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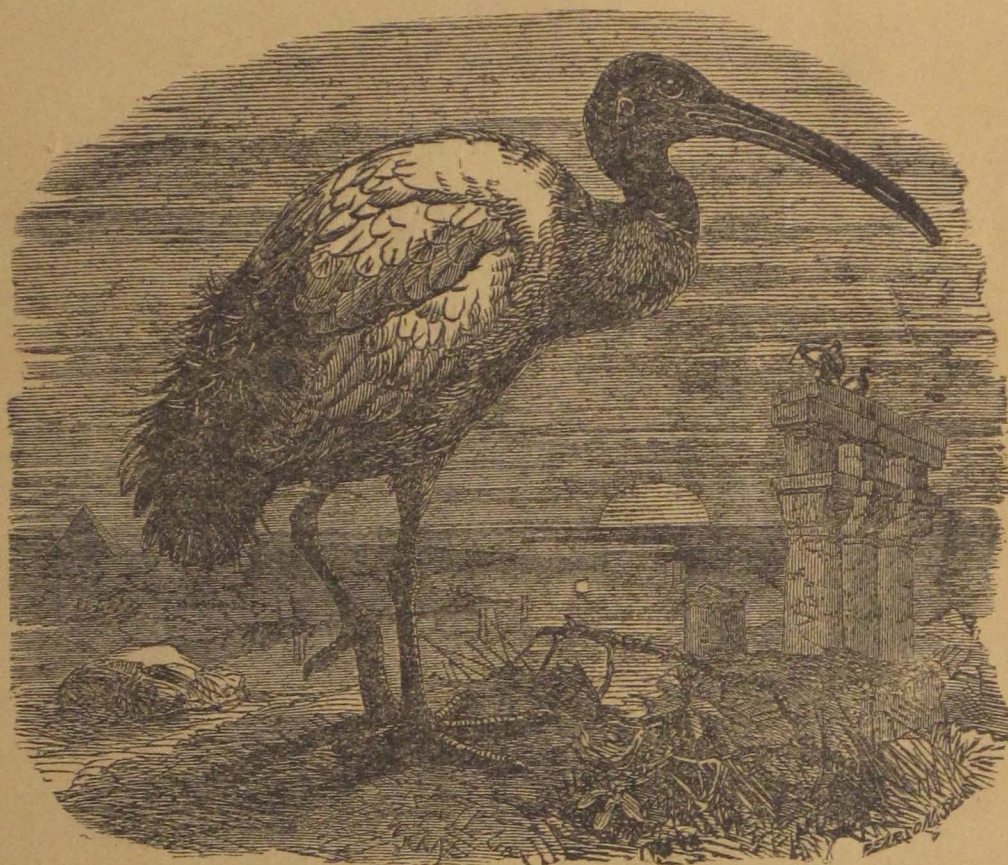
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The Birds of Bhutan and adjacent Territories of Sikkim and Tibet. By F. LUDLOW, M.B.O.U. With Notes by N. B. KINNEAR, M.B.O.U., Department of Zoology, British Museum (Natural History).

(Plates I.-VII.)

INTRODUCTORY.

This paper is based on a collection of 1700 skins obtained by Mr. Sherriff and myself in Bhutan, Sikkim, and Tibet in 1933 and 1934. The vast majority of the specimens come from Bhutan. Few Europeans have ever travelled in this country, and I am aware of no publication relating to its ornithology.

[Indeed, the only collection thence of any importance was made nearly a century ago. In 1837 Captain R. B. Pemberton, accompanied by Lieut. Blake, as Assistant, and Dr. William Griffith, Medical Officer and Botanist, went on a Mission to the Court of Bhutan. The Mission went by water to Gauhati, in Assam, and left there on 21 December for Diwangiri, just over the Bhutan frontier. From there the route was north to Trashiyangsi, then west to Punaka, and so south to Buxa, which was reached on 18 May, 1838.

Griffith, the botanist, had a very limited knowledge of birds, and the notes in his journal are of little value. He apparently was responsible for all the collections, and had with him a taxidermist, F. Monteiro by name. All the birds are labelled by Monteiro in French, with sex and native name, but, unfortunately, no date or locality is given. The labels are numbered serially, the same number given to all the specimens of the one species, so the number is of little help in tracing localities.

Actually how many birds were brought back we do not know. The serial numbers run up to 218, and there were many duplicates. The Government of Bengal presented 145 skins from the collection to the Asiatic Society of Bengal in 1838, and the remainder were sent home and received at the East India Company's Museum in 1840. When that Museum was given up, the collections were transferred to the British Museum, and I have been able to trace over two hundred skins. No report on the collection was ever published, but most of the specimens are recorded in Horsfield and Moore's 'Catalogue of the Birds in the East India Company's Museum,' 1854-58.

In 1840, Guerin and Delessert described four birds from Bhutan—*Pica bottanensis*, *Chloropsis auriventris* (= *hardwickii*), *Muscicapa variegata* (= *Siva s. strigula*), and *Cypselus leucotus* (= *Hirundapus caudacutus nudipes*). It seems probable that these were some of the specimens which Pemberton collected. Later Blyth described the following from Bhutan, based on Pemberton's birds:—*Pica megaloptera* (= *bottanensis*), *Garrulax imbricatus* (= *Trochalopteron l. imbricatum*), and *Chleuasicus ruficeps* (= *Suthora r. ruficeps*), while Gray named *Paradoxornis gularis* (= *Psittiparus g. gularis*) and *Gennæus horsfieldi*, and Moore *Ruticilla vigorsi* (= *Phænicurus erythrogaster vigorsi*) from the same source.

In the Indian Museum, Calcutta, there are a few birds from Western Bhutan which were collected by the taxidermist who accompanied the Hon. Ashley Eden's Mission to Bhutan in 1864. Owing to the lack of transport and other difficulties the taxidermist was sent back before the Mission had proceeded far into the country.]

Bhutan, therefore, offered an extremely favourable field for investigation.

The difficulty lay in gaining admittance to the country. In our simple treaty with Bhutan she accepts the guidance of the British Government in her foreign relations, but in all other matters she is entirely independent. This independence she treasures above all things. For generations past she has isolated herself from the outside world in her effort to preserve intact the Arcadian simplicity of her civilization. She is unwilling to admit the stranger within her gates, and in all her schemes for development and progress she employs her own people, and rigidly excludes the foreigner. Although a foreigner, I was not exactly a stranger. I had met His Highness the Maharaja in 1928, soon after he ascended the throne. Could I gain admittance? I knocked politely at the door—a short pause—and then it was thrown wide open, and Mr. Sherriff and I were invited to travel without restraint throughout the country. Neither of us can ever forget the debt we owe to His Highness Sir Jigmed Wangchuk, K.C.I.E., Maharaja of Bhutan. Never for a moment did we experience the slightest inconvenience in the matter of transport and supplies. At every stage a prepared encampment awaited us. Presents of fruit, vegetables, and a kindly letter of enquiry reached us at frequent intervals in the most remote places. What more could the heart of a traveller in the Himalayas desire?

To His Highness's Foreign Minister, Raja S. T. Dorje, and Lt.-Col. F. M. Bailey, C.I.E., and the late Mr. F. Williamson, C.I.E., formerly Political Officers in Sikkin, we also owe far more than we can express.

Finally, I am deeply indebted to my two good friends Mr. Sherriff and Mr. Kinnear. Without their help this paper could not have been written. Mr. Sherriff was my constant companion in the field, sharing the trials and triumphs of both journeys. Half the specimens, at least, fell to his gun, despite the fact that he was responsible for the botanical work of the Expedition. The maps are his handiwork, and most of the illustrations. Mr. Kinnear is responsible for the identification of all our specimens. His critical remarks

will be found in brackets in the systematic portion of this paper. There is no indication in print, however, of the close liaison he established with us in the field. But Mr. Sherriff and I are well aware that there is hardly a page that follows that does not owe something to Mr. Kinnear's encouragement and guidance.

AREAS AND BOUNDARIES.

Bhutan is a rectangular block of Himalayan territory, 18,000 square miles in area, lying between latitudes $26^{\circ} 45'$ and $28^{\circ} 20'$ N. and longitudes $89^{\circ} 10'$ and $92^{\circ} 15'$ E. On the north it is separated from Tibet by the great Himalayan Range, whilst two tongues of Tibetan territory, the Chumbi Valley and Mönnyul, clutch it on the north-west and north-east, as in a pair of calipers.

On the south it is bounded by the pestilential Assam and Bengal Duars. To the south-west and south-east lie Sikkim and the N.E. Frontier Tract.

MOUNTAINS AND RIVERS.

The orographical structure of Bhutan looks complicated, but is really simple.

It consists of the main Himalayan axis running west and east, and a series of parallel ranges, springing from the main range, running north and south. These latter are cut into a number of minor ranges which run in various directions. In our journey across Bhutan we crossed each of these parallel ranges by passes which averaged about 12,500 feet (*vide* map, Pl. V.).

There are four river-basins in Bhutan. The western half of the country is drained by three rivers, the Amo Chu, Wang Chu, and Mo Chu, known respectively in British India as the Torsa, Raidak, and Sankosh.

The eastern half of Bhutan is drained by the Trongsa Chu, Bumthang Chu, Kuru Chu, Kulong Chu, Nyam Jang Chu, and Tawang Chu, which all unite to form the mighty Manas River shortly before it enters the Assam plains.

Of these tributaries, the Kuru Chu and Nyam Jang Chu rise on the Tibetan Plateau, and cut through the main Himalayan axis in deep gorges at an altitude of roughly 10,000 feet.

CLIMATE AND RAINFALL.

Bhutan is less than 100 miles in breadth, yet within this short distance every type of climate is to be found.

To the south lie the low foothills covered with dense tropical forest ; to the north are the eternal snows of the great Himalayan Range. Between these two extremes there is every gradation of climate from the sub-tropical to the sub-arctic.

The rainfall in Bhutan is extremely heavy. Severe storms occur in May before the monsoon has set in, and the rains do not cease until mid-October. Precipitation varies considerably in different areas, even when such areas are in close proximity to each other. It appears to be heaviest in the region of the foothills, where comparatively low hills and ranges receive the full impact of the monsoon. Here the annual rainfall probably averages 200 inches. At higher levels it is not so depressingly heavy. In the alpine zone, for example, the early mornings often broke fine. At the same time a rainless day was such an unusual occurrence that we always recorded it with thankfulness in our diaries.

Paradoxical as it may seem, there are curious dry areas in Bhutan. They are to be found in some of the major valleys of the interior between 3000 and 6000 feet. In these areas the hill-slopes are almost destitute of forest, and exhibit a xerophytic type of vegetation.

It is difficult to account for this dry river-zone. Possibly it may be due to a current of hot air sucked up through the river gorge from the plains. At places such as Wangdi Potrang and Trashigong this dry up-stream wind is of diurnal occurrence, setting in a few hours after sunrise and dying down shortly after sunset. But the area of this dry zone is sharply circumscribed, and an ascent, sometimes of a few hundred feet, is sufficient to transport the traveller from comparatively arid country into dripping rain forest.

VEGETATION.

To give the reader a concise and tolerably accurate idea of the vegetation in Bhutan I have found it convenient to divide the country into four altitudinal zones, viz. :—

(a) *The Evergreen Zone.*

Along the southern boundary of Bhutan runs a tropical or sub-tropical belt of dense, almost impenetrable, forest which extends from the plains up to an altitude of 3000 or even 4000 feet. The heaviest rainfall occurs within this belt, and since frosts are unknown and the thermometer seldom sinks below 50° F., the luxuriant forest-growth is predominantly evergreen. It is an unhealthy, and for the most part uninhabited, area, given over to the elephant and tiger and other beasts of the forest. A few Nepalese settlers are to be found in the more favourable localities, but these people, and the few Bhutanese whom the traveller encounters, are emaciated and fever-stricken individuals, quite unlike the sturdy hillmen to the north.

