILA BIFASCIATA. The Steppe-Eagle.

Ward, J. B. N. H. S. xvii. p. 336 (abundant in Kashmir). 772. 3 imm. Kohat, 1900 ft., 1st April.

Fairly common in winter, but those seen were mostly immature birds.

[1203.] AQUILA VINDHIANA. The Tawny Eagle.

Rattray, J. B. N. H. S. xii. p. 343; Ward, op. cit. xvii. p. 728.

Fairly plentiful in the cold weather and probably resident. Mr. Donald told me that in May 1907, when swarms of young locusts were devastating Kohat, he counted in one spot alone thirty-five of these Eagles which had apparently been gorging on the locusts. Colonel Rattray writes that in the Tirah Campaign he often saw this species feeding in company with Vultures on dead transport animals near Thall.

[1205.] AQUILA MACULATA. The Large Spotted Eagle. Ward, J. B. N. H. S. xviii. p. 464 (Badarwa, Kashmir). One pair observed on the grass-farm and another at the [46]

Lachi reed-bed in April and May. Probably breeds in the neighbourhood.

[1207.] HIERAËTUS FASCIATUS. Bonelli's Eagle.

Marshall, J. B. N. H. S. xv. p. 352 (Quetta: some breed in the hills); Ward, op. cit. xvii. p. 728 (not common in Kashmir).

A fairly common resident, very destructive to game. Mr. Donald, who has trained several of these birds, says that they are most courageous and will hawk anything they are entered to; but that they are wild and difficult to train, even when taken very early from the nest, and that through want of practice in flying they are usually rather unwieldly; added to which, owing to their marked partiality for poultry, they are somewhat unsatisfactory from a falconer's point of view. In the wild state they have a bad reputation for pursuing and killing trained Goshawks when they get the chance, and are said to be the worst enemies of the wild Goshawk. They hunt in pairs; their favourite quarry, if they can be said to have one, is perhaps the Wood-Pigeon, but little comes amiss, and they will snatch up a fowl when opportunity offers, or make off with a wounded duck.

[1216.] CIRCAËTUS GALLICUS. The Short-toed Eagle.

Ward, J. B. N. H. S. xvii. p. 728.

Fairly common in winter, and perhaps resident.

[1220.] BUTASTUR TEESA. The White-eyed Buzzard-Eagle.

711. d ad. Kohat, 1760 ft., 19th March.

A summer visitor, arriving early in March and leaving towards the end of October. Breeds fairly commonly in the Miranzai and Samilzai Valleys.

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[1223.] HALIAËTUS LEUCORYPHUS. Pallas's Fishing-Eagle.

Cumming, J. B. N. H. S. xvi. p. 691 (Seistan); Ward, op. cit. xvii. p. 728 (Kashmir).

Resident and common along the River Indus. Mr. Donald found four pairs nesting there in March. Rare elsewhere; occasionally seen between Chikarkot and Hangu.

[1229.] MILVUS GOVINDA. The Common Pariah Kite.

Rattray, J. B. N. H. S. xii. p. 344 (Thall: very common): Marshall, op. cit. xv. p. 352 (Quetta: common, scarce in winter); Rattray, op. cit. xvi. p. 642 (common in the Galis); Ward, op. cit. xvii. p. 729.

532. 2 ad. Peiwar Kotal, 8000 ft., 25th April.

A very common resident up to 4000 ft., occurring up to 8000 ft. in summer. Major Magrath writes: "The numbers of this species were considerably reduced in the winter of 1905 by the excessive cold. The unfortunate birds were induced to breed early in January by the mildness of the weather, and had actually commenced to nest when the intense cold, lasting well into March, fell on us."

[1230.] MILVUS MELANOTIS. The Large Indian Kite.

Rattray, J. B. N. H. S. xii. p. 344 (Thall: rare; shot a female off a nest); Fulton, op. cit. xvi. p. 59 (Chitral: April); Rattray, t. c. p. 663 (rare at Murree); Ward, op. cit. xvii. p. 729 (common in Kashmir).

Not common, more numerous on the Samana and in the Kurram Valley than elsewhere.

[1232.] ELANUS CÆRULEUS. The Black-winged Kite.

Fulton, J. B. N. H. S. xvi. p. 59 (common in Chitral in summer).

Fairly common in Kohat from early in April till October. In a mild year a few stragglers stay the winter. I met with it as high as Dandar (4700 ft.) in the Kurram Valley.

[1223.] CIRCUS MACRURUS. The Pale Harrier.

Marshall, J. B. N. H. S. xv. p. 352 (Quetta: common in spring); Fulton, op. cit. xvi. p. 59 (Chitral: April).

739. 3 ad. Kohat, 1760 ft., 25th March.

This is the common Harrier of the District. Chiefly seen on migration from September till the end of November, and from February till May, only a few remaining for the winter.

[1234.] CIRCUS CINERACEUS. Montagu's Harrier.

Ward, J. B. N. H. S. xvii. p. 729 (winter visitor to Kashmir).

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Rare. We both observed this species on the Samana during the spring migration. I also saw one near Lachi in March.

[1235.] CIRCUS CYANEUS. The Hen-Harrier.

Marshall, J. B. N. H. S. xv. p. 352 (occurs at Quetta in spring); Ward, op. cit. xvii. p. 729 (common in winter).

Fairly common on passage in spring and autumn.

[1237.] CIRCUS ERUGINOSUS. The Marsh-Harrier. 30 3/2. Marshall, J. B. N. H. S. xv. p. 352 (fairly common in winter); Ward, op. cit. xvii. p. 729 (very plentiful; possibly breeds in Kashmir).

Common about reed-beds and irrigated crops from September till the middle of May, especially in spring and autumn. Dresser, in his 'Manual of Palæarctic Birds' (p. 504), writing of this species, says: "It is doubtful if it dares even to attack a rat." I once disturbed a bird feasting on a freshly-killed adult Nesokia hardwickii (a particularly fierce species of field-rat), which I think must have been killed by the bird. I believe that a pair nested on the grassfarm at Kohat in the summer of 1906. They were there up to the 14th of June, when I left for the Kurram Valley.

On my return in August I found an immature bird in the same spot.

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[1239.] BUTEO FEROX. The Long-legged Buzzard.

Marshall, J. B. N. H. S. xv. p. 352 (common round Quetta in winter, chiefly the dark form; probably breeds close by).

A winter visitor and very common from October till

April. I have shot both the light and the dark forms, but
the former is much the commoner.

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[1241.] BUTEO DESERTORUM. The Common Buzzard.

Cumming, J. B. N. H. S. xvi. p. 691 (Seistan: one shot in February).

757. 9. Kohat, 1760 ft., 28th March.

A winter visitor, but by no means as common as the last species.

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[1243.] ASTUR PALUMBARIUS. The Goshawk.

Ward, J. B. N. H. S. xvii. p. 729 (rare).

This species occurs on passage, but very rarely.

Mr. Donald says that nets are set in four or five gorges in the independent territory north of Kohat. average twelve feet in height, have a two-inch mesh, and are made to fit roughly the bottom of the gorge, while they are so arranged as to collapse when struck by anything. Goshawk is thus occasionally taken in spring and autumn. Bonelli's Eagle is its chief enemy and pursues both wild and trained birds for its prey. This is the favourite Hawk with the local Khans, but it is an expensive luxury, females costing from Rs. 150 to Rs. 200 (£10-£13), and males from Rs. 50 to Rs. 70.

[1244.] ASTUR BADIUS. The Shikra.

Ward, J. B. N. H. S. xvii. p. 729 (Kashmir: rare).

A summer visitor, arriving towards the end of March. Nests commonly in the Samilzai Valley. Large numbers are snared by means of a light cage formed of fine netting stretched over supports, and covered with nooses; a live Quail is used as a bait. They are used for hawking Quail, Colonis and their price varies from 2d. to 1s. & headedges & myrishs

[1247.] Accipiter Nisus. The Sparrow-Hawk.

Rattray, J. B. N. H. S. xii. p. 344 (Thall: occasionally seen; breeds in the Safed Koh); Marshall, op. cit. xv. p. 352 (not common; occurs in spring at Quetta); Fulton, op. cit. xvi. p. 59 (Chitral: shot one in May at 8000 ft.); Ward, op. cit. xvii. p. 729 (a resident in Kashmir).

Occurs on migration in spring and autumn. Colonel Rattray mentions a young bird in down being brought to Parachinar in July from the Safed Koh. Mr. Donald tells me that this species breeds freely in Tirah, which lies just north of our limits, and that every autumn some thirty or forty individuals are snared along the Kachai stream, by means of a drop-net set up in the open, with a fine network cage containing Sparrows suspended in front. The Hawk

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seeing the Sparrows flutter up makes a dash and gets entangled in the net. The bazaar rate varies from 2 to 10s.

[1254.] FALCO PEREGRINUS. The Peregrine Falcon.

Ward, J. B. N. H. S. xvii. p. 729 (common in Kashmir).

This species occurs chiefly on migration in spring and autumn, but is by no means common. Mr. Donald only knows of one instance of its being snared in the District, but has often observed it on passage. The bazaar rate for a good female is about Rs. 30.

[1255.] FALCO PEREGRINATOR. The Shahin.

Rattray, J. B. N. H. S. xii, p. 344 (Thall: common along the foot of the hills); Ward, op. cit. xvii. p. 729 (occasionally caught near Srinagar).

A resident, and after the Laggar the commonest of our larger Falcons. Mr. Donald generally keeps a pair for hawking Chukor, Partridges, Teal, &c. He speaks highly of their courage, and has known one strike and kill a Mallard, but says that, though comparatively easy to train, after a year or two in captivity they deteriorate rapidly. There are many eyries scattered through the District. In June and July Mr. Donald has often seen them taking Bats; these he thinks must be young birds practising.

[1257.] FALCO JUGGER. The Laggar Falcon.

Marshall, J. B. N. H. S. xv. p. 352 (Quetta: fairly common); Ward, op. cit. xvii. p. 729.

Resident and common in open, cultivated country. Mr. The Donald says that this species is the most frequent lure for taking other and more valuable Falcons. It is usually trained to take hares, but is not thought very much of, being too slow. The bazaar price is R. 1.

[1258.] FALCO CHERRUG. The Cherrug or Saker.

The Cherrug occurs in open country like the last species, but is not nearly so common, and is a winter visitor only, arriving about October and leaving in April. Mr. Donald kept two birds which he trained very successfully to take Milvus govinda as well as Houbarak-Bustards, and Hares.

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After the Goshawk and Peregrine, this is the favourite amongst local falconers. The price ranges from Rs. 7 to Rs. 14 for a good female.

[1260.] FALCO SUBBUTEO. The Hobby.

Fulton, J. B. N. H. S. xvi. p. 60 (Chitral: one specimen obtained in May); Rattray, t. c. p. 663 (rare in the Murree Hills; breeds); Ward, op. cit. xvii. p. 729 (breeds in the higher hills of Kashmir).

Mr. Donald states that this species is fairly common in spring and that he has observed it as late as May. I came across three individuals in beautiful adult plumage in February near Lachi; they were flying backwards and forwards, sparring at each other, and occasionally perching in a tree close by, while constantly uttering a cry which sounded like "gyák-gyák."

[1263.] ÆSALON REGULUS. The Merlin.

Ward, J. B. N. H. S. xvii. p. 729 (widely distributed in winter).

This bird is fairly common from October till the middle of March; it is more often seen about the grass-farm and the Tarma and Lachi plains than elsewhere. It migrates over the Samana in March. It is seldom trained in this district.

[1264.] ÆSALON CHICQUEBA. The Red-headed Merlin or Turumti.

An occasional visitor, but by no means common. I have only twice seen the Turumti; on one occasion the bird shot down just in front of me to take a Starling flying in to roost, and started to tear it up close by, giving me a splendid view through my glasses. Mr. Donald says that he has met with this species in Kohat in most months of the year. He has a great opinion of its courage, and has trained it to take Rollers (a bird a great deal bigger than itself), while he has known a pair to tackle a Blue Rock-Pigeon. It is a fairly common resident, he says, in the adjoining Districts of Peshawar and Mianwali. Major Magrath has also found it not uncommon in Bannu. The wide open plains of these Districts are more to its liking than the confined valleys of Kohat.

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[1265.] TINNUNCULUS ALAUDARIUS. The Kestrel.

Rattray, J. B. N. H. S. xii. p. 344 (a common resident at Thall); Marshall, op. cit. xv. p. 352 (Quetta; common; found many nests); Fulton, op. cit. xvi. p. 60 (Chitral: a very common resident from 4000 ft. upwards; one seen at 18,000 ft.); Rattray, t. c. p. 663 (common in the Murree Hills); Ward, op. cit. xvii. p. 729.

753. J. Kohat, 1760 ft., 27th March.

764. 3. ,, ,, 23rd March.

Common in winter; a resident on the Samana and in the Kurram and Miranzai Valleys (nesting regularly at Thall, 2550 ft., and Hangu, 2700 ft.).

[1292.] COLUMBA INTERMEDIA. The Indian Blue Rock-Pigeon.

Rattray, J. B. N. H. S. xii. p. 344 (Thall: common in winter); Marshall, op. cit. xv. p. 352 (a resident at Quetta); Fulton, op. cit. xvi. p. 60 (Chitral: resident, occurring up to 10,000 ft.); Cumming, t. c. p. 691 (occurs in Seistan); Ward, op. cit. xvii. p. 943 (Kashmir).

Occurs in large flocks in the District from August to April. A few appear to be resident round Thall, but the great majority leave in April. Colonel Rattray, in his 12 - Inch article referred to above, says that "they were breeding in hundreds in a cliff near the Fort. About the middle of April they all disappeared suddenly." On the 19th of May, 1907, however, I found some still about the cliffs at Thall.

[1293.] COLUMBA LIVIA. The Blue Rock-Pigeon.

Rattray, J. B. N. H. S. xii. p. 344 (Thall: large flocks occur in winter); Marshall, op. cit. xv. p. 352 (Quetta); Ward, op. cit. xvii. p. 943 (the common Pigeon of Kashmir).

Occurs with flocks of the last species in winter, but is much less common. Never observed in separate flocks.

[1295.] COLUMBA EVERSMANNI. The Eastern Stock-Dove. Cumming, J. B. N. H. S. xvi. p. 691 (Seistan: April); Ward, op. cit. xvii. p. 943 (Kashmir: rare, occurs on migration).

[53]

81. C. lima

Migrates through Kohat in the latter half of April in small flocks, which feed chiefly on the mulberries that are then ripening. Less wary than other members of the genus. Appears to be scarce in the Kurram Valley, and probably only passes through. I shot an example at 6500 feet in Ilex-scrub on the 2nd of May.

[1298.] PALUMBUS CASIOTIS. The Eastern Wood-Pigeon. Marshall, J. B. N. H. S. xv. p. 352 (common on the hills round Quetta); Ward, op. cit. xvii. p. 943 (Kashmir).

A resident species, collecting in large flocks in autumn in the scrub-jungle above Marai, about Shinauri, and in the wooded nullahs of the northern slopes of the Samana—these being its favourite haunts, but odd birds occur all over the District. Mr. Donald tells me that it nests freely near the Tera Kotal above Shinauri, and north of the Samana. It occurs also in the Kurram Valley, and probably breeds there, but may still be seen in flocks in May.

[1305.] Turtur ferrago. The Indian Turtle-Dove.

Fulton, J. B. N. H. S. xvi. p. 60 (common in Lower Chitral in summer); Rattray, t. c. p. 663 (common in the Murree Hills); Ward, op. cit. xvii. p. 943 (common in Kashmir).

Small numbers migrate through Kobat from mid-April till the 3rd or 4th of May, returning in September and October. Mr. Donald has found it nesting on the Samana, while I shot a specimen there as late as the 4th of November. It is common in summer in the woods of the Safed Koh, from 7000 feet to tree-limit.

[1309.] TURTUR CAMBAYENSIS. The Little Brown Dove. Rattray, J. B. N. H. S. xii. p. 344 (Thall: common); Marshall, op. cit. xv. p. 353 (resident at Quetta, largely reinforced in summer); Fulton, op. cit. xvi. p. 60 (Chitral: probably common); Ward, op. cit. xvii. p. 943 (Kashmir).

A resident in the District and abundant at all seasons. Common in the Kurram Valley in summer up to 6500 feet, and occurring at least up to 8000 feet, at which height Major Magrath shot an example.

Hillibogh

[1310.] TURTUR RISORIUS. The Indian Ring-Dove.

Rattray, J. B. N. H. S. xii. p. 344 (Thall: common); Marshall, op. cit. xv. p. 355 (common summer visitor); Fulton, op. cit. xvi. p. 60 (common in summer); Cumming, t. c. p. 691 (very rare in Seistan); Ward, op. cit. xvii. p. 943 (Kashmir).