(b) *The Deciduous Zone.*

Between 4000 and 8000 feet lies a zone of temperate forest where deciduous trees such as the maple, birch, and chestnut flourish, and oaks, hollies, rhododendrons, and magnolias abound.

Within this zone, as already remarked, there are found in some of the larger valleys of the interior comparatively dry belts where xerophytes are conspicuous.

Thin open forest of *Pinus longifolia* is frequently to be seen, whilst here and there the stately weeping cypress grows in splendid isolation.

The settled population of the country is confined almost entirely to this zone.

(c) *The Conifer Zone.*

Between 8000 and 13,000 feet lies the conifer and rhododendron zone. The former comprises *Pinus excelsa*, *Tsuga brunnoniana*, *Larix griffithii*, yews, junipers, and the silver fir (*Abies webbiana*)—the last-named being the dominant

conifer between 11,000 and 13,000 feet. There are at least fifty different species of rhododendrons in Bhutan, which constitute the glory of the forests in the spring of the year.

(d) *The Alpine Zone.*

Above the tree-line, which is approximately 13,000 feet, lies the alpine zone, where dwarf rhododendrons and willows and numberless flowers of great beauty flourish. We were collecting flowers as well as birds, and many of our botanical treasures came from this area.

SIKKIM AND S.E. TIBET.

We obtained a few specimens in Sikkim and S.E. Tibet. The former country has been well worked. Stevens (J. Bombay Nat. Hist. Soc. vol. xxix. no. 2 *et seq.*) has written an admirable paper on its ornithology, and the reader is referred to it for detailed information.

S.E. Tibet is not so well known, and a word as to the nature of the country we visited seems necessary.

When we speak of Tibet we normally conjure up in our minds a cold, barren, elevated plateau devoid of vegetation save for a few stunted shrubs and grasses. This picture is true for the greater part of the country, but it is not correct for certain parts of S.E. Tibet. It is not generally known that strips of Tibetan territory often occur south of the Himalayan axis, and that in some places they are almost in contact with the plains of Indo-Burma. The Chumbi Valley, for example, is a narrow strip of Tibet interposed between Sikkim and Bhutan. It is well forested, and its avifauna is totally different from that of the plateau region. On the eastern frontier of Bhutan is the Tibetan province of Mönnyul. Here Tibet almost impinges on the Assam plains, and parts of the province are actually in the subtropical zone.

Nor must it be imagined that the desolate plateau region of Tibet is entered immediately one arrives north of the main Himalayan Range. This is not always the case. There are many rivers in S.E. Tibet which rise on the plateau and cut their way through the Himalayan axis. The monsoon

current passes through these gaps in the range, and causes a heavy precipitation in the river-gorge country immediately to the north of it. This results in a luxuriant growth of trees, shrubs, and herbs.

In the areas we visited in 1933 and 1934 two rivers—the Kuru Chu and Nyam Jang Chu—pierced the main range, and we found well-forested valleys on its northern slopes, where the avifauna was Himalayan and not Tibetan. But as we ascended these rivers towards their source we rapidly passed into drier country, and quickly found ourselves on the true plateau surrounded by its unique and characteristic avifauna.

ITINERARY, 1933.

The most important highway in Bhutan traverses the country from west to east through the middle temperate region. This was the route we chose in 1933. It is aligned at right angles to the parallel ranges which spring from the main axis, and thus it no sooner ascends to a pass than it dips down into an adjoining valley.

This was rather a switchback method of progression, but it afforded us many opportunities of studying the zonal distribution of birds, and therefore had its advantages. Leaving Gangtok, in Sikkim, on 5 May, we were held up at Changu for a week owing to heavy snow on the Natu La. During our enforced halt at Changu the most interesting birds encountered were *Capella nemoricola*, *Turdus m. buddhæ*, *Fringalauda b. hæmatopygia*, and *Pyrrhospiza p. punicea*. A few days were spent in the Chumbi Valley, whence we proceeded in a leisurely manner to Ha. We crossed into the Ha Valley by the twin passes Chu La and Ha La, halting for ten days at Sharithang and Damthang, two encampments set amidst beautiful conifer and rhododendron forest on either side of the Massong Chung Dong Range.

Here we found *Nucifraga c. hemispila*, *Lophophanes r. beavani*, *Lophophanes d. dichrous*, *Ægithaliscus iouschistos*, *Garrulax a. albogularis*, *Ianthocincla o. ocellata*, *Suthora u. unicolor*, *Phylloscopus magnirostris*, *Phylloscopus t. trochiloides*, *Pyrrhoplectes epauletta*, *Propyrrhula s. subhimachala*, *Pyrrhula erythrocephala*, *Tragopan satyra*, *Ithaginis c. cruentus*, etc.

At Ha we were joined by the late Mr. F. Williamson, C.I.E., Political Officer in Sikkim, and Raja S. T. Dorje, and together we journeyed to Bumthang, the summer residence of His Highness the Maharaja.

We left Ha on 21 June, ascended the Cheli La, and dipped down into the wide open valley in which Paro is situated. We stayed here a week as the guests of the Paro Penlop, during which time we were treated with such lavish hospitality that collecting was out of the question.

On 28 June we continued our journey eastwards, halting at Pemithanka, Tsalimape, and Lometsawa, and reached Wangdi Potrang, in the Mo Chin Valley, *via* the Dokyong La, on 1 July.

At Wangdi Potrang (4500 feet) we found the valley of the Mo Chu comparatively dry and arid. The surrounding mountains were devoid of arboreous vegetation except near their summits, and were clothed only with shrubs and grasses. A hot dry wind blew violently up the valley. Amidst such different surroundings we noticed marked changes in the avifauna, which included such species as *Suya c. criniger*, *Melophus l. subscristatus*, *Molpastes l. leucogenys*, and *Franklinia r. rufescens*. Goral abounded and were as tame as goats. Higher up the Mo Chu, north of the deserted capital Punaka, lives an isolated colony of takin.

On 3 July we left for Trongsa, five marches distant, halting at Samtegang, Ritang, Chendebi, and Tsangsa. From Samtegang onwards we plunged again into leech-infested rain forest, but we were moving too quickly to do any serious collecting, and except for *Trochalopteron l. imbricatum* and *Pyrrhula n. nipalensis* we obtained nothing of any great interest.

Leaving Trongsa on 9 July we crossed the Yuto La, obtaining *Suthora f. fulvifrons* in bamboo growth on the summit. The descent on the eastern side of the pass produced a startling change in scenery, woods of oak, maple, and rhododendron giving place to beautiful fir forests with open grassy glades. We camped at Gyetsa, where we found Quail plentiful in the crops. Gyetsa is one of the two localities where Dr. Griffiths mentions "English-looking Magpies," and his specimens of

Pica p. bottanensis probably came from here, or from Bumdang Thang, thirty miles farther east.

A short march of six miles brought us to Bumthang, the summer residence of His Highness the Maharaja, where we received the warmest of welcomes.

We stayed here a week and then, on 18 July, the party split up. Mr. Williamson proceeded to Lhasa, whilst we continued our journey eastwards. Our time was now entirely our own and we halted where we pleased and collected assiduously. On the Rudo La we obtained *Myzornis pyrrhoura*, *Sylviparus m. modestus*, *Oreocinclla dixonii*, and, in the hot steamy gorge of the Kuru Chu, near Lhüntse, *Hæmatospiza sipahi*, *Megalaima v. magnifica*, *Oriolus t. traillii*, and *Oriolus c. tenuirostris*. On the Donga La we got a new Wren, *Spelæornis s. sherriffi*, and the unknown female of the Tibetan Blood-Pheasant, *Ithaginis c. tibetanus*.

Trashiyangsi was reached on 28 July. From here we turned north up the Kulong Chu River into unknown country, and reached the Me La, on the Tibetan frontier, on 4 August. Four stages intervene between Trashiyangsi and the Me La. Of the birds encountered in this valley I may mention the following:—At Trashiyangsi itself *Caprimulgus i. jotaka*, *Lanius n. nigriceps*, *Æthopyga n. nipalensis*, *Lalage m. melaschista*, *Seicercus x. xanthochistos*, *Molpastes c. bengalensis*, *Garrulax a. albogularis*, *Dryonastes c. cærulatus*, *Munia p. punctulata*, *Picus c. chlorolophus*, *Sphenocercus s. sphenurus*, and *Gennæus l. lathamii*.

In dense temperate forest between Tobrang and Lao were *Pnoepyga a. albiventris*, *Pnoepyga p. pusilla*, *Tesia cyaniventer*, *Tesia castaneocoronata*, and *Glaucidium b. brodei*. In the silver fir forests at and above Shingbe *Æthopygga i. ignicauda*, *Lanius tephronotus*, *Propyrrhula s. subhimachala*, *Carpodacus edwardsi*, *Procarduelis n. nipalensis*, *Carpodacus t. thura*, *Perissospiza c. carnipes*, and *Ithaginis c. tibetanus*. At 14,000 feet, amongst the rocks and boulders of the Me La, *Lerwa lerwa*, *Lophophorus impejanus*, and *Tetraogallus c. centralis*.

From the Me La we returned to Tobrang and crossed the Donga La Range by an unexplored pass called the Pang La. In rhododendron jungle near the summit of the pass we found

the rare Shortwing *Heteroxenicus stellatus* in considerable numbers, also *Homochlamys major*. We now descended into the valley of the Khoma Chu. Near Tosumani we obtained specimens of *Procarduelis r. rubescens* and *Mycerobas melanoxanthus*. Ascending the valley to its head, we reached Narim Thang on 18 August. Here we halted ten days. The most interesting birds obtained here were *Grandala caelicolor* and *Phylloscopus fulgiventis*, the latter in low rhododendron scrub above the tree line.

On 29 and 30 August we crossed the main range into Tibet by the Kang La and Pü La Passes (16,300 feet). The Hamo Chu Valley, in which we now found ourselves, was well forested, and we still continued to meet with Himalayan types such as *Ianthia c. rufilata*, *Pyrrhula erythrocephala*, *Mycerobas melanoxanthus*, *Dendrotreron hodgsoni*, and *Ithaginis c. tibetanus*. But as we descended the Hamo Chu, and rounded a spur a few miles above its confluence with the Kuru Chu, the aspect of the country changed with great suddenness. The hill-slopes in front of us were quite bare, and we seemed to have stepped into the dry zone without the slightest warning. The nature of the avifauna now clearly announced that we had reached Tibet, though not the true plateau region. Here, at Lhakhang Dzong, a rather squalid Tibetan village at 10,000 feet, we saw for the first time such typical Tibetan birds as *Pica p. bottanensis* and *Columba r. turkestanica*.

The remainder of our journey in Tibet is of no great interest from the ornithological point of view. The avifauna of the Plateau is remarkably uniform throughout its vast extent, and most of the species we met with are familiar to everybody who has studied this region. I do not propose, therefore, to do more than outline our subsequent route. On leaving Lhakhang Dzong we ascended the Kuru Chu to Towa Dzong and Mönda, and crossed the unexplored Mönda La to the Tö Monastery on the eastern shore of the Pomo Tso Lake. From Tö we proceeded to Ling, skirted the western shore of the beautiful Yamdrok Tso, and reached Nangkartse, four stages from Lhasa, on 13 September. We thence turned west over the Karo La to Gyantse, and returned to India by the Phari road to Kalimpong, which we reached on 7 October

STAGES AND ALTITUDES.

1933.

26 April-4 May	...	Gangtok.	6000 ft.
5 May	.....	Karponang.	9000 ft.
6-12	„	Changu.	12,400 ft.
13	„	Chumpithang.	13,000 ft. (Natu La, 14,100 ft.).
14-19	„	Yatung.	9800 ft.
20-31	„	Sharithang.	11,400 ft.
1-10	„	Damthang.	10,000 ft. (Chu La, 14,200 ft., Ha La, 14,000 ft.).
11-20	„	Ha.	9100 ft.
21	„	Chanana.	10,000 ft.; (Cheli La, 12,500 ft.).
22-27	„	Paro.	7750 ft.
28	„	Pemitanka.	8350 ft. (Bela La 11,500 ft.).
29	„	Tsalimape.	7700 ft.
30	„	Lometsawa.	6700 ft. (Dokyong La, 10,500 ft.).
1-2 July	.....	Wangdi Potrang.	4500 ft.
3	„	Samtegang.	7000 ft.
4	„	Ritang.	8200 ft.
5	„	Chendebi.	7500 ft. (Pele La, 11,000 ft.).
6	„	Tsangsa.	7500 ft.
7-8	„	Trongsa.	7100 ft.
9-10	„	Gyetsa.	9800 ft. (Yuto La, 11,200 ft.).
11-17	„	Bunthang.	9700 ft.
18	„	Tangnaru.	9400 ft.
19	„	Pimi.	9000 ft. (Rudo La, 12,600 ft.).
20-21	„	Khane Lhakhang.	8000 ft.
22	„	Tamachu.	5000 ft.
23	„	Lhüntse.	4500 ft.
24	„	Linji.	6500 ft.
25-26	„	Donga Pemi.	10,000 ft.
27	„	Sana.	8400 ft. (Donga La, 12,500 ft.).
28-30	„	Trashiyangsi.	5800 ft.
31	„	Shapang.	6500 ft.
1 August	.....	Tobrang.	7500 ft.
2	„	Lao.	9200 ft.

3-10 August	.....	Shingbe.	12,750 ft. (Me La, 14,950 ft.).
11	„	.....	Lao.
12	„	.....	Tobrang.
13	„	.....	Camp (Pang La east).
14	„	.....	Camp (Pang La west).
15	„	.....	Sawang.
16	„	.....	Tosumani.
17	„	.....	Singhi.
18-28	„	.....	Narim Thang.
29	„	.....	Menchumo.
30-31	„	.....	Hamo.
1-2 September	.....	Lhaxhang.	10,000 ft.
3	„	.....	Mug.
4	„	.....	Singhi Dzong.
5-7	„	.....	Towa.
8	„	.....	Lhalung.
9	„	.....	Mönda.
10	„	.....	Pomo Tso.
11	„	.....	Ling.
12	„	.....	Talung.
13	„	.....	Nangkartse.
14	„	.....	Dzara.
15	„	.....	Ralung.
16	„	.....	Gobshi
17-24	„	.....	Gyantse.
25	„	.....	Sov.gon.
26	„	.....	Khangma.
27	„	.....	Kala.
28-29	„	.....	Dochen.
30	„	.....	Tuna.
1 October	.....	Phari.	14,300 ft. (Tang La, 15,200 ft.).
2-7	„	.....	Phari-Kalimpong.

ITINERARY, 1934.

In our 1933 journey East Bhutan had attracted us greatly. Botanically and ornithologically it seemed to offer a favourable field for further investigation. In 1934, therefore, we planned

to work the basins of the Tawang Chu and Nyam Tang Chu, and then re-visit our old haunts in the Trashiyangsi Valley. Permission to return to Bhutan was readily given by His Highness the Majaraha, but it was not until late May that we received sanction from the Tibetan Government to visit the province of Mönnyul.

The season being well advanced, it was imperative for us to reach our collecting grounds without delay.

The quickest road thither was by the Diwangiri–Tawang Trade Route, and this we decided to take, although we knew we were running considerable risks in attempting to penetrate the fever-belt of the eastern Duars at this season of the year.

We left Srinagar on 13 June and reached Rangiya, on the East Bengal Railway, on the 17th. With the aid of a Ford lorry and car we had arranged to proceed to Darrang, in the foothills, and thence by pack-mules to Diwangiri, in one day. This would have taken us through the fever zone in daylight. But our plans miscarried. The monsoon broke the day we reached Rangiya, and though we ploughed our way through an appalling sea of mud to Darrang, we found the 2000-foot ascent to Diwangiri impossible. The track led up the narrow ravine of the Diwangiri stream, which was now an unfordable torrent. There was no alternative route, not even a hunter's path. So we put up at a neighbouring tea estate until the torrent subsided, and eventually reached Diwangiri on 22 June. The ascent of this ravine remains a nightmare. We forded the torrent thirty-five times, and the seven-mile march took nine hours to accomplish.

From Diwangiri to Trashigong all was easy going except for leeches and blister flies.

We reached Trashigong on 29 June and found ourselves in a dry part of the Manas Valley very much like that of the Mo Chu at Wangdi Potrang. From Trashigong we branched off eastwards up the unexplored Gamri Chu Villey to Sakden, which we reached in four stages. Here a calamity befell us which appeared at one time as if it would wreck our plans. This was malaria. With the exception of Sherriff, our interpreter, and Lepcha plant collector, the remainder of the party collapsed with malaria. We flew to the quinine bottle,

treated ourselves drastically, and after the lapse of ten days were sufficiently recovered to continue our journey.

We found Sakden excellent for birds and plants, and we returned to it in the autumn to collect seeds and study its avifauna more closely. We obtained here a new *Fulvetta* (*Fulvetta ludlowi*) and other interesting species such as *Prunella immaculata*, *Homochlamys major*, *Pteruthius x. xanthochloris*, etc. We expected to find *Tragopan b. molesworthi* here, as we were close to the supposed type-locality, but all the birds we saw were *Tragopan satyra*.

We left Sakden on 11 July, crossed the Se La Range by the Nying Sang La, and descended through silver fir and deciduous forest to Muktur, where we were almost eaten alive by leeches. The following day we crossed the Tawang Chu by a striking iron suspension-bridge, and ascended to the monastic town of Tawang, the only place in either Tibet or Bhutan of which we do not retain pleasant memories.

The passes between Tawang and Tsona held a rich flora, and at Shao, the intermediate stage, we passed through acres of *Primula sikkimensis*, and saw larger numbers of *Turdus m. buddhæ* than I ever remember having seen before.

The Kechen La seems to be on the main range, for here we saw *Otocorys a. elwesi* and *Fringalaua b. hæmatopygia*, whilst a few miles to the north brought us to Plateau country on which *Melanocorypha maxima*, *Montifringilla ruficollis*, etc., were abundant. *Grus nigricollis*, *Sterna h. tibetana*, and several Waders were noted on the Tsona marshes.

On 19 July we left Tsona and set out for the Mago district, where we proposed to spend a month. As far as the Tulung La our route lay north of the main range, and in the course of four days we crossed four passes of over 16,000 feet. After crossing the Tulung La we descended the valley of the Goshu Chu, and reached the twin villages of Nyuri and Dyuri in two days. Blackbirds were again very common, and we found *Carpodacus p. pulcherrimus* at 13,000 feet and *Capella nemoricola* at 14,000. We were now in the country of the Mönbas, a shy and timid race of Tibetan origin, and here we remained a fortnight, working the head-waters of the Tawang Chu. We then returned to Tsona. We were disappointed

with Mago. We had expected great things of the district, and it failed to come up to our expectations. On 15 August we left Tsona for Dongkar and crossed into the Nyam Jang Chu Valley by the Gorpo La (17,750 feet). We both fell in love with Dongkar. It lies within the dry zone, and we basked in the rays of a Tibetan sun and saw beauty in the bareness of the surrounding mountains. Here we saw *Pica p. bottanensis* again, also *Carpodacus e. roseatus* and *Emberiza c. khamensis*. Descending the Nyam Jang Chu, we crossed the Cha La into the large Rong Chu Valley, where the vegetation showed the rainfall to be considerable, though we were still north of the main range. Here we found *Perdix h. hodgsoniæ*, also *Leptopæcile s. obscura*, *Phylloscopus affinis*, and *Hodgsonius p. phænicuroides*. Our next pass, the Cho La, took us across the Himalayan Range, and we found ourselves overlooking the beautiful valley we had gazed into from the Me La the previous year. On 22 August we crossed the Me La and took up our quarters in our old camp at Shingbe. The height of the flowering season was now past, and during the ensuing three months we devoted all our time to the collection of birds and seeds. We moved very slowly, making prolonged halts at various places in the Trashiyangsi Valley, and again visited Sakden. We finally made our exit *via* Diwangiri on 15 November.

Nearly 750 skins were obtained during these last three months. We paid particular attention to the Troglodytidæ, and secured large and carefully sexed series of *Pnoepyga a. albiventer*, *Pnoepyga p. pusilla*, *Tesia cyaniventer*, and *Tesia castaneocoronata*, which have helped to elucidate several problems connected with this family. We also obtained specimens of *Elachura formosa*, *Spelæornis caudata*, and four more skins of the new race *Spelæornis s. sherriffi*. *Harpactes wardi* and *Garrulax gularis* were both obtained on the East Bhutan frontier—a considerable extension westwards of their previously known range. We were rather astonished to find *Mycerobas melanoxanthus* in large flocks in tropical forest at Diwangiri.

With the cessation of the rains on 18 October leeches disappeared, and we were able to creep through the forest

undergrowth and collect in comparative comfort. Resident birds were now reinforced by numbers of autumn migrants. We worked our way down to the evergreen zone and were kept very busy. So far we had left this zone quite untouched, and we greatly regretted we had not more time to devote to it. Had we been able to do this we could have added many more species to our collection, and this paper would have been a much more comprehensive guide to the birds of Bhutan than it is at present. As it stands, I am afraid the reader will search in vain for many a reference to the residents of the tropical and sub-tropical zone. But I trust he will be able to glean from the pages that follow some idea of the inhabitants of the temperate and alpine regions.

STAGES AND ALTITUDES.

1934.

17-21 June	.....	Menoka Tea Estate.	
22	„	Diwangiri.	2500 ft.
23	„	Satsalor.	3050 ft.
24	„	Chungkar.	6400 ft.
25	„	Khomanagri.	4600 ft.
26	„	Balfai.	6800 ft.
27-28	„	Ronglung.	5000 ft. (Yönpu La, 8200 ft.).
29	„	Trashigong.	3250 ft.
30	„	Rungzyung.	4000 ft.
1 July	.....	Phongmi.	5450 ft.
2-10	„	Sakden.	9700 ft.
11	„	Muktur.	8250 ft.
12-13	„	Tawang.	10,200 ft. (Nying Sang La, 12,200 ft.).
14	„	Shao.	13,300 ft. (Bum La, 15,000 ft.).
15-18	„	Tsona.	14,300 ft. (Kechen La, 15,600 ft.).
19	„	Thang.	14,500 ft. (Nyong Chung La, 15,600 ft.).
20	„	Gu.	15,700 ft. (Rala La, 16,700 ft.; Gu La, 16,650 ft.).
21	„	Zangthang.	15,400 ft. (Dza La, 17,200 ft.).