Abundant in summer, the majority leaving in autumn, though many stay for the winter. In the Kurram Valley the bird is common up to Dandar, but rather scarce higher up. I have met with it, however, as high as 8500 feet.

[1311.] ŒNOPOPELIA TRANQUEBARICA. The Red Turtle-Dove.

Rattray, J. B. N. H. S. xii. p. 345 (rare at Thall); Ward, op. cit. xvii. p. 943 (rare in Kashmir).

A summer visitor to the District, and fairly numerous 17 4 from the second week in April till August.

[1316.] Pterocles Arenarius. The Black-bellied Sand-Grouse.

Rattray, J. B. N. H. S. xii. p. 345 (Thall: passes through in March); Marshall, op. cit. xv. p. 353 (Quetta: common in autumn and spring); Cumming, op. cit. xvi. p. 691 (said to occur in Seistan); Ward, op. cit. xvii. p. 943 (Jummu).

Large flocks occur in the cold weather in the fields around Doaba and occasionally round Lachi and Dhand. I flushed a bird on the 21st of June, 1906, on the stony plain near Dhandar in the Kurram Valley, which was possibly breeding in the neighbourhood.

[1317.] PTEROCLES FASCIATUS. The Painted Sand-Grouse. Ward, J. B. N. H. S. xvii. p. 944 (Jummu).

A rare bird, probably resident. Mr. Donald told me that he had frequently flushed a pair of strange Sand-Grouse in the scrub-jungle west of Shinauri (3800 feet), but that for a long time they managed to escape. Eventually, however, one was brought to bag and on being compared with Hume and Marshall's 'Game Birds of India' was found to correspond exactly with this species. This is not the first record of its occurrence west of the Indus. In 1902, Major Barton,

of the Guides, sent a skin to the Bombay Natural History Society, and in a note to the Journal (vol. xiv. p. 606) wrote that the bird was shot every year near Mardan and that it was said to be resident.

[1321.] PTEROCLURUS EXUSTUS. The Common Sand-Grouse.

A resident in Kohat, but not very common. Pteroclurus alchata should occur, but we have not met with it, nor has Mr. Donald.

[1342] LOPHOPHORUS REFULGENS. The Monál.

Fulton, J. B. N. H. S. xvi. p. 61 (common in Lower Chitral); Ward, op. cit. xvii. p. 944 (common in Kashmir).

Fairly numerous on the Safed Koh from 9000 feet to tree-limit. I came across young ones fairly strong on the wing on the 27th of June.

[1355.] Coturnix communis. The Grey Quail.

Rattray, J. B. N. H. S. xii. p. 345 (Thall: passes through in spring and autumn, a few are resident); Marshall, op. cit. xv. p. 353 (Quetta: a few occur in spring and autumn); Fulton, op. cit. xvi. p. 61 (Chitral: passes through in spring, a few stay); Cumming, t. c. p. 692 (Seistan: fairly common; nests in March and April); Ward, op. cit. xvii. p. 944 (summer visitor, nesting). Com. at Books Chulin og (Yenny)

Passes through in varying numbers from about the third 2-1 when week in March till the middle of May, and returns in August and September. Forty-six brace to two guns is the best morning's bag that I remember being made. Every year a few pairs stay to nest. Colonel Rattray found four eggs on the 21st of April near Thall. Mr. Donald has come across several nests, on one occasion actually treading on the sitting bird.

[1356.] COTURNIX CORAMANDELICA. The Rain Quail. Ward, J. B. N. H. S. xvii. p. 944. (A rare visitor: has been known to nest in Kashmir.)

Two or three examples are yearly shot in Kohat about May; the bird probably nests in the District.

[56] Boyle say its Come in the Konsen dummer

[1370.] CACCABIS CHUCAR. The Chukor.

Rattray, J. B. N. H. S. xii. p. 345 (Thall: a common resident); Marshall, op. cit. xv. p. 353 (Quetta: very common); Fulton, op. cit. xvi. p. 61 (very common, ranging up to 12,000 feet); Ward, op. cit. xvii. p. 944 (found everywhere in Kashmir).

662. Sex? Marai, 3000 ft., 9th March.

763. 2 ad. Kohat, 1850 ft., 30th March.

n waler Resident and fairly numerous from the plains up to at least 6000 feet in the Safed Koh. Angua de the should 2000 about mid Korn in Tibel at 14 eso fully

[1371.] AMMOPERDIX BONHAMI. The Sisi Partridge.

Rattray, J. B. N. H. S. xii. p. 345 (Thall: a fairly common resident); Marshall, op. cit. xv. p. 353 (Quetta: very common); Cumming, op. cit. xvi. p. 692 (Seistan: scarce).

A common resident on the stony hills of Kohat and the Kurram Valley up to about 6000 feet, and abundant in the more remote parts, where it is less persecuted.

[1372.] Francolinus vulgaris. The Black Partridge.

Rattray, J. B. N. H. S. xii. p. 345 (Thall: abundant); Marshall, op. cit. xv. p. 353 (Quetta: occurs about the foothills); Cumming, op. cit. xvi. p. 692 (Seistan: abundant).

A resident, and common in the Mazri scrub (dwarf-palm) of the Lower Kurram and Upper Miranzai Valleys, and, in un the fact, wherever there is plenty of Mazri. Cit uf one at Mujai

[1375] Francolinus pondicerianus. The

Partridge.

Rattray, J. B. N. H. S. xii. p. 345 (Thall: very common); One of the state of the s Ward, op. cit. xvii. p. 944 (Kashmir: occurs in the plains).

A resident and fairly numerous, but less so than the Sisi. It is found on much the same ground, though more frequently about cultivated spots, and up to about the same altitude in the Kurram Valley.

The Himalayan [1378.] TETRAOGALLUS HIMALAYENSIS. Snow-Cock.

Fulton, J. B. N. H. S. xvi. p. 62 (Chitral: found in winter

down to 6000 ft. and in summer up to 16,000 ft.); Ward, op. cit. xvii. p. 945 (common at high altitudes).

This grand bird occurs in summeron the upper slopes of the Safed Koh, from about 9000 feet to the summit, but is rather scarce. Like the Chukor, it would often escape notice were it not so talkative.

[1384.] TURNIK TANKI. The Indian Button-Quail.

Kingar

A summer visitor in small numbers, breeding on the grass-farm.

[1387.] RALLUS AQUATICUS. The Water-Rail.

Ward, J. B. N. H. S. xvii. p. 945 (breeds in the Valley of Kashmir). 869 8-3-69

402. 3. Dhand, 1200 ft., 17th November, 1906.

This example shot in reeds at Dhand Tank, was the only one met with.

[1393.] PORZANA PUSILLA. The Eastern Baillon's Crake. Rattray, J. B. N. H. S. xii. p. 345 (large numbers pass through about the end of May); Ward, op. cit. xvii. p. 945 (Kashmir).

692, 693. 9 9 ads. Lachi, 1540 ft., 17th March.

Capt. Keen shot the first example on the 11th of February, 1906, and from then till mid-April single individuals were met with at intervals. About the latter date the main body appeared, and up to the 20th of May large numbers continued to pass through, frequenting the grass-farm, irrigated crops, and cover near water. The bird has not been observed on the autumn migration, though common at Rawal Pindi (120 miles east) at that season.

[1394.] Porzana Maruetta. The Spotted Crake. 694. & ad. Lachi, 1540 ft., 17th March.

Passes through Kohat in fair numbers in March and April, frequenting reed-beds and irrigated crops. A great skulker, which may frequently be located by its peculiar loud callnote.

[1398.] AMAURORNIS FUSCUS. The Ruddy Crake. Ward, J. B. N. H. S. xvii. p. 945 (breeds in Kashmir). 281. 3 ad. Dandar, 4700 ft., 23rd June, 1906. [58]

I found numerous nests of this species in a marsh near Dandar, in the Kurram Valley. They are usually fairly well concealed in clumps of reeds or grass, and are merely hollows scantily lined with bits of these plants. The first eggs are laid about the middle of June, the clutch varying from five to seven. In colour they are creamy-white profusely spotted with pale red, and the average measurements are  $1.22 \times .82$  in. This species has brought the art of skulking to a high state of perfection, and it is only when the young have emerged from the shell that it shews itself at all.

[1402.] GALLINULA CHLOBOPUS. The Water-Hen. Ward, J. B. N. H. S. xvii. p. 945 (Kashmir).

A rather scarce winter visitor to Kohat; more numerous at Dhand than elsewhere. It occurs chiefly on migration in March and April, when it is frequently caught. It breeds in the Kurram Valley in small numbers. I found a nest at Dandar on the 9th of July.