22 July	.....	Lungur.	13,500 ft. (Tulung La, 17,200 ft.).
23-25	„	Mago.	11,600 ft.
26	„	Camp (Gorja Chu Valley).	12,500 ft. (Chera La, 13,500 ft.).
27-28	„	Lap.	14,200 ft.
29	„	Camp (Gorjo Chu Valley).	12,500 ft.
30 July-7 Aug.	.....	Mago.	11,600 ft. (Chera La, 13,500 ft.).
8-14 August	.....	Mago-Tsona.	
15	„	Camp.	15,500 ft. (Gorpo La, 17,750 ft.).
16-17	„	Dongkar.	13,350 ft. (Sang La, 17,100 ft.).
18-19	„	Dhukar.	13,600 ft. (Cha La, 15,300 ft.).
20	„	Camp.	14,300 ft.
21	„	Karmu.	13,000 ft. (Cho La, 16,150 ft.).
22-27	„	Shingbe.	12,750 ft. (Me La, 14,950 ft.).
28	„	Lao.	9200 ft.
29 Aug.-5 Sept.	.....	Tobrang.	7500 ft.
6 September	.....	Shapang.	6500 ft.
7-8	„	Trashiyangsi.	5800 ft.
9	„	Camp, Dib La.	8000 ft.
10-14	„	Camp, Dib La.	12,000 ft.
15-20	„	Camp, Dib La.	11,500 ft.
21-24	„	Camp, Dib La.	10,000 ft.
25-29	„	Camp, Dib La.	8000 ft.
30 Sept.-1 Oct.	.....	Trashiyangsi.	5800 ft.
2-8 October	.....	Sana.	8400 ft.
9-10	„	Trashiyangsi.	5800 ft.
11	„	Shali.	6450 ft.
12	„	Tsirgom.	3100 ft.
13-14	„	Trashigong.	3250 ft.
15	„	Rungzyung.	4000 ft.
16	„	Phongmi.	5450 ft.
17	„	Taktoo.	7850 ft.
18-25	„	Sakden.	9700 ft.
26-28	„	Taktoo.	7850 ft.
29	„	Phongmi.	5450 ft.
30	„	Rungzyung.	4000 ft.
31	„	Ronglung.	5000 ft.
1-3 November	.....	Yönpu La.	8200 ft.

4-5 November	Khomanagri.	4600 ft.
6-8 ,, 	Chungkar.	6400 ft.
9-10 ,, 	Satsalor.	3050 ft.
11-14 ,, 	Diwangiri.	2500 ft.
15 ,, 	Rangiya Railway Station.	

Corvus corax tibetanus.

Prior to 1933-34 I had always looked upon the Tibetan Raven as a trans-Himalayan species. Twice only in ten years had I seen it south of the main axis. I was surprised, therefore, to find it in fair numbers in north Bhutan between 9000 and 14,000 feet and to see it in damp forested regions which I had considered hitherto to be quite outside the pale of this bird's habitat.

Stevens enquires if the Tibetan Raven ever mingles with the Jungle-Crow. Occasionally it does. I saw both these species feeding together at Yatung, Lhaxhang Dzong, and in the Mago district.

Corvus macrorhynchos intermedius.

3080, ♂, Sakden (9000 ft.), 21. 10.

Common in Bhutan, and in the Chumbi Valley, Tawang, and Mago districts of Tibet, all of which areas are south of the Himalayan Range.

Where rivers such as the Kuru Chu and Nyam Jang Chu cut through this range, this bird filters into the trans-Himalayan region, and was observed at Lhaxhang Dzong and at Chukar, near Dongkar.

[One in Pemberton collection.]

Corvus splendens splendens.

Not seen in Bhutan, though it was noted on the frontier at Diwangiri. To my amazement I saw this bird at Yatung (9800 feet), in the Chumbi Valley, on 18 May, in close proximity to three Ravens and several Jungle-Crows—a rather unique assembly of the genus *Corvus*.

I may as well correct here a misquotation by Meinertzhagen (Ibis, July 1927, p. 369), where he states I saw *zugmayeri*

at Dras, in Ladak. The bird noted was the Jackdaw, not the House-Crow (*vide* J. Bombay Nat. Hist. Soc. xxvii. p. 142).

Pica pica bottanensis.

2597, ♂, near Dongkar (13,500 ft.), 19. 8.

Delessert described this Magpie in 1840 from a specimen obtained in Bhutan.

We were constantly on the look-out for this bird in 1933, and did not see it anywhere in the country. We noticed it for the first time at Lhakhang Dzong, which is in Tibet, and thereafter we met with it in various localities between this place and Gyantse. The wet climate of Bhutan seemed to me quite unsuited to this bird's habits, and I began to wonder if its reported occurrence there was not a mistake. But bearing in mind the lesson the Tibetan Raven had taught me, I decided to make another effort to clear up its status. From Lhakhang Dzong we sent back our Lepcha plant collector through Bhutan to collect seeds, and I instructed him to look out for this bird on his return journey. He was already familiar with it, having seen numerous specimens at Lhakhang Dzong. When I met him in the Chumbi Valley a month later he told me he had seen it at Bumdang Thang, near Bumthang, but nowhere else. His observation was independently corroborated by Raja Dorje, who saw it at Bumthang itself in August 1933.

Dr. Griffiths in his Journal also mentions "English-looking Magpies" at Bumdang Thang and at Faisa (Gyetsa), near Bumthang. I think, therefore, the Black-rumped Magpie undoubtedly occurs in the Bumthang neighbourhood, and that in all probability Delessert's type-specimen came from this locality. In 1934 we saw this Magpie only near Dongkar, in Tibet. It was absent from Tsona, which is above the tree zone. From my experience in 1933-34 I have no hesitation in saying that this Magpie is rare in Bhutan, and I have no evidence that it occurs in any locality other than the Bumthang neighbourhood.

[Originally described by Delessert in the 'Revue Zoologica,' 1840, p. 100, from Bhutan, but how he got his specimens

we are not told. In 1837-38 nine examples were obtained during Capt. Pemberton's mission to Bhutan, and one was among the specimens collected by the Mission and handed over to the Asiatic Society by the Government. This bird was, in 1842, described by Blyth as *Pica megaloptera* in J. As. Soc. Bengal, xi. p. 193, 1842.

The remaining specimens were sent home with the rest of Capt. Pemberton's collection in 1840 to the Hon. East India Company's Museum, and eventually came to the British Museum. About 1847 Hodgson, who was then living at Darjeeling, received an example from Tibet which he sent to the India Company's Museum in 1848, and it was described by Gray in the 'Annals & Magazine of Natural History,' (2) iii. p. 209, 1849, as *Pica tibetana*. Mandelli's collectors obtained two specimens of this Magpie in Sikkim in 1873, another on the Tibetan frontier in 1874, and two others from the same place, without date, are in the Museum. They also got seven in Tibet in 1874, '77, and '78. Walton obtained specimens at Lhasa, Kambajong, and Gyantse during the Tibetan campaign, and Mr. Ludlow also collected an example at the last-named locality. According to Hartert, this Magpie extends to Kansu, and Rock shot two specimens as far south as We-shi and Kwan-chiai (14,500 feet and 12,500 feet,) Szechuan, in 1931.

This is the largest of the eastern races of the Common Magpie, and twenty-five examples measure 230-268, as compared with 195-208 mm. in *P. p. sericea* from South China; the latter extends into Burma.

Urocissa flavirostris flavirostris.

2121, ♀, Trashiyangsi (6000 ft.), 30. 7; 2876, ♀, Dib La (9000 ft.), 23. 9.

Well distributed throughout Bhutan between 6000 and 11,000 feet. We found it tame and confiding and a frequent visitor to our camps in search of food. We failed to meet with *Urocissa melanocephala* and *Cissa chinensis*.

[2 ♂♂ and 1 ♀ in Pemberton collection and one example of *C. chinensis*.]

Dendrocitta formosæ himalayensis.

1948, ♂, Wangdi Potrang (6000 ft.), 1. 7 ; 2381, ♂, Sedonchen, 6. 10 ; 2449, ♀, Gamri Chu (5000 ft.), 1. 7 ; 3222, ♂, Khomanagri (4000 ft.), 5. 11.

Throughout Bhutan below 7000 feet.

I think I saw a party of *Dendrocitta frontalis* near Diwangiri in November 1934, but the only bird I shot escaped in the dense jungle and so this identification is doubtful.

[A single male in the Pemberton collection.]

Garrulus glandarius interstinctus.

1928, 1929, ♂♀, Ha (11,000 ft.), 17. 6 ; 1949, 1950, 2 juvs., Wangdi Potrang, 1. 7 ; 2728, ♂, Trashiyangsi (6000 ft.), 6. 9 ; 2737, ♀, Trasgiyangsi (7000 ft.), 9. 9 ; 2910, ♂, Trashiyangsi (8000 ft.), 27. 9 ; 2943, ♂, Trashiyangsi (8000 ft.), 29. 9 ; 3225, ♀, Khomanagri (4000 ft.), 5. 11.

The Sikkim Jay is moderately common and widely distributed throughout Bhutan. I have seen it as high as 12,000 feet in conifer forest in June and in semi-tropical forest at 4000 feet in November. It occurs in dense as well as open forest, and is, perhaps, most partial to the oak zone between 6000 and 8000 feet. I have heard it utter the characteristic call of its tribe, but on the whole it is a silent and unobtrusive bird.

[Pemberton brought back a male and, according to Baker, it is found in the Dafla Hills.]

Nucifraga caryocatactes hemispila.

1837, ♀, Sharithang (11,000 ft.), 29. 5 ; 2070, ♀, Donga La, 25. 7 ; 2955, ♀, Sana (8000 ft.), 3. 10 ; 3077, ♂, Sakden (9000 ft.), 20. 10.

Common throughout Bhutan from 6000 feet up to tree-limit. Observed at 12,000 feet in the Hamo Chu Valley in Tibet near Lhakhang Dzong.

[♂ and ♀ obtained by Pemberton. This race does not, so far as we know, occur farther east.]

Pyrrhocorax pyrrhocorax himalayensis.

Common both in Bhutan and Tibet. Breeds in houses in the Chumbi and Ha Valleys in May and early June.

[♂ and ♀ in the Pemberton collection.]

Pyrrhocorax graculus.

A scarcer bird than the Red-billed Chough, especially north of the main range.

Pseudopodoces humilis.

2345, 2346, oo, Karo La (14,500 ft.), 15. 9 ; 2370, o, Tang La (15,000 ft.), 1. 10.

Absent from Bhutan ; common in Tibet north of the main range. In 1933 it was first seen between Towa and Lhalung, and was subsequently common as far as Gyantse. In 1934 it occurred between Tsona and the Tulung La. I have seen this bird perch on bushes, though in the ' Fauna ' (vol. i. p. 71) it is said never to do so.

Parus major tibetanus.

2347, 2348, ♂♂, Gyantse (13,200 ft.), 18. 9.

Met with in willow scrub at Gyantse. No Grey Tits were seen in Bhutan.

[*Parus major nipalensis*: two skins in Pemberton collection.]

Parus monticolus.

1789, ♂, Sharithang (11,500 ft.), 22. 5 ; 1985, ♂, near Trongsa (7500 ft.), 6. 7 ; 2441, ♀, Gmari Chu (5000 ft.), 1. 7 ; 2452, ♂, (Gamri Chu 5000 ft.), 1. 7 ; 2730, ♂, Trashiyangsi (6000 ft.), 7. 9 ; 2954, ♀, Sana (8000 ft.), 3. 10 ; 2988, ♂, Sana (8000 ft.), 6. 10 ; 3121, ♂, Gamri Chu (7500 ft.), 27. 10 ; 3215, ♀, Khomanagri (4000 ft.), 5. 11.

Common throughout Bhutan from 5000–12,000 feet in summer. A nest with young was found on 5 July near Trongsa.

A party observed at Lhaxhang Dzong north of the main range in September. In November it was seen at Diwangiri. Stevens found it almost at plains level in the Eastern Duars in winter, so it is a bird whose altitudinal range is considerable.

[On comparing the above series with some in Mr. Whistler's collection from the Western Himalayas I can see no difference, and *P. m. lepcharum* Meinertzhagen, therefore, becomes a synonym of *monticolus*, a conclusion Dr. Ticehurst had already come to (Ibis, 1935, p. 40). Two examples in the

Pemberton collection, and there are several in the Museum from the Chumbi Valley, obtained during the second Mt. Everest Expedition.]

Lophophanes ater æmodius.

1715, ♂, Changu (11,500 ft.), 8. 5 ; 1771, o, Lingmothang (11,500 ft.), 16. 5.

I have no record of this Tit from Central or East Bhutan. It was common enough in the conifer forests of the Chumbi Valley and West Bhutan.

Lophophanes rufonuchalis beavani.

1711, ♂, Changu (12,000 ft.), 7. 5 ; 1746, ♂, Changu (11,000 ft.), 11. 5 ; 1756, ♀, Chumpithang (12,500 ft.), 14. 5 ; 2008, ♀, Yuto La (11,500 ft.), 9. 7 ; 2014, ♂ juv., 2017, juv., Rudo La (10,500 ft.), 19. 7 ; 2101, ♂, Donga La (12,000 ft.), 27. 7 ; 2297, ♂, Narim Thang (14,000 ft.), 26. 8 ; 2532, o, Mago (12,500 ft.), 26. 7 ; 2627, ♂, Shingbe (12,750 ft.), 26. 8 ; 3049, o, Sakden (9000 ft.), 18. 10 ; 3064, ♂, Sakden (12,000 ft.), 19. 10.

Common everywhere, south of the main range, from 9000 feet up to tree-limit, and even above, for it was often seen in low rhododendron scrub at 14,000 feet.

[Three examples in the Pemberton collection.]

Lophophanes dichrous.

1755, ♂, Chumpithang (12,500 ft.), 14. 5 ; 1770, ♀, Lingmothang (11,500 ft.), 16. 5 ; 1783, ♂, Sharithang (11,500 ft.), 21. 5 ; 1803, 1804, o♀, Chumpithang (12,500 ft.), 25. 5 ; 2566, juv., Mago (12,000 ft.), 6. 8 ; 2569, ♂, Mago (11,500 ft.), 7. 8 ; 2778, ♂, Dib La (11,000 ft.), 12. 9 ; 3063, ♂, Sakden (12,000 ft.), 19. 10.

This Tit has the same distribution as the preceding species (I did not notice it above the tree-line) and is equally common.

[The juvenile differs from the adult in the shorter crest, the tips of which are darker than the rest of the feathers ; the upper side is darker, and below the cinnamon-buff is paler and less uniform in colour. I cannot see any difference in *L. d. wellsi* Baker from Yunnan.]

Sylviparus modestus modestus.

2013, o. Rudo La (10,500 ft.), 19. 7 ; 2740, ♀, Trashiyangsi (8000 ft.), 9. 9 ; 2755, o, Trashiyangsi (8000 ft.), 10. 9 ; 2997, ♂, Sana (8000 ft.), 7. 10 ; 2999-3003, 3 ♀♀, ♂♂, Sana (8000 ft.), 8. 10.

A bird of the tree-tops in mixed deciduous and conifer forest. Generally seen in large parties ; often mixed up with *Phylloscopi*, from which they were very difficult to distinguish.

Curiously enough, we did not meet with *Machlolophus*.

[One specimen in the Pemberton collection. The race *S. m. saturator* from Mt. Victoria, Yunnan, and S. China does not appear to differ. It is impossible to distinguish fresh skins from Sikkim and Bhutan from Kuatun examples. A single Yunnan skin and several from Mt. Victoria, shot in the spring, look dark, but that, I think, is due to wear. 3 ♂♂, Bhutan, 55-60 mm. ; 4 ♀♀, 57-59 mm.]

Ægithaliscus concinnus rubricapillus.

1670-1672, ♂♂, ♀, Gantok (5800 ft.), 30. 4 ; 1973, 1974, o, juv., near Trongsa (8000 ft.), 4. 7 ; 2399, ♂, Chungkar (5000 ft.), 25. 6 ; 2667, ♂, Tobrang (8000 ft.), 31. 8 ; 3148, 3149, ♀♀, Gamri Chu (6000 ft.), 29. 10 ; 3209, ♂, Jiri Chu (6000 ft.), 4. 11 ; 3234, ♀, Chungkar (6000 ft.), 7. 11.

Found throughout Bhutan between 5000 and 7000 feet in thin deciduous forest, and sometimes in thick scrub. It seemed rather local in its distribution, and was generally observed in large parties.

[Three skins in the Pemberton collection.]

Ægithaliscus iouschistos.

1794, ♀, Sharithang (11,000 ft.), 24. 5 ; 1862, ♂, Damthang (10,000 ft.), 2. 6 ; 1869-1871, ♂♂♀, Damthang (10,500 ft.), 3. 6 ; 1908, ♀, Ha (10,000 ft.), 12. 6 ; 2849, ♀, Dib Lal (10,000 ft.), 21. 9.

Tolerably common in West Bhutan ; only seen once in East Bhutan, though the party was a large one of thirty to forty individuals. A bird of mixed deciduous and conifer forest. An egg was extracted from the oviduct of no. 1794.

[Two examples in the Pemberton collection ; also found in the Chumbi Valley, Tibet, 10,000 feet, by the Second Mt. Everest Expedition.]

Melanochlora sultanea sultanea.

3270, ♀, Satsalor (3000 ft.), 9. 11.

We saw this low-altitude bird on one occasion, and I have no notes concerning it.

[One in the Pemberton collection.]

Conostoma æmodium æmodium.

2780, ♀, Dib La (11,000 ft.), 13. 9 ; 2790, 2791, ♀♂, Dib La (11,000 ft.), 13. 9 ; 2805, ♂, Dib La (11,000 ft.), 15. 9 ; 2823, ♂, Dib La (11,000 ft.), 17. 9 ; 3103, ♀, Sakden (9000 ft.), 23. 10.

This Parrot-Bill resembles the Laughing-Thrushes in its habits and calls, and is often associated with them. No. 3103, for example, was mixed up with the most cosmopolitan collection of Laughing-Thrushes I have ever seen. The party included *Ianthocincla o. ocellata*, *Trochalopteron e. nigrimentum*, *Trochalopteron a. affine*, and *Garrulax a. albigularis*. It is not a shy bird, and is generally found in thick bamboo and rhododendron bushes. It feeds on fruit as well as insects, and is particularly fond of wild raspberries. The iris is not brown as stated in the 'Fauna,' but is the same colour as the tip of the bill—pale orange-yellow.

Suthora unicolor unicolor.

1875, 1876, ♂♀, Damthang (10,500 ft.), 4. 6 ; 1879, 1880, ♂♀, Damthang (10,000 ft.), 5. 6 ; 2689, ♂, Tobrang (8500 ft.), 2. 9 ; 2787–2789, 3 ♂♂, Dib La (11,000 feet), 13. 9 ; 3144, ♀, Gamri Chu (7500 ft.), 28. 10 ; 3147, ♂, Gamri Chu (7500 ft.), 28. 10 ; 3176, ♀, Yönpu La (8000 ft.), 2. 11.

A silent, sedentary, skulking bird which is generally found in thick bamboo-jungle. When fired at or alarmed it seeks safety in the dense thickets in which it is found, and I cannot recall a single instance of a flight of more than 20 yards.

Suthora fulvifrons fulvifrons.

2003, ♀, Yuto La (11,000 ft.), 9. 7 ; 2019, ♀, Rudo La (11,000 ft.), 19. 7 ; 2784–2786, ♀♂♀, Dib La (11,000 ft.), 13. 9 ; 2817, ♂, Dib La (10,500 ft.), 17. 9.

Recorded from Nepal and Sikkim in the 'Fauna,' to which must now be added Bhutan ; and since specimens were obtained

on the extreme eastern frontier it will probably be found at a later date in the tribal country of the N.E. Frontier Tract.

Not seen below 10,000 feet, and always in bamboo thickets.

This delightful little bird is utterly fearless of man. Its call is a faint mouse-like "cheep," which is constantly uttered as it flits from stem to stem. The iris is red-brown, not merely brown as stated in the 'Fauna.'

[2 ♂♂, wing 56 mm. ; 3 ♀♀, 55 mm.]

***Suthora poliotis poliotis* ≥ *Suthora poliotis humii*.**

3186, 3187, ♀♂, Yönpu La (8000 ft.), 2. 11 ; 3264–3266, ♀♀♂. Satsalor (4000 ft.), 9. 11.

We saw these birds twice, and on each occasion they consisted of a large party. The behaviour of the birds in these two parties differed. The Yönpu La party suddenly appeared from nowhere, showed tremendous activity, and disappeared in a flash the moment I fired. The Satsalor flock were as tame, confiding, and as reluctant to take wing as *fulvifrons*. Both parties were found in mixed deciduous and bamboo-jungle. In size, coloration, and habits these birds reminded me forcibly of the Bearded Reedling of the Tarim Basin.

[Of these specimens no. 3186 is typical *S. p. humii*, but no. 3187 has the yellow on the cheeks much reduced. The remaining three specimens probably represent *Suthora daflaensis* Godwin-Austen, from Toruputi Peak, Dafla Hills, described and figured in J. As. Soc. Bengal, xlv. p. 72, 1867. The type is a very bad skin, and resembles rather closely specimens from the Naga Hills and Manipur, which are said to be the same as *S. p. poliotis* Blyth, from the Khasia Hills. Mr. Ludlow's specimens, however, have no grey on the sides of the breast and are certainly nearer the Dafla Hills bird in this respect than the typical. For the present I think it advisable to list them as intermediate until more specimens are forthcoming.]

[*Psittiparus gularis gularis*.

Baker in the 'Fauna,' i. p. 118, gives the type-locality as Sikkim ! Gray and Mitchell figured this bird in the 'Genera of Birds,' ii. p. 389, 1845, and used Horsfield's MS. name,

Paradoxornis gularis, which he had given to the single specimen in the East India Company's Museum, sent home by Capt. Pemberton from Bhutan in 1845.]

[*Psittiparus ruficeps ruficeps*.

Two examples are recorded by Horsfield and Moore as obtained by Pemberton in Bhutan. This species was described by Blyth from two specimens he saw from Bhutan in 1842. Apparently they were the two which came to the East India Company's Museum, one of which, the co-type, is now in the British Museum. Selater, *Ibis*, 1892, p. 74, and Finn, 'List of Birds in the Indian Museum,' 1901, p. xii, give the type in that Museum as from Darjeeling, which is wrong.]

***Sitta himalayensis*.**

1682, ♂, Gangtok (5800 ft.), 2. 5 ; 1967, 1969, ♀♂, near Trongsa (7500 ft.), 4. 7 ; 2061, 2062, ♀♂, Donga La, 25. 7 ; 2106, ♂, Trashiyangsi (8000 ft.), 28. 7 ; 2140, ♂, Trashiyangsi (8000 ft.), 1. 8 ; 2253, ♂, Khoma Chu Valley (7500 ft.), 15. 8 ; 2413, ♂, Jiri Chu Valley (6500 ft.), 26. 6 ; 2646, ♂, Trashiyangsi (8000 ft.), 29. 8 ; 2926, ♂, Trashiyangsi (8000 ft.), 27. 9 ; 3007, ♂, Trashiyangsi (6000 ft.), 9. 10 ; 3131, ♂, Gamri Chu (7500 ft.), 27. 10.

Common and well distributed throughout Bhutan. Found most frequently in oak and deciduous forest between 6000 and 9000 feet.