[1405.] FULICA ATRA. The Coot.

Marshall, J. B. N. H. S. xv. p. 353 (Quetta: common in winter); Fulton, op. cit. xvi. p. 62 (Chitral: shot in March at Drosh); Cumming, t. c. p. 693 (Seistan: a common resident); Ward, op. cit. xvii. p. 945 (Kashmir).

Abundant on Dhand tank throughout the cold weather, occurring also in other suitable places in small numbers. I met with a pair near Lachi as late as the 20th of May, so that a few are probably resident.

[1407.] GRUS COMMUNIS. The Common Crane.

Rattray, J. B. N. H. S. xii. p. 345 (passes over Thall in great numbers: often driven back after storms).

Large flocks pass over the District from the third week in February till the end of March, returning in August and September, but rarely halting except in the Latammar Nullah or at Dhodha.

Residents at Parachinar say that Cranes on migration fly straight over the Safed Koh Range (lowest point 11,760 feet) and not round the western shoulder, but that they are frequently forced to turn back by storms. Major Magrath, too, 2.9.13

Flock of Kulan pound over from Kolat Cons

[59]

has often observed them returning S.E. to Bannu after a storm.

[1411.] Anthropoïdes virgo. The Demoiselle Crane.

Rattray, J. B. N. H. S. xii. p. 346 (Thall); Cumming, op. cit. xvi. p. 693 (Seistan: a few occur in February and March); Ward, op. cit. xvii. p. 945 (a winter visitor to Kashmir).

This beautiful species passes through in big flocks from the end of March till about the middle of April (last flock seen on the 17th), returning in September.

[1413.] Otis TETRAX. The Little Bustard.

Ward, J. B. N. H. S. xvii. p. 945 (Kashmir: one shot in December).

Very rare. We have never met with this species, but Mr. Donald says that he has twice flushed the "Butterfly" Bustard, as he calls it, from its peculiar flight, when hawking the Houbara.

[1415.] HOUBARA MACQUEENI. The Houbara Bustard.

Marshall, J. B. N. H. S. xv. p. 353 (passes through Quetta in March and April); Cumming, op. cit. xvi. p. 693 (fairly common in Seistan in spring: said to breed).

A rather scarce winter visitor, but fairly plentiful on the spring migration in March. Mr. Donald frequently takes this Bustard with his trained Cherrug Falcon (Falco cherrug).

[1418.] ŒDICNEMUS SCOLOPAX. The Stone-Curlew.

Marshall, J. B. N. H. S. xv. p. 353 (rare at Quetta); Ward, op. cit. xvii. p. 945 (Kashmir).

I only once met with this species in Kohat and that was near Sheikhan on the 22nd of August, 1906. Mr. Donald says that it occurs commonly in the desert-country between Yamrud and the mouth of the Khyber Pass, i. e. about 40 miles N.E. of Kohat.

[1427.] GLAREOLA LACTEA. The Small Indian Pratincole. Rattray, J. B. N. H. S. xii. p. 346 (Thall); Ward, op. cit. xvii. p. 945 (said to occur in Kashmir).

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A summer visitor from April till August. Col. Rattray found it breeding freely on the gravel banks in the Kurram River in April. It was very common when we passed through Thall in April and on our return in May.

[1431.] SARCOGRAMMUS INDICUS. The Red-wattled Plover.

Rattray, J. B. N. H. S. xii. p. 346 (common at Thall); Marshall, op. cit. xv. p. 353 (only one seen at Quetta, 5600 ft.); Ward, op. cit. xvii. p. 946 (a few occur at about 5000 ft. in Kashmir).

A resident in the plains; abundant in summer, but scarce in winter.

[1436.] VANELLUS VULGARIS. The Lapwing.

Rattray, J. B. N. H. S. xii. p. 346 (a few pass through Thall); Marshall, op. cit. xv. p. 353 (winter visitor to Quetta); Fulton, op. cit. xvi. p. 62 (Chitral: fairly common up to the end of May; probably breeds); Ward, op. cit. xvii. p. 946 (winter visitor).

Fairly common from October till the third week in March.

[1437.] CHETTUSIA GREGABIA. The Sociable Plover.

Rattray, J. B. N. H. S. xii. p. 346 (large flocks pass through Thall in April); Fulton, op. cit. xvi. p. 62 (Chitral: common in winter; saw some at Drosh, 4300 ft., at the end of May, probably breeds about there); Ward, op. cit. xvii. p. 946 (scarce in Kashmir).

I shot a solitary individual on the 6th of March on the parade-ground at Fort Lockhart, where it had alighted during parade. Many of those passing through in small flocks are in full plumage with black and chestnut on the abdomen.

[1438.] CHETTUSIA LEUCURA. The White-tailed Plover. Cumming, J. B. N. H. S. xvi. p. 694 (Seistan, 1700 ft., May 6th).

Mr. Donald shot a specimen on the grass-farm on the 31st of March, 1905, and sent it to Major Magrath for identification. This is the only occurrence in Kohat that I know of. In

Bannu, however, it is very common in winter about the larger marshes.

[1446.] ÆGIALITIS ALEXANDRINA. The Kentish Plover.

A somewhat rare spring visitor, arriving towards the end of February and disappearing before the end of March Major Magrath has found it common in Bannu in spring and autumn.

[1447.] ÆGIALITIS DUBIA. The Little Ringed Plover.

Rattray, J. B. N. H. S. xii. p. 346 (Thall); Marshall, op. cit. xv. p. 353 (common at Quetta in spring); Cumming, op. cit. xvi. p. 694 (fairly plentiful in Seistan); Ward, op. cit. xvii. p. 946 (Kashmir).

This species passes through Kohat in small flocks from about the end of February till the middle of May (last seen on the 20th). The numbers vary a good deal. In the spring of 1905 Major Magrath noticed a great many passing through, but in the following year comparatively few were seen. On the gravelly shores of the Kurram it breeds abundantly from Thall up to Dandar at least Colonel Rattray found many nests near Thall, from the end of May onwards.

I once saw an individual trying to escape observation by lying flat on the ground with head and neck extended, after the fashion of the Stone-Curlew.

[1451.] HIMANTOPUS CANDIDUS. The Black-winged Stilt. Marshall, J. B. N. H. S. xv. p. 353 (Quetta: common in March); Cumming, op. cit. xvi. p. 694 (scarce in Seistan); Ward, op. cit. xvii. p. 946 (breeds in Kashmir).

A rather rare visitor to Kohat from March till May (last seen on the 28th). Major Magrath says that it is very common in Bannu in spring.

[1460.] Totanus hypoleucus. The Common Sandpiper. Marshall, J. B. N. H. S. xv. p. 353 (Quetta: occurs in April, but is rare); Fulton, op. cit. xvi. p. 62 (Chitral: one shot on May 30th); Ward, op. cit. xvii. p. 946 (breeds in Kashmir).

Occurs on passage in the spring and autumn, a few stragglers staying for the winter.

[1461.] Totanus Glareola. The Wood-Sandpiper.

Fulton, J. B. N. H. S. xvi. p. 62 (Chitral: one shot on the 6th of May); Cumming, t. c. p. 695 (common in Seistan in May); Ward, op. cit. xvii. p. 946 (Kashmir).

Occurs in numbers on the spring migrution in the irrigated fields round Kohat.

[1462.] Totanus ochropus. The Green Sandpiper.

Marshall, J. B. N. H. S. xv. p. 353 (Quetta: common in winter); Fulton, op. cit. xvi. p. 63 (Chitral: common in spring; believed to breed in Chitral; many found between \$9000 and 14,000 ft. in July); Ward, op. cit. xvii. p. 946 (Kashmir).

Abundant on migration in April and May, and from the end of August till November; the majority leave about that time, but many stay for the winter in the plains, and a few non-breeding birds through the summer. It passes up the Kurram Valley in spring in great force, but does not stay to breed.

[1463.] Totanus stagnatilis. The Marsh-Sandpiper.

Not at all common, but a few individuals pass through every year between February and the middle of May, being generally found about the irrigated parts of the grass-farm.

[1464.] Totanus calidris. The Redshank.

Cumming, J. B. N. H. S. xvi. p. 695 (Seistan); Ward, op. cit. xvii. p. 946, & xviii. p. 464 (fairly common in Kashmir in winter; breeds in Ladak).

I have only met with one solitary example, and that was on the 17th of March near Lachi. Major Magrath, however, has found the bird very common in Bannu in winter.

[1466.] Totanus glottis. The Greenshank.

Ward, J. B. N. H. S. xvii. p. 946 (Kashmir).