[Two examples in the Pemberton collection. The Tonkin bird may turn out to be a small race. A male and female measure : wing 67 mm., bill from skull 15-15.5 ; one from Yunnan 67, 15.5 ; another from S. Shan States 69, 15 ; and one from Mt. Victoria 75, 17. 11 ♂♂, as above : wing 69-75 mm., bill 16-17.5 ; 2 ♀♀, 73-74, 16.5.]

***Sitta castanea cinnamoventris*.**

3297, ♂, Diwangiri (2000 ft.), 12. 11.

This Nuthatch is said in the 'Fauna' to be most common between 4000 and 7000 feet. This was not our experience. We spent many days at these altitudes, but saw no specimens until we reached Diwangiri. Stevens considers 6000 feet

to be "too great an extreme limit for Sikkim." However, Meinertzhagen (Ibis, July 1927, p. 411) records it in Sikkim at 5600 feet in winter.

Godwin-Austen obtained *Sitta formosa* in the Daffa Hills at 5000 feet. We did not see it.

[♂ and ♀ in the Pemberton collection.]

Dryonastes ruficollis.

3322, 3323, ♀♀, Diwangiri (2000 ft.), 13. 11.

Common in cultivated areas at Diwangiri. Not seen elsewhere.

Dryonastes caerulatus caerulatus.

2133, 2134, ♂♀, Trashiyangsi (6500 ft.), 31. 7; 2403, ♂, Chungkar (5000 ft.), 26. 6; 2729, ♀, Trashiyangsi (6000 ft.), 7. 9; 2911, ♀, Trashiyangsi (8000 ft.), 27. 9.

A rather silent bird, local in its distribution.

[The last three birds show rather more white than usual on the ear-coverts. Nos. 2133 and 2134 are juveniles, slightly darker than adults; thighs brownish and under tail-coverts brown, not white.]

Garrulax leucolophus hardwickii. (Ticehurst, Bull. B. O. C. xlv. p. 113, 1926 : Naga Hills.)

3158, 3159, ♂♀, Gamri Chu (3000 ft.), 31. 10; 3319, ♀, Diwangiri (2000 ft.), 12. 11.

Not seen in 1933, as we were generally too high for it. Noted up to 4000 feet in East Bhutan.

[These birds belong to the dark eastern race and are not intermediate like Sikkim birds. In the Indian Museum Calcutta, there is an example, obtained by the Hon. A. Eden in Eastern Bhutan, which probably belongs to the typical race. Unfortunately, in the 'Fauna' (viii. p. 599) the distribution of this race is given as Garhwal and N.W. Himalayas, which is wrong, and should be Bhutan, Assam, and N. Burma.]

Garrulax pectoralis pectoralis.

3232, 3233, ♂♂ Chungkar (3000 ft.), 6. 11; 3324, ♀, Diwangiri (2000 ft.), 13. 11.

A stronger flier than most Laughing-Thrushes.

Garrulax moniligera moniligera.

3324, ♂, Diwangiri (2000 ft.), 14. 11.

[A single female in the Pemberton collection.]

Garrulax gularis. (Plate VII.)

3309, ♂, Diwangiri (2000 ft.), 12. 11; 3325, 3329, 3330,

♀♀♂, Diwangiri (2000 ft.), 13. 11.

Obtained in dense undergrowth. We found this Laughing-Thrush more reluctant to fly than any other. When we compared our birds with the description in the 'Fauna' we were convinced we had secured a new race. But the remarkable difference in colour, so Mr. Kinnear informs me, is due to fading, and the description in the 'Fauna' presumably applies to old skins.

Diwangiri must be very near the western limit of this bird's range.

[The colour of this species fades in skins, and the plate (49) in vol. iii. of Gould's 'Birds of Asia' is not sufficiently bright.

McClelland's Laughing-Thrush was discovered by Dr. John McClelland when he accompanied Drs. Wallich and Griffith on a deputation to study the tea forests, as they were called, in Assam. The deputation travelled *via* the Khasia Hills to Sadiya, and from there Griffith and McClelland made an expedition to the Naga Hills. There is nothing on record to say where McClelland obtained his different specimens, and no locality other than Assam is given in his paper in the 'Proceedings of the Zoological Society,' 1839, p. 150.

Mr. Baker has restricted the type-locality to Cachar, but McClelland does not seem to have visited that district, and Sadiya would probably be more likely.

According to the 'Fauna' (vol. i. p. 152), this bird is rare in the Khasia Hills, where Jerdon obtained a specimen in 1862 (the bird figured by Gould). Hume did not meet with it in Manipur, and apparently was unaware that Godwin-Austen obtained a single specimen at Suntung. There are several specimens in the Museum from near Sadiya, one as low as 300 feet, taken by Cockburn and Godwin-Austen, and farther west the latter obtained two at Borpani, in the

Dafra Hills, but considered it rare, "never to range higher than 2000 feet." Baker, 'Nidification of Birds,' says it breeds freely in N. Cachar between 4000 and 6000 feet, but is hardly ever found below 2900 feet in winter. In Stevens's experience, though absent from the plains, it is confined to the base of the hills in N. Assam.]

Garrulax albogularis albogularis.

1791, ♂, Sharithang (10,500 ft.), 22. 5 ; 1796, ♀, Sharithang (11,000 ft.), 24. 5 ; 1815, ♂, Sharithang (11,000 ft.), 26. 5 ; 2120, ♂, Trashiyangsi (6000 ft.), 30. 7 ; 2684, ♀, Tobrang (8000 ft.), 1. 9.

Baker ('Fauna,' i. p. 153) says this bird does not occur in Bhutan—a rash statement to make when he had only the Pemberton collection to go upon. As a matter of fact, it is undoubtedly the commonest Laughing-Thrush in Bhutan within its zone of distribution, and we must have seen it nearly every day we spent within this zone.

The bird annoyed us intensely. Time and again a movement in a tree or bush, a faint squeak, or an imperfect view, would make us pause expectantly, and then would follow a torrent of sibilant notes from a multitude of Whitethroats, and we would remark "only *albogularis*"—using at times much stronger language. It shows less fear of man than any other Laughing-Thrush I know of except, possibly, *Trochalopteron affine affine*, and just moves ahead or to one side of the intruder. We found it more often in thick forest than in open scrub, but it does not shun the latter. Even in the breeding-season it seems to be gregarious, and we seldom came across isolated pairs. The gregarious habit, so strongly developed in this bird, must be of enormous advantage in detecting danger. With a dozen or score of keen eyes peering everywhere, what enemy could surprise it ?

[Baker's remarks that this bird is not found in Bhutan is copied from the first edition of the 'Fauna.' There is a female in the Museum from that country collected by Pemberton, as already recorded in the Catalogues of the British Museum and Indian Museum.]

Ianthocincla ocellata ocellata.

1856–1858, ♀♀♂, Damthang (10,500 ft.), 2. 6 ; 1892, 1893, ♂♀, Damthang (10,500 ft.), 9. 6 ; 2459, ♀, Sakden (9000 ft.), 3. 7 ; 2793, ♂, Dib La (11,000 ft.), 14. 9 ; 3060, ♀, Sakden (9000 ft.), 19. 10.

Throughout Bhutan between 7000 and 11,000 feet in summer. In the breeding season it has a piercing eight-syllabled call which, like many other bird-notes, I cannot render intelligible in print. Not uncommon, but not a conspicuous bird, and one more addicted to bushes and shrubbery than trees.

[One was obtained by the native collector of the Second Mt. Everest Expedition in the Chumbi Valley in May 1924.]

Ianthocincla rufogularis rufogularis.

2053, ♀, Linji (6500 ft.), 24. 7 ; 2446–2448, ♂♀♂, Gamri Chu (5000 ft.), 1. 7 ; 2950, ♂, Trashiyangsi (6000 ft.), 1. 10 ; 3017, ♂, Trashiyangsi (6000 ft.), 12. 10 ; 3219, ♂, Khomanagri (4000 ft.), 5. 11 ; 3280, ♂, Satsalor (3000 ft.), 10. 11.

An arrant skulker in dense thickets and scrub-jungle on the borders of cultivation between 3000 and 6000 feet.

Meinertzhagen (Ibis, Oct. 1927, p. 572) obtained specimens in Sikkim at 11,600 feet *in winter*, whilst Stevens records it from the low valleys not above 4500 feet.

[Two specimens were in the Pemberton collection, but now there is only one in the Museum.]

Trochalopteron erythrocephalum nigrimentum.

2091, ♂, Donga La (10,000 ft.), 26. 7 ; 2113, 2114, ♂♀, Trashiyangsi (8000 ft.), 28. 7 ; 2156, ♀, Lao, Trashiyangsi Valley (9000 ft.), 2. 8 ; 2226, 2227, ♂♂, Lao, Trashiyangsi Valley (9000 ft.), 11. 8 ; 2460, ♀, Sakden (9000 ft.), 3. 7 ; 2783, ♂, Dib La (11,000 ft.), 13. 9 ; 2824, ♀, Dib La (11,000 ft.), 17. 9.

I have no record of this bird below 7000 feet in summer. A bird of dense jungles, neither obtrusive nor very gregarious.

[All the specimens of this race in the Hodgson collection were received in 1848 and 1859, after Hodgson had left Nepal in 1843 and gone to live at Darjeeling, and are, therefore, almost certain to have come from Sikkim. East Nepal should accordingly be deleted from the range of the present race. Pemberton obtained two examples.]

Trochalopteron affine affine.

1699, 1700, ♂♀, Changu (11,000 ft.), 6. 5, 1722, ♀, Changu (11,500 ft.), 9. 5; 1820, ♂, Sharithang (11,500 ft.), 27. 5; 1922, ♀, Ha (11,500 ft.), 17. 6; 2491, ♂, Sakden (10,000 ft.), 8. 7; 2568, ♀, Mago (11,500 ft.), 7. 8; 3061, ♂, Sakden (9000 ft.), 19. 10.

Not seen below 8000 feet in summer. It goes higher than any other Laughing-Thrush, and I have records of it from the Me La and Kang La in dwarf rhododendrons up to 14,000 feet. A tame bird, and very common throughout Bhutan.

[Two examples in the Pemberton collection.]

[Trochalopteron squamatum.

One example in the Pemberton collection.]

[Trochalopteron phœniceum phœniceum.

One example in the Pemberton collection.]

Trochalopteron lineatum imbricatum.

1944, ♂, near Trongsa (7500 ft.), 6. 7; 2031, 2034, ♂♂. Khane Lhakang, Kuru Chu Valley (8000 ft.), 20. 7; 2151-2153, ♂♀♂, Tobrang (8000 ft.), 2. 8; 2228, ♂, Tobrang (8000 ft.), 12. 8; 2410, ♂, Jiri Chu Valley (6500 ft.), 26. 6; 2416, ♀, Yönpu La (8000 ft.), 27. 6; 2683, ♂, Tobrang (8000 ft.), 1. 9; 2921, ♀, Trashiyangsi (8000 ft.), 27. 9; 3239, ♀, Chungkar (6000 ft.), 7. 11.

Seen for the first time at Chendebi, near Trongsa. Probably the Black Mountain Range forms its western boundary. From Trongsa eastwards it was common between 5000 and 8000 feet. It avoids dense forest, and is found most commonly in thick scrub on the borders of cultivation, though it also inhabits bushes and long grass in uncultivated areas. The habits of this bird are similar to those of the other races.

[A male and two unsexed birds in the Pemberton collection. This bird was originally described by Blyth (J. As. Soc. Bengal, xii. p. 951, 1843) from a specimen collected during Capt. Pemberton's Mission to Bhutan. There is also a female from Senchu La, Buxa Duars, obtained by Lt.-Col. L. A. Waddell in May 1892. All the specimens of this race in the

Hodgson collection were received in 1848 and 1859, and, therefore, probably came from Sikkim, since Hodgson left Nepal in 1843. Eight males, 77–82 mm.; four ♀♀, 75–79.5 mm.]