A fairly common cold-weather visitor, arriving in October and leaving towards the end of April.

[1468.] PAVONCELLA PUGNAX. The Ruff.

Marshall, J. B. N. H. S. xv. p. 353 (Quetta: one shot in February); Ward, op. cit. xvii. p. 946 (a winter visitor to Kashmir).

[63]

Occurs in large flocks on the grass-farm and other suitable places from the end of February till the middle of May (I shot a single bird on the 17th).

[1471.] TRINGA MINUTA. The Little Stint.

Fulton, J. B. N. H. S. xvi. p. 63 (common in Chitral in April and May); Ward, op. cit. xvii. p. 946 (Kashmir).

Appears in small flocks towards the end of March, and is abundant about irrigated fields and shallow tanks, in company with Sandpipers, till the middle of May. Not met with in autumn.

[1474.] TRINGA TEMMINCKI. Temminck's Stint.

Arrives and leaves about the same time as the Little Stint, but unlike that species is almost always found singly. I have only once met with it in autumn, on the 26th of October.

[1482.] Scolopax Rusticula. The Woodcock.

Rattray, J. B. N. H. S. xii. p. 354 (Thall: a rare winter visitor); Marshall, op. cit. xv. p. 354 (Quetta: winter visitor); Fulton, op. cit. xvi. p. 63 (resident in Lower Chitral, but scarce); Rattray, t. c. p. 663 (nests freely in the Murree Hllls above 8500 ft.); Cumming, t. c. p. 695 (scarce in Seistan); Ward, op. cit. xvii. p. 946 (breeds in Kashmir).

A winter visitor from November till the middle of March, but not common: there are, however, several favoured spots in the District which can usually be counted on to hold one bird or more. In the gardens of Kohat itself some half-dozen are shot every winter.

[1484.] Gallinago collestis. The Common Snipe.

Rattray, J. B. N. H. S. xii. p. 346 (Thall: common in March); Marshall, op. cit. xv. p. 354 (Quetta: fairly common); Fulton, op. cit. xvi. p. 63 (Chitral: a few noticed in April); Cumming, t. c. p. 695 (Seistan: abundant from September to April); Ward, op. cit. xvii. p. 947 (breeds in Kashmir).

Passes through in varying numbers from the last week in January till the middle of April. Few stay in Kohat, but

in the Kurram Valley, where there is plenty of good feedingground, bags of fifty and sixty couples of this and the next species are often made in a few hours. On the return passage in autumn comparatively few halt.

[1487.] GALLINAGO GALLINULA. The Jack Snipe.

Rattray, J. B. N. H. S. xii. p. 347 (Thall); Marshall, op. cit. xv. p. 354 (Quetta: occasionally met with); Cumming, op. cit. xvi. p. 695 (Seistan: said to be fairly common); Ward, op. cit. xvii. p. 947 (Kashmir).

The same may be said of this bird as of the last, but it is not quite so common.

[1488.] ROSTRATULA CAPENSIS. The Painted Snipe.

Rattray, J. B. N. H. S. xii. p. 347 (Thall in March); Ward, op. cit. xvii. p. 947 (a resident in the Kashmir Valley).

Rare in Kohat. Capt. Keen shot a specimen in April 1904, while Mr. Donald and Major Venour shot several early in July 1907 and saw others. In the Kurram Valley it is a permanent resident, but is not common.

[1498.] HYDROPROGNE CASPIA. The Caspian Tern.

Rattray, J. B. N. H. S. xii. p. 347 (Thall); Cumming, op. cit. xvi. p. 696 (common in Seistan).

Note had

Colonel Rattray saw a party of seven near Thall on the 22nd of May and shot one. Capt. Keen and Mr. Boyle observed a large solitary Tern on the Toi near Hangu between the 20th and 26th of March, 1906, and from their description it must, I think, have belonged to this species.

[Major Magrath has also met with Larus ridibundus and L. cachinnans in Bannu, and as they both occur in Kashmir, they probably also do so in the Kurram Valley.]

[1499.] STERNA ANGLICA. The Gull-biiled Tern.

Rattray, J. B. N. H. S. xii. p. 347 (Thall: common in March); Cumming, op. cit. xvi. p. 696 (Seistan: common).

Small flocks pass through Kohat from the beginning of April till May (last seen on the 5th), and are then usually to be met with about the grass-farm or feeding in irrigated Coll hijack > 25/4/2 (65) fields.

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[1504.] STERNA MELANOGASTER. The Black-bellied Tern. Cumming, J. B. N. H. S. xvi. p. 696 (Seistan: not common).

Major Magrath observed this species in some irrigated fields near Doaba on the 18th of May, 1907. In Bannu he says that it is common.

[1526.] PHALACROCORAX CARBO. The Common Cormorant. Marshall, J. B. N. H. S. xv. p. 354 (Quetta: a few seen in March).

A fairly common bird on the Indus between Khushalgarh and Makhud. It also occurs occasionally up the Kohat Toi; Capt. Lyall sent me a specimen that he had shot on this stream near Hangu.

[1527.] PHALACROCORAX FUSCICOLLIS. The Indian Shag. Rattray, J. B. N. H. S. xii. p. 347.

Colonel Rattray shot an example near Thall in February, 1898, after a heavy storm in the Kurram Valley: it was the only one that he saw. We have never met with this species.

[1544.] Plegadis falcinellus. The Glossy Ibis.

1. Juv. Kohat, 1760 ft., 22nd August.

The only example that we have seen was a bird of the year which Mr. Donald shot in his garden on the 22nd of August, 1905, and sent to Major Magrath, who forwarded the skin to the Secretary of the Bombay Natural History Society. Mr. Donald flushed another on the grass-farm.

[1545.] PLATALEA LEUCORODIA. The Spoonbill.

Rattray, J. B. N. H. S. xii. p. 347 (Thall: a big flock, at the end of May).

I came across four Spoonbills on the grass-farm on the 30th of May, 1906. The following year, on the 30th of April, Major Magrath and I were standing on the Peiwar Kotal (8200 feet) when a flock of about twenty came up from the Kurram and passed close overhead; but apparently not relishing the strong north-west wind which met them as they topped the Kotal (i. e. pass), they wheeled round and flew back down the valley.

[1546.] CICONIA ALBA. The White Stork.

Occurs regularly on the spring migration either singly or in small parties. In the Kurram Valley we saw a flock of some two hundred near Dandar on the 20th of April. Single individuals continue to pass through up till the end of May.

[1547.] CICONIA NIGRA. The Black Stork.

Ward, J. B. N. H. S. xvii. p. 947 (occurs early in spring in Kashmir).

Not common; but small flocks are seen every winter from January till the end of Mach. April (24 4 Left and )

[1554.] ARDEA MANILLENSIS. The Eastern Purple Heron. I flushed three individuals out of the Lachi reed-bed on the 20th of May, 1906, while Major Magrath and I came on a small flock in the reeds at Dandar in the Kurram Valley in April 1907. These are the only occasions on which we have met with this Heron.

[1555.] ARDEA CINEREA. The Common Heron.

Rattray, J. B. N. H. S. xii. p. 347 (Thall: one or two always about); Marshall, op. cit. xv. p. 354 (Quetta: common, especially in March); Fulton, op. cit. xvi. p. 63 (only a few seen in Chitral); Cumming, t. c. p. 696 (common in Seistan); Ward, op. cit. xvii. p. 947 (abundant in the Vale of Kashmir).

Fairly common in suitable places, especially along the Kurram River. Probably a resident species.

[1559.] Herodias alba. The Large Egret.

Rattray, J. B. N. H. S. xii. p. 347 (Thall); Marshall, op. cit. xv. p. 354 (Quetta: fairly common in February); Ward, op. cit. xvii. p. 947 (Kashmir).

Colonel Rattray writes:—"A few birds appeared at Thall in the middle of May for a day or two; one was shot and brought to me, it was in splendid breeding-plumage."

We have not met with this species ourselves in Kohat, though Major Magrath has found it quite common in Bannu in winter.

[1565.] ARDEOLA GRAYI. The Pond-Heron.

Ward, J. B. N. H. S. xvii. p. 947 (breeds in Kashmir).

Abundant in the plains in summer, arriving in the beginning of April, and nesting freely in the cantonments. A few stay through the winter, if fairly mild.

[1568.] NYCTICORAX GRISEUS. The Night-Heron.

Rattray, J. B. N. H. S. xii. p. 347 (rare, but presumably resident at Thall); Ward, op. cit. xvii. p. 947 (breeds in Kashmir).

Personally I have only met with this species in summer from April onwards; but a few individuals appear to be resident, as Colonel Rattray observed it at Thall in winter, and Major Magrath at Bannu. It occurs in Kohat and the Kurram Valley (up to 4800 feet at least), but is not common.

[1570.] ARDETTA MINUTA. The Little Bittern.

Cumming, J. B. N. H. S. xvi. p. 696 (Scistan: one specimen); Ward, op. cit. xvii. p. 948 (breeds in Kashmir).

I found a nest with seven slightly incubated eggs in a reed-bed near Dandar on the 9th of July, 1906, and shot the male bird. The nest was a flat pad of reeds on a stump, three feet above the water. I have several times put up a Little Bittern, either this species or A. sinensis, in the reedbeds in the plains in April and May, but have not secured a specimen, so cannot say to which form it belonged.

[1574.] BOTAURUS STELLARIS. The Bittern.

Rattray, J. B. N. H. S. xii. p. 347 (Thall: very rare); Cumming, op. cit. xvi. p. 696 (Seistan: one shot in December); Ward, op. cit. xvii. p. 947 (a winter visitor, but not common).

72. Adult. Kohat, 1600 ft., 7th January.

A fairly common winter visitor, both to Kohat and the Kurram Valley. Leaves early in April (last seen on the 8th).

[1579.] Anser rerus. The Grey Lag-Goose.

Cumming, J. B. N. H. S. xvi. p. 697 (common in Seistan in winter); Ward, op. cit. xvii. p. 948 (abundant in winter).

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Duch o wild found generally? are hard to reaffect at trotal in mid wroter in large number of any hair falls: (Nation hard that) they are drune down by live cold, from wale round to taken.

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Mr. Donald has shot this species on the grass-farm; but it is very rare in Kohat, though occurring regularly in the Kurram Valley in spring.

[1588.] CASARCA RUTILA. The Brahminy Duck or Ruddy Sheldrake.

Rattray, J. B. N. H. S. xii. p. 347 (rare at Thall); Marshall, op. cit. xv. p. 354 (Quetta: occurs in February and March); Ward, op. cit. xvii. p. 948 (a winter visitor to Kashmir, breeds in Ladak).

Passes through Kohat from the middle of February till the middle of April, but is not common.

[1587. TADORNA CORNUTA (S. G. Gm.). Major Magrath writes that the Sheldrake is a regular spring visitor to Bannu in small numbers.]

[1592.] ANAS BOSCAS. The Mallard.

Rattray, J. B. N. H. S. xii. p. 347 (Thall: common in March); Marshall, op. cit. xv. p. 354 (Quetta: common in winter); Fulton, op. cit. xvi. p. 64 (passes through Chitral); Cumming, t. c. p. 697 (Seistan: common); Ward, op. cit. xvii. p. 947 (a few nest in Kashmir).

A winter visitor and one of our commonest Ducks; it disappears towards the end of March.

[1595.] CHAULELASMUS STREPERUS. The Gadwall.

Rattray, J. B. N. H. S. xii. p. 348 (Thall: common in March); Cumming, op. cit. xvi. p. 697 (not common in Seistan); Ward, op. cit. xvii. p. 948 (Kashmir).

Scarce in winter, but becoming fairly numerous in spring. Some stay very late: I shot an individual out of a party of three on one of the reedy tanks near Lachi on the 20th of May, 1906; they appeared to fly quite well. I was unable to visit this spot again before autumn, so cannot say whether the bird nests there or not. Colonel Rattray also writes:—
"One male was shot out of a party of three in June [at Thall] and brought to me."

[1597.] NETTIUM CRECCA. The Common Teal.
Rattray, J. B. N. H. S. xii. p. 348 (Thall: very common [69]

in spring); Marshall, op. cit. xv. p. 354 (Quetta: common in winter); Fulton, op. cit. xvi. p. 64 (Chitral: common on migration); Cumming, t. c. p. 697 (Seistan: abundant and apparently resident); Ward, op. cit. xvii. p. 948 (Kashmir: occurs in June and July in the Valley, but no eggs found).

Quite our commonest Duck and the first to arrive. The 9th of September is the earliest date on which I have noted it. As with all Ducks in Kohat, it is much more numerous in autumn and spring than in winter. It leaves towards the end of April.

[1599.] MARECA PENELOPE. The Wigeon.

Fulton, J. B. N. H. S. xii. p. 64 (passes through Chitral); Cumming, op. cit. xvi. p. 698 (Seistan: winter visitor); Ward, op. cit. xvii. p. 948 (fairly common in winter in Kashmir).

Not common, but usually occurs in March and April.

[1600.] DAFILA ACUTA. The Pintail.

Rattray, J. B. N. H. S. xii. p. 348 (Thall: one flock seen in March); Marshall, op. cit. xv. p. 354 (Quetta: fairly common in winter); Fulton, op. cit. xvi. p. 64 (Chitral: passes through in February and March); Cumming, t. c. p. 698 (Seistan: a winter visitor); Ward, op. cit. xvii. p. 948 (common on passage in Kashmir).

Passes through in small numbers in February and March.

[1601.] QUERQUEDULA CIRCIA. The Garganey.

Ward, J. B. N. H. S. xvii. p. 948 (Kashmir: common ou passage).

Mr. Donald shot one of a pair (a male) on the grass-farm in October; this is the only occurrence of the Garganey in the District that I have heard of.

[1602.] SPATULA CLYPEATA. The Shoveller Duck.

Rattray, J. B. N. H. S. xii. p. 348 (Thall: common in spring); Marshall, op. cit. xv. p. 354 (Quetta: fairly common in winter); Fulton, op. cit. xvi. p. 64 (Chitral: passes through in March and April); Cumming, t. c. p. 698 (Seistan: common in winter and probably resident); Ward, op. cit. xvii. p. 948 (Kashmir).

Not common in autumn and winter; but large numbers pass through in spring. Some individuals stay very late, and I have noticed them all through April and up to the 20th of May.

[1604.] NETTA RUFINA. The Red-crested Pochard.

Rattray, J. B. N. H. S. xii. p. 348 (Thall: occurs in March); Marshall, op. cit. xv. p. 354 (Quetta: common in winter); Cumming, op. cit. xvi. p. 698 (Seistan: common in winter, probably resident); Ward, op. cit. xvii. p. 948 (Kashmir: common in February).

Not common, but found throughout the winter at Dhand Tank, and occasionally elsewhere, up till the end of March.

[1605.] Nyroca Ferina. The Pochard.

Marshall, J. B. N. H. S. xv. p. 354 (Quetta: common in winter); Cumming, op. cit. xvi. p. 698 (Seistan: common and doubtless resident); Ward, op. cit. xvii. p. 948 (Kashmir).

Next'to the Teal this is our commonest Duck in the cold weather.

[1606.] Nyroca ferruginea. The White-eyed or Ferruginous Duck.

Marshall, J. B. N. H. S. xv. p. 354 (Quetta: common in February); Cumming, op. cit. xvi. p. 698 (Seistan: common in winter); Ward, op. cit. xvii. p. 948 (Kashmir: a common resident).

Less common than the last species, but fairly abundant on Dhand Tank in the winter. It leaves towards the end of March.

[1609.] Nyroca fuligula. The Tufted Pochard.

Marshall, J. B. N. H. S. xv. p. 354 (Quetta: common in March); Cumming, op. cit. xvi. p. 698 (a winter visitor in Seistan); Ward, op. cit. xvii. p. 948 (common, especially in March).

I have only met with this Duck at Dhand, where it is abundant and occurs throughout the winter, at least up till the end of March.

[1611.] ERISMATURA LEUCOCEPHALA. The White-headed Duck.

Marshall, J. B. N. H. S. xv. p. 354 (Quetta: February); Cumming, op. cit. xvi. p. 699 (Seistan: very common in winter, perhaps resident); Ward, op. cit. xvii. p. 949 (not common, but a regular winter visitor in Kashmir).

Very rare. I observed single birds at Dhand on the 18th of November, 1906. and the 21st of February, 1907, but could not get a shot; it is, however, an unmistakable species. Capt. MacNab, I.M.S., shot one at Mardan (thirty miles north of our limits) on the 12th of November, 1899 (vide J. B. N. H. S. xiii. p. 182).

[1612.] MERGUS ALBELLUS. The Smew.

Rattray, J. B. N. H. S. xii. p. 348 (Thall: February); Marshall, op. cit. xv. p. 354 (Quetta: common in winter); Ward, op. cit. xvii. p. 949 (Kashmir: often seen on the Wular Lake; breeds on the Shyoh).