Grammatoptila striata sikkimensis. (Ticehurst, Bull. B. O. C. xlv. p. 104, 1924 : Sikkim.)

2457, 2458, ♀♂, Gamri Chu (5500 ft.), 2. 7; 2655, ♀, Tobrang (8000 ft.), 30. 8; 2738, 2739, ♀♂, Trashiyangsi (7000 ft.), 9. 9; 3009, ♀, Trashiyangsi (6000 ft.), 10. 10.

We did not meet with this bird in 1933, and I have records from East Bhutan only, where it is quite common. Its normal habitat is in thick rain-forest, though I have shot it in scrub as well. It possesses a wonderful repertoire of notes and calls.

[One of the Gamri Chu birds is typical *sikkimensis*, while the other has the band on the head almost as much developed as in *G. s. austeni* Oates, from the Daffa Hills. The remaining birds are intermediate, but one in the Pemberton collection is *sikkimensis*.]

Pomathorhinus ruficollis ruficollis.

1968, ♀, near Trongsa (8000 ft.), 4. 7; 1998, ♂, Trongsa (7500 ft.), 7. 7; 2054, o, Linji (6500 ft.), 24. 7; 2715, o, Tobrang (8000 ft.), 4. 9; 2915, 2929, ♀o, Trashiyangsi (8000 ft.), 27. 9; 3192, ♂, Yönpu La (8000 ft.), 3. 11; 3255, ♂, Chungkar (6000 ft.), 8. 11.

We found this bird tolerably common in Central and East Bhutan both in thick forest and in more open country. Not noticed above 8000 feet.

[Pemberton collected two specimens in Bhutan.]

Pomatorhinus erythrogenys haringtoni.

3166, ♂, Gamri Chu (3000 ft.), 31. 10; 3211, ♂, Khomanagri (4000 ft.), 5. 11.

Obtained both in thick forest and in open scrub. It has a loud, resonant alarm-note. We did not see either *schisticeps* or *ferruginosus*, both of which are likely to occur in Bhutan.

[According to Baker this Scimitar-Babbler does not occur east of Sikkim, but Oates, correctly, includes Bhutan in the

distribution, since there are two of Pemberton's birds in the Museum.]

[*Pomatorhinus schisticeps schisticeps*.

One example in the Pemberton collection.]

***Xiphiramphus superciliaris superciliaris*.**

2775, 2776, ♂♂, Dib La (11,000 ft.), 12. 9 ; 2813, ♂, Dib La (11,500 ft.), 16. 9 ; 2822, ♀, Dib La (11,000 ft.), 17. 9 ; 2846, ♂, Dib La (11,500 ft.), 20. 9 ; 3145, 3146, ♂♂, Gamri Chu (7500 ft.), 28. 10 ; 3156, ♀, Gamri Chu (6000 ft.), 29. 10.

We found this Scimitar-Babbler quite common in thick bamboo growth at 11,000 feet on the East Bhutan frontier in September. Six weeks later we found it as low as 6000 feet in dense bramble-thickets near Trashigong. It is a shy, restless bird, and keeps well out of sight as it flits from bush to bush or from one bamboo clump to another. Its call is a pleasing ripple of whistling notes. Stomach-contents contained the remains of insects, but at times it feeds on fruit, and no. 2846 was seen to swallow a whole raspberry just before it was shot. The iris is not red-brown or vermilion as stated in the 'Fauna,' but *pale grey*.

[Oates, in the 'Fauna,' gives the distribution of this bird as Sikkim, and a single specimen from the Manipur Hills. Baker adds Bhutan to the distribution, on what authority I do not know, and the Khasia and Cachar Hills, where he met with it himself.

4 ♂♂, wing 75-83 mm. ; bill from skull 43-57.5.

2 ♀♀, wing 76 mm. ; bill from skull 48.

An unusual bird from Manipur measures, wing 80 mm. and bill 50.5, and a male from Tonkin, identified by Delacour as *X. s. forresti* Rothschild, has a wing of 80 mm. and a larger bill, 57.5.]

***Pellorneum ruficeps mandelli*.**

3351, ♀, Diwangiri (2000 ft.), 14. 11.

We were generally too high for this bird in Bhutan, and only saw it in the thick Diwangiri jungles.

[Recorded from Bhutan and Buxa Duars, but not from Bhutan proper.]

Pellorneum ignotum ignotum.

3327, 3328, ♂♀, Diwangiri (2000 ft.), 13. 11.

A skulker in thick bamboo growth.

[The Assam Babbler has not hitherto been found west of Dejoo, at the base of the Dafla Hills in Lakhimpur, where Stevens collected four birds. He also got a specimen at Margherita. The type comes from Dollah, near Sadiya, and there is in the Museum another from Dihing Bridge, collected by Waddell in June 1892. Godwin-Austen, the same year as Hume gave the name *ignotum* to the species, described *Turdinus nagaensis* (Ann. Mag. Nat. Hist. xx. p. 519) from the East Naga Hills. In all he collected three specimens—the type, one from the Naga Hills, and another from Sengmai. Manipur Valley. These specimens appear to have less white on the belly and the underside generally darker. The skins, however, are very badly made up, and that may account for the apparent difference. There is also a single skin in the Museum from Hensein, N. Chin Hills, collected by C. Hopwood in May 1914, and not recorded by Baker in the 'Fauna.'

8 ♂♂, wing 57·5–60 mm. ; bill from skull 14·5–15 ; tail 47–58·5.

2 ♀♀, wing 56–58 mm. ; bill from skull 14–14·5 ; tail 40–42.]

Stachyris nigriceps nigriceps.

3201, ♂, Jiri Chu (3000 ft.), 4. 11 ; 3281, ♀, Satsalor (3000 ft.), 10. 11 ; 3343, ♀, Diwangiri (2000 ft.), 14. 11.

Fairly common from 3000 feet downwards near Diwangiri. [A single specimen in the Pemberton collection.]

Stachyris chrysæa chrysæa.

3257–3259, ♂♂, Chungkar (6000 ft.), 8. 11.

In flocks in dense scrub.

Stachyridopsis ruficeps ruficeps.

2035, ♂, Khane Lhakang (8000 ft.), 21. 7 ; 2109, ♂, Trashiyangsi (7500 ft.), 28. 7 ; 2139, o, Trashiyangsi (6500 ft.), 1. 8 ; 2714, o, Tobrang (8000 ft.), 4. 9 ; 2747, ♂, Dib La (8000 ft.), 10. 9 ; 2908, ♂, Trashiyangsi (8000 ft.), 26. 9 ; 2914, o,

Trashiyangsi (8000 ft.), 27. 9 ; 2942, ♂, Trashiyangsi (8000 ft.), 29. 9 ; 3153, ♂, Gamri Chu (6000 ft.), 29. 10 ; 3301, ♂, Diwangiri (2000 ft.), 12. 11.

Common in summer in East Bhutan between 5000 and 8000 feet.

Alcippe nipalensis nipalensis.

3244, 3246, 3254, ♂♀, Chungkar (6000 ft.), 7. 11 ; 3292, ♀, Satsalor (2000 ft.), 11. 11.

In thick scrub in large parties. Very restless.

Pseudominla castaneiceps castaneiceps.

1689, o, Gangtok (6000 ft.), 5. 5 ; 1941, ♂, Dokyong La, 30. 6 ; 2150, ♀, Trashiyangsi (7500 ft.), 2. 8 ; 2395, 2396, ♂♀, Chungkar (6000 ft.), 24. 6 ; 2856, 2857, oo, Dib La (9000 ft.), 21. 9 ; 2900, ♀, Trashiyangsi (8000 ft.), 25. 9 ; 2957, ♂, Sana (8000 ft.), 3. 10 ; 3042, ♀, Gamri Chu (5000 ft.), 16. 10 ; 3154, o, Gamri Chu (6000 ft.), 29. 10 ; 3179, ♂, Yönpu La (8000 ft.), 2. 11.

A very common bird in Bhutan in summer between 6000 and 10,000 feet. In the 'Fauna' the upper limit of its range is stated to be 7000 feet, but it goes much higher than this in Bhutan. It collects in large flocks in the autumn, when it is very active. A bird of dense forests.

[Two juveniles are duller above than the adults, with sides of the breast and flanks greenish-brown ; postocular streak white, without any yellowish tinge : 3 ♂♂, 56-57 mm. ; 2 ♀♀, 56.5.]

Fulvetta vinipectus vinipectus.

1767, 1768, ♂♂, Yatung (9800 ft.), 15. 5 ; 1777, ♂, Yatung (9800 ft.), 19. 5 ; 1891, ♀, Damthang (10,000 ft.), 7. 6 ; 1913, ♂, Damthang (10,000 ft.), 13. 6 ; 1976, o, Trongsa (8000 ft.), 4. 7 ; 1979, 1980, ♀♂, Trongsa (11,000 ft.), 5. 7 ; 2007, ♀, Yuto La (11,500 ft.), 9. 7 ; 2024, 2025, oo, Rudo La (10,500 ft.), 19. 7.

Common in Bhutan in summer between 7500 and 11,000 feet, especially in rhododendron jungle. We did not meet with it east of the Rudo La, where it was replaced by the next species.

[Baker in the 'Fauna' (i. p. 290) states that this bird is found as far east as Assam, north of the Brahmaputra, but in his 'Handlist,' 1921, confines the distribution to Nepal and Sikkim. I know of no record farther east than Bhutan.

This species is divided into the following races:—*F. v. vinipectus* Hodgson: Nepal, Sikkim, and E. Bhutan; *F. v. kangrae* Ticehurst: N.W. Himalayas; *F. v. austeni* (Ogilvie-Grant): Naga Hills and Manipur; *F. v. ripponi* (Harington): Chin Hills; *F. v. valentinæ* (Delacour): Tonkin; *F. v. bieti* (Oustalet): N.W. Yunnan, W. Szechuan, S.E. Tibet, and N.E. Burma.]

Fulvetta ludlowi. (Kinnear, Bull. B. O. C. lv. p. 134, 1935: Sakden, Bhutan.) (Plate VII.)

2756, ♀, Dib La (11,000 ft.), 10. 9; 2769, 2770, ♀♂, Dib La (11,000 ft.), 11. 9; 2836, 2837, ♀♂, Dib La (11,000 ft.), 19. 9; 3058, ♂, Sakden (9000 ft.), 19. 10; 3066–3068, ♂♂♀, Sakden (9000 ft.), 20. 10; 3109, ♀, Sakden (9000 ft.), 24. 10; 3118, 3119, ♀♂, Gamri Chu (7500 ft.), 27. 10; 3140, 3141, ♂♀, Gamri Chu (7500 ft.), 28. 10; 3188, ♀, Yönpu La (8000 ft.), 3. 11; 3205, ♀, Jiri Chu (8000 ft.), 4. 11.

This *Fulvetta* was quite common in bamboo and rhododendron forest on the extreme eastern frontier of Bhutan between 7500 and 11,000 feet.

In its habits it is very similar to *vinipectus*, and is quiet, slow in its movements, and at times remarkably tame. We found them in small parties of six to ten individuals in the autumn.

[*Description* (male and female).—Head chocolate-brown, sides of head and nape reddish-brown; mantle slightly paler than head; rump, scapulars, and upper tail-coverts ochraceous brown; primaries black, 4 and 5 edged with white; secondaries blackish-brown edged with fulvous; tail the same colour as back and edged with ochraceous on the outer margins. Throat white, heavily streaked with brown; rest of underside grey, with the exception of the flanks, thighs, vent, and under tail-coverts, which are pale ochraceous-brown. A juvenile is similar in colour, but slightly paler.

Colour of soft parts.—Bill dark horn, fleshy at base of lower mandible; feet fleshy brown; iris brown.

Measurements.—6 ♂♂, wing 59–64 mm.; 8 ♀♀, wing 56–60 mm.

Remarks.—From *F. v. vinipectus* this species differs in the absence of the white line above the black one, which extends from above the eye to the nape; and differs from *F. manipurensis* in possessing a white throat.]

Lioparus chrysotis chrysotis.

2861, 2865, 2866, 3 ♀♀, Dib La (9000 ft.), 22.9; 3123–3127, ♀♀♀♀, Gamri Chu (7500 ft.), 27.10.

Seen twice in East Bhutan. On each occasion in thick bamboo growth. They were in large parties of twenty to thirty individuals. All the specimens we were able to sex were females.

Leioptila capistrata capistrata.

1684, ♂, Gangtok (6000 ft.), 2.5; 1686, ♀, Gangtok (6000 ft.), 4.5; 1946, ♀, Dokyong La (8500 ft.), 30.6; 1977, ♀, near Trongsa (6500 ft.), 4.7; 2000, ♀, Trongsa (7000 ft.), 7.7; 2678, ♀, Tobrang (8000 ft.), 1.9; 3132, ♀, Gamri Chu (7500 ft.), 27.10.

Common in deciduous forest throughout Bhutan between 4000 and 8000 feet. It possesses a large variety of notes, and insists on being heard and seen. We bracketed it with *Garrulax a. albogularis* as the most prominent bird of the forest within its zone of distribution.

[A skin in the Pemberton collection. The Black-headed Sibia has been divided in the Himalayas into two races—*L. c. capistrata* (Sikkim and Bhutan) and *L. c. pallida* (Murree and Kumaon). Kumaon specimens are intermediate between *pallida* (type-locality Simla) and *capistrata* (Sikkim). In Nepal there is a very rufous bird in which the dark saddle on the back is suffused with rufous, and in the Museum are five specimens of this type collected by Scully, and two of Hodgson's, including the type of *Sibia nigriceps* Hodgson (J. As. Soc. Bengal, xl, p. 182). In addition, there is a single skin from "Kumaon," collected by Strachey, which closely resembles this red type. It is true there are two of Hodgson's specimens which are the ordinary *L. c. capistrata* colour, but they may have come from Darjeeling, as did most of his later collections.

There is also a typical skin from Nepal Dalka, taken by Mandelli's native collectors. Whether this bird is a separate race or not at present it is impossible to say.]

Leioptila annectans annectans.

3299, ♀, Diwangiri (2000 ft.), 12. 11.

The type-locality is Darjeeling, but in the western portion of its range it must be rare, for Stevens, who worked Sikkim very thoroughly for a number of years, did not meet with it. We saw it only on this one occasion. The specimen obtained was one of a small party feeding on the topmost branches of a high tree in thick forest.

Actinodura egertoni egertoni.

2404, juv., Chungkar (5000 ft.), 25. 6; 3011-3013, 3 ♀♀, Trashiyangsi (5500 ft.), 11. 10; 3272, 3273, ♀♂, Satsalor (6000 ft.), 9. 11; 3274, 3275, ♀♂, Satsalor (3500 ft.), 9. 11.

In small parties in dense thickets. Stevens compares it with the Laughing-Thrushes in many of its habits, and with this I agree. When first seen I mistook this bird for *Trochilopteron l. imbricatum*.

[Heterophasia picaoides picaoides.

One example in the Pemberton collection.]

Sibia nipalensis nipalensis.

2084, ♀, Donga La (10,000 ft.), 26. 7; 2688, ♂, Tobrang (8500 ft.), 2. 9; 2853-2855, ♂♀♀, Dib La (9000 ft.), 21. 9; 2960, ♂, Sana (8000 ft.), 3. 10; 2970, ♂, Sana (8000 ft.), 4. 10; 3193, ♀, Yönpu La (8000 ft.), 3. 11.

Fairly common in mixed deciduous and conifer forest between 7000 and 10,000 feet. It seems to feed chiefly on insects concealed in the mossy growth adhering to the trunks and branches of various trees.

[One skin in the Pemberton collection. These birds are typical *nipalensis*, and do not approach *daflaensis* Godwin-Austin from the Dafla Hills. It is doubtful if that bird is a race of *nipalensis*, since it is streaked below instead of plain, and the chest-feathers are uniform and not with paler centres.]

Siva strigula strigula.

1690, ♀, Gangtok (6500 ft.), 5.5; 1942, ♂, Dokyong La (10,400 ft.), 30.6; 1970–1972, ♂♀♀, near Trongsa (8000 ft.), 4.7; 2015, 2016, ♂♂, Rudo La (10,500 ft.), 19.7; 2078, 2079, ♂♂, Donga La (10,000 ft.), 26.7; 2155, ♂, Trashiyangsi Valley (9000 ft.), 2.8; 2462, ♀, Sakden (9000 ft.), 3.7; 2488, ♂, Sakden (10,000 ft.), 8.7; 2774, ♀, Dib La (11,000 ft.), 11.9.

Common throughout Bhutan between 6000 and 11,000 feet. [Two birds in the Pemberton collection.]

Siva cyanouroptera cyanouroptera.

1688, ♂, Gangtok (6000 ft.), 4.5; 3283, ♀, Satsalor (3000 ft.), 10.11.

Scarce. Inhabits a lower zone than *strigula*.

[The female in fresh plumage is flushed with yellow on the underside. A single specimen in Pemberton's collection.]

Yuhina gularis gularis.

1938, ♂, Dokyong La (10,000 ft.), 30.6; 1982, ♂, near Trongsa (11,000 ft.), 5.7; 2009, ♀, Yuto La (11,000 ft.), 9.7; 2067, ♀, Donga La (10,000 ft.), 25.7; 2160, ♀, Shingbe (10,000 ft.), 3.8; 2225, ♂, Trashiyangsi Valley (11,000 ft.), 11.8; 2744, ♀, Trashiyangsi (8000 ft.), 9.9; 2767, ♂, Dib La (11,000 ft.), 11.9.

Recorded in the 'Fauna' as occurring "principally between 4000 and 7000 feet." This probably refers to its winter distribution. In summer we did not see it below 8000 feet, and found it most plentiful between 9000 and 11,000 feet. A spruce, lively bird, generally to be found in mixed conifer and rhododendron forest, though we obtained it also in low scrub near the summits of the minor passes west of Bumthang.

[Old skins in this species have become a warm brown on the upper side. The Yunnan bird has been separated by Rothschild as *griseotincta*, but the only difference between specimens collected by Forrest and Ludlow is that the former have a slightly greyer tinge on the throat and more pinkish on the breast. One specimen in the Pemberton collection.]

Yuhina occipitalis occipitalis.

1766, ♀, Yatung (9800 ft.), 15. 5 ; 1784, ♂, Sharithang (11,500 ft.), 21. 5 ; 1861, ♂, Damthang (10,000 ft.), 2. 6 ; 2010, ♂, Yuto La (11,000 ft.), 9. 7 ; 2461, ♂, Sakden (9000 ft.), 3. 7 ; 2681, 2682, ♂♀, Tobrang (8000 ft.), 1. 9 ; 3050, ♂, Sakden (9000 ft.), 18. 10.

The altitudinal range of this bird in summer agrees with that of the preceding species. Its habits, too, are very similar. It has a harsh, grating series of notes which it constantly utters in a most determined and business-like manner. When the rhododendrons are in bloom it derives much of its sustenance from their flowers.

[This race does not extend farther east than Bhutan, where Pemberton obtained it. Old skins in the Museum are considerably browner than the specimens listed above.]

Yuhina nigrimentum nigrimentum.

3210, ♀, Jiri Chu (3000 ft.), 4. 11.

Apparently confined to low altitudes, for the only occasion on which we met with it was in dense semi-tropical forest at 3000 feet.

[I can see no difference between this specimen and three birds collected by Forrest in Yunnan, and *intermedia* Roths. (Nov. Zool. 1923, xxx. p. 46) is, therefore, a synonym.]

Ixulus flavicollis flavicollis.

1963, ♂, near Trongsa (8000 ft.), 4. 7 ; 1987, juv., near Trongsa (7500 ft.), 6. 7 ; 1991–1993, ♀♀♂, near Trongsa (7500 ft.), 6. 7 ; 2041, ♂, Kuru Chu Valley (8000 ft.), 21. 7 ; 2391, 2392, ♂♂, Chungkar (6000 ft.), 24. 6 ; 2722, ♀, Tobrang (8000 ft.), 5. 9 ; 2978, ♀, Sana (8000 ft.), 5. 10 ; 2983, 2984, ♂♀, Sana (8000 ft.), 6. 10 ; 3142, ♀, Gamri Chu (7500 ft.), 28. 10 ; 3190, 3191, ♀♀, Yönpu La (8000 ft.), 3. 11.

Noted between 5000 and 8000 feet. Baker records *I. occipitalis* from Bhutan, but we did not meet with it.

[Two skins in the Pemberton collection. In freshly moulted birds the back is olive-brown, crest rich dark brown, sides of head greyish-brown ; below throat white, and the whole underside the same, with a strong wash of yellow. The old

skins in the collection have become considerably darker above, and the yellow has almost, if not quite, gone from below.]

Herpornis xantholeuca xantholeuca.

3206, ♂, Jiri Chu (3000 ft.), 4. 11.

Obtained in dense secondary growth, mixed up with a party of *Stachyris n. nigriceps*.

Leiothrix lutea calipyga.

1947, ♀, Dokyong La (9000 ft.), 30. 6 ; 1984, ♂, near Trongsa, 5. 7 ; 2032, ♂, Kuru Chu Valley (7000 ft.), 20. 7 ; 2696, 2697, ♀♀, Tobrang (8000 ft.), 3. 9 ; 2719, ♀, Tobrang (8000 ft.), 5. 9 ; 2896, o, Trashiyangsi (8000 ft.), 25. 9 ; 3004, ♂, Sana (8000 ft.), 8. 10.

A fairly common bird between 5000 and 8000 feet, especially in scrub and secondary growth on the outskirts of cultivation. It keeps close to the ground and scuttles through the undergrowth, uttering a succession of pretty whistling notes. It also has a harsh, hissing series of alarm notes.

[Two examples in Pemberton's collection.]

[*Cutia nipalensis nipalensis.*

One example in the Pemberton collection.]

Pteruthius erythropterus.

2001, ♂, Trongsa (5000 ft.), 7. 7 ; 2412, ♂, Jiri Chu (6500 ft.), 26. 6 ; 2953, o, Sana (8000 ft.), 2. 10.

Met with between 5000 and 8000 feet in thick forest. We found this bird rather scarce in Bhutan, but it is so slow and unobtrusive in its movements and habits that it is easily overlooked, and it may be commoner than we imagined.

[A male in the Pemberton collection.]

Pteruthius ænobarbus melanotis.

2994, 2995, ♂♂, Sana (8000 ft.), 7. 10.

Met with only on one occasion. According to Stevens and Baker this bird is always found in pairs, but the above two specimens were obtained out of a party of six or seven individuals which were associated with *Phylloscopi* and *Sylviparus*.

[A male in the Pemberton collection.]

Pteruthius xanthochloris xanthochloris.

1943, ♂, Dokyong La (8500 ft.), 30. 6 ; 3094, ♂, Sakden (9000 ft.), 22. 10 ; 3174, 3175, ♂♀, Yönpu La (8000 ft.), 2. 11 ; 3283, ♂, Yönpu La (8000 ft.), 3. 11 ; 3268, ♀, near Satsalor (6000 ft.), 9. 11.

Generally in pairs, but not always. Nos. 3174 and 3175 were shot