An immature bird was brought in to Major Magrath on the 26th of December, 1905. I also observed a big flock on the Indus on the 18th of February, 1907.

[1613.] MERGANSER CASTOR. The Goosander.

Ward, J. B. N. H. S. xvii. p. 949 (shot on the Wular Lake and seen on the Indus).

A rare winter visitor, occurring on the Indus, where Mr. Donald has shot it.

[1616.] Podicipes nigricollis. The Eared Grebe.

403 & 404. Dhand, 1200 feet, 17th November.

Occurs regularly every winter on Dhand Tank, staying at least up till the end of March. The first example that I saw was one Capt. Keen shot in November 1905 at Jand, just beyond our limits.

[1617.] Podicipes albipennis. The Indian Little Grebe. Marshall, J. B. N. H. S. xv. p. 354 (Quetta: common in spring); Cumming, op. cit. xvi. p. 699 (Seistan: resident); Ward, op. cit. xvii. p. 949 (resident in Kashmir).

A very common resident at Dhand, while a few individuals occur in other suitable localities.

## E Jenson Attoch XIX 264

Additions and Corrections to the "Birds of Kohat."

By Lieut. C. H. T. WHITEHEAD, Indian Army\*.

[104.] ARGYA EARLII.

[139.] Pyctorhis sinensis.

These two species were observed only in Bannu (south of our limits), so the notes on them should be in brackets.

[411.] PHYLLOSCOPUS NEGLECTUS. (See 'Ibis,' 1909, p. 124.)

"This specimen is not typical P. neglectus, but is larger and darker. It appears to belong to P. neglectus lorenzi, but it is difficult to understand how this form can occur at Kohat. Perhaps the distribution of the Caucasian form is much wider than we know at present (Vög. pal. Fauna, i. p. 506). It would be desirable to examine a series and to make sure if it is this form which breeds in Kohat." (E. Hartert.)

[624.] For Saxicola Gnanthe read Saxicola morio Hempr. & Ehr.

[666.] MERULA MAXIMA.

In May and June last I found this Blackbird breeding in the juniper-scrub between 10,000 and 12,000 feet. Altogether eight nests were obtained. The nidification is very similar to that of *M. vulgaris*. The nest is usually built in a juniper, but occasionally in the hollow of a cliff. The song seems to lack the quality and variety of that of *M. vulgaris*, but it is not often heard. The ordinary call, and also the alarm-note, is tchut-ut-ut rapidly repeated. The rattling alarm so freely used by the common species was only heard when the eggs or young were in danger. The males are very wary, and are seldom seen near the nest, except when

\* [Lieut. Whitehead sends us the following corrections and additions to his article on the Birds of Kohat and Kurram in Northern India, which appeared in 'The Ibis' for January and April last (above, pp. 90 and 214). Dr. Hartert has kindly examined and determined some of the doubtful specimens. The numbers in brackets are those of the 'Fauna of British India.'—Edd.]

the young have to be fed. The majority appear to breed in immature plumage—only two were observed in the glossy black dress with orange bill of the adult. I have sent a nestling and a bird of the year during its first moult to the British Museum.

## [812.] PTYONOPROGNE OBSOLETA.

Common in March in the craggy hills of South Kohat. A few individuals were in pairs, so the bird may possibly breed there.

[838.] MOTACILLA CITREOLOIDES.

I can confirm my note about the nesting of this species in immature plumage. This year I was in its breeding-grounds a month earlier and came across a good many nests. Only about half of those breeding were in full plumage. The remainder were of two forms:—

(1) Grey above, with black feathers here and there; supercilium and under surface yellowish-white.

(2) Dark grey above with some black feathers; head and under surface deep yellow, sullied on the flanks and crown.

I have sent two examples, namely a nesting pair, the male of type (2) and the female of type (1), to the British Museum.

## [851.] ANTHUS SPIPOLETTA.

In my list ('Ibis,' 1909, p. 244) under No. [851] appears an enumeration of six specimens under the name Anthus spipoletta and of three under Anthus coutellii; under the latter name, however, two specimens (Nos. 646 and 647) are mentioned again, though they had appeared already as Anthus spipoletta. Dr. Hartert has kindly examined these Pipits for me, and he informs me that, in his opinion, they belong neither to typical A. spipoletta nor to A. coutellii, but to the Central Asiatic form which he calls Anthus spinoletta blakistoni (cf. Hartert, Vög. pal. Fauna, i. p. 282). As to numbers 622, 632, and 636, he is quite sure that they are typical A. blakistoni, while Nos. 387 and 568 are too much worn and too dirty to be named with certainty, but there is no reason whatever to doubt their belonging to A. blakistoni

as well. Dr. Hartert has also re-examined the four specimens [852] which I identified as A. japonicus, and he agrees with this determination. He points out further that the proper specific name of the Water-Pipit is spinoletta and not spipoletta, according to the original spelling.

[862.] CALANDRELLA BRACHYDACTYLA.

Nos. 613, 621, 730, 731 are examples of [864] C. tibetana and not of C. brachydactyla.

[1200.] AQUILA CHRYSAËTUS.

I have now seen the Golden Eagle in its summer-quarters in the Kaghan Valley, and feel fairly certain that the Eagle with the rufous-buff nape, which frequents the low rocky hills in Kohat in winter, is of this species. It is a regular visitor, but not common, and is not seen on the grass farms—the rendezvous of AA. heliaca, bifasciata, vindhiana, and maculata—nor fighting over carrion, monitor lizards, &c., as these other species do, but is usually found singly in desolate country.

[1388.] RALLUS AQUATICUS.

Another example of this species was shot on the 8th of March.

[1437.] CHETTUSIA GREGARIA.

The note on this species (suprà, p. 273) was somewhat misleading. I have re-written it as follows:—

Small flocks pass through from the last week in February till the end of March: many are then in full plumage, i. e. are black and chestnut on the abdomen (see Blanford, Fauna of B. I. vol. iv. p. 232). A solitary example was shot on the parade-ground at Fort Lockhart (6500 feet), where it had alighted during parade.

[1447.] ÆGIALITIS DUBIA.

The comma which has been inserted in the 7th line after "Dandar" entirely alters the sense: the comma should follow "at least."

The following species not in the Kohat list were noted by me last March on the River Indus near Kalabagh (a few

miles south of our limits), and are of interest as they probably also occur in Kohat:-

- [867.] ALAUDULA ADAMSI. The Indus Sand-Lark was common along the sandy shore wherever there were patches of vegetation; it had then paired, and one pair allowed me to watch them building their nest under the lee of some tamarisk shoots.
  - [1189.] Pandion Haliaëtus. I saw one Osprey fishing.
- [1419.] Esacus recurvirostris. I put up four Great Stone-Plovers off a stony bank.
- [1503.] STERNA SEENA. The Indian River-Tern, the Black-bellied, and the Caspian were all common, especially the first two.
- [1517.] RHYNCHOPS ALBICOLLIS. A flock of about thirty Scissorbills was seen flying up and down the river, occasionally resting on a sand-bank. Cry, a nasal kap, kap.
- [1583.] ANSER INDICUS. I saw a flock of Bar-headed Geese cropping young beans.



West, Newman imp.

MOLPASTES MAGRATHI.



West, Newman imp.

1. MOLPASTES INTERMEDIUS. 2. MOLPASTES LEUCOTIS.

A Note on Molpastes magrathi Whitehead.

By R. BOWDLER SHARPE, LL.D., F.Z.S., M.B.O.U.

## (Plates V. & VI.)

THE Editors have asked me to write a few words on the curious species of Bulbul which Lieut. C. H. T. Whitehead has lately named after Major H. A. F. Magrath (see Whitehead, Bull. B. O. C. xxi. p. 48 (1908); id. Ibis, 1909, p. 114).

Thanks to Lieut. Whitehead and Major Magrath, the British Museum contains an ample series of specimens of the Bulbuls which have served for the interesting essay they have written on these forms.

MOLPASTES INTERMEDIUS. (Plate VI.)

Molpastes intermedius (A. Hay); Oates, Faun. Brit. Ind., Birds, i. p. 272 (1889); Whitehead, Ibis, 1909, p. 111.

The three specimens from Kohat mentioned by Lieut. Whitehead (Nos. 634, 733, 735) appear to me to be certainly *M. intermedius*. They differ slightly *inter se*, the male having brown stripes on the lower flanks, while the others (male and female) are uniform ashy grey on the latter; all have the dark brown ear-coverts of typical *M. intermedius*. This species probably interbreeds with *M. leucogenys*, according to Major Magrath, and Mr. Donald has twice seen the two forms pairing together.

I have again examined the series which is enumerated by Lieut. Whitehead (above, p. 112), and I confess that I have never seen a more wonderful example of the hybridizing of birds in a wild state. There can be no question that all these specimens contain a certain amount of admixture, one of the other. Typical M. leucogenys has the chest uniform like M. leucotis (Pl. VI.), and both have lemon-yellow under tail-coverts and pure white ear-coverts, whereas M. intermedius has brown ear-coverts and crimson under tail-coverts, as well as a decidedly long crest. When the hybrids have a mottled brown chest (M. intermedius), the ear-coverts generally follow the brown ear-coverts of M. intermedius, and the crest is also long. The under tail-coverts vary from orange to crimson. There is, however, no rule as regards colour, and, as Lieut. Whitehead says, "some are more like M. intermedius, and others more like M. leucogenys or M. leucotis."

I quite agree with what Lieut. Whitehead and Major Magrath say about *M. leucogenys*, of which the breast varies in colour, some birds being more ashy grey than others, but the under tail-coverts are always lemon-yellow.

Sometimes there is some brown mottling on the chest, but as a rule this is uniform, and the ear-coverts are pure white, very few having any shade of dusky. Major Magrath observes on one of these specimens: "Consorts with *M. leucotis*"; and adds that it seems likely that the two species interbreed, though he has not actually observed a

fertile cross. The series collected by my two friends certainly points to hybridizing, the ear-coverts when sullied with brown being accompanied by a browner and longer crest (M. leucogenys), while pure white ear-coverts accompany a shorter and blacker crest (M. leucotis).

Molpastes magrathi (Pl. V.) has deep orange-coloured under tail-coverts, sometimes slightly inclining to crimson. The chest varies from uniform ashy grey to grey with more or less black mottling, the feathers being black in the centre, with ashy margins. I agree with Lieut. Whitehead that, on the present evidence, it is impossible to pronounce these birds to be hybrids. They could only be hybrids between M. leucotis and M. intermedius, but the latter does not occur in Bannu.

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## BULLETIN

OF THE

# BRITISH ORNITHOLOGISTS' CLUB.

#### No. CLXXXVIII.

THE hundred and eighty-sixth Meeting of the Club was held at Pagani's Restaurant, 42-48 Great Portland Street, W., on Wednesday, the 14th of May, 1913.

Chairman: F. G. PENROSE, M.D.

Members present:—E. C. Stuart Baker, E. Bidwell, N. Chaplin, H. J. Elwes, F.R.S., E. Gibson, H. Goodchild, C. H. B. Grant, Major H. H. Harington, G. Seccombe Hett, M.D., G. A. Macmillan, W. E. P. Macmillan, G. M. Mathews, W. R. Ogilvie-Grant (Editor), C. E. Pearson, Major F. W. Proctor, W. P. Pycraft, C. B. Rickett, W. L. Sclater, D. Seth-Smith, L. M. Seth-Smith, Major R. Sparrow, J. H. Stenhouse, M.B., R.N., H. M. Wallis, C. Whymper, S. L. Whymper, H. F. Witherby (Sec. & Treas.).

Visitors:—H. M. COLTART, J. G. CORNISH, C. E. FAGAN.

Mr. E. C. STUART BAKER described and exhibited examples of a new species of Thrush which he proposed to call

### OREOCINCLA WHITEHEADI, sp. n.

Adult. Nearest to Oreocincla mollissima (Blyth), but differs in having the whole upper plumage olive-grey instead

of rich olive-brown with a strong rufescent tinge; underparts also without any of the bright rufous tint, which is always present to a greater or less extent in O. mollissima, though there is a very slight tinge of ochre on the breast of one of the adult birds; the whole crown of the head is strongly marked with pale shaft-stripes, a character never present in the adult of O. mollissima. Bill from gape 28.4 mm., from feathers of forehead 21.6; wing 142.5-150; tail 95.4-98; tarsus 30.4.

Younger examples shew the same comparative differences to the young of O. mollissima as are shewn in the adults: that is to say, they are much less rufous both above and below; they are also much more strongly striated and have the dark margins of the feathers of the upperparts more conspicuous.

Obs. I have named this bird in honour of Capt. C. H. T. Whitehead, who discovered it in the Khagan Valley, in the Afridi Country, North-West Frontier Province of India.

Capt. Whitehead has furnished me with the following interesting notes:—

"This Thrush differs entirely in its habits from O. mollissima, which latter bird is an inhabitant of dense forests growing at a much lower elevation. This bird, on the contrary, frequents bare precipitous slopes above the limits of tree-growth at an elevation of 12,500-14,500 feet, where it nests in clefts in the rocks on cliffs. The notes I heard it utter were similar to the rattling alarm-notes (like a policeman's rattle) made by Merula maxima, which occurs on the same ground: also the single call-note, but I was too late in the season to hear its song. It was quite common in this one Valley (Khagan), but very wild and difficult to approach once the young ones could shift for themselves. As far as I could judge by observing (through glasses) pairs feeding their young, the male and female differed in no way from one another. In life the white bar bordered with black under the wing seemed to me very conspicuous."

Mr. Stuart Baker also made the following remarks upon Oreocincla mollissima and O. dixoni:—

"In working through the large series of O. mollissima in the British Museum I was greatly struck by (1) the great range of colour in that species and (2) by the variation in in the size of the bill.

"As regards colour, that of the upperparts varies from a rather pale rufescent olive-brown to a rich rufous-brown slightly tinged with olive. This variation in colour does not differ according to locality, for though Eastern specimens, more especially those from Nepal, are more richly coloured than those from the Western portions of its range, there are individuals from Nepal, Eastern India, and Burmah quite as pale as any from either Sikkim or Simla.

"The bill varies greatly in size, not only in length, but also in stoutness; in length it varies from 24 to 37 mm., and in depth at the base from 6 to 8.5 mm. The size of the bill is certainly no indication of sex, but it may be that the oldest birds have the longest and stoutest bills, though this is difficult to prove, for many apparently young birds have bills slightly longer than those which appear to be older.

"As regards Oreocincla dixoni this bird certainly cannot be separated from O. mollissima. The two points of difference are said to be (a) the mottling or barring of the greater wing-coverts in O. dixoni and (b) the longer tail.

"The ranges of O. dixoni and O. mollissima are identical, and extend from Chamba in the extreme N.W. to the Shan States in the extreme S.E. Throughout the whole of this range one finds specimens which exhibit no trace of wing-bars or mottling on the coverts, some which have faint signs of one or two wing-bars, others which show a little mottling on the coverts, and a few which have these feathers quite richly marked.

"The measurements of the whole series in the Museum of both O. dixoni and O. mollissima shew that the tails of the former vary between 113 and 130 mm. and those of the latter between 100 and 126 mm.

"The mottling appears to be a sign of great vigour and

high condition in old birds, and as such is accompanied by a slightly longer average measurement of the tail."

Mr. Stuart Baker drew attention to a clerical error in his description of Acanthopneuste trochiloides harterti (Bull. B.O.C. xxxi. p. 36), where the outermost pair of tail-feathers were described as being white on the outer webs, instead of on the inner webs.

## Mr. STUART BAKER also exhibited the following eggs:-

- (1) A series of eggs of Anthus rufulus and Anthus richardi striolatus, shewing that it is quite impossible to differentiate between the eggs of the two forms.
- (2) A nest and eggs of *Dicæum trigonostigma*, shewing that the eggs of this *Dicæum* are white, as are the eggs of almost all other species of this genus, and not spotted, as described in the Catalogue from eggs presented by Sir Hugh Low (Cat. Eggs. B.M. v. p. 8).
- (3) Four clutches of the eggs of Zoothera marginata, shewing that the single egg in the B.M. Collection is either an abnormal egg, both in size and coloration, or, as is more likely, is an egg of Geocichla citrina (Cat. Eggs B.M. iv. p. 114).
- (4) Eggs of birds not represented in the Museum Collection, shewing as far as possible the range of coloration in the various species.

Cissa ornata	2 clutches.
Zoothera monticola	4 ,,
Tribura major	6 ,,
Tribura luteiventris	8 ,,
Tribura mandellii	8 "
Hemixus flavala	4 ,,
Rubigula melanicterus	4 ,,
Spizixus canifrons	8 "
Ianthocincla austeni	1 clutch.
Grammatoptila austeni	1 "
Trochalopterum chrysopterum	4 clutches.
Trochalopterum phœniceum bakeri.	4 ,,
Actinodura egertoni khasiana	4 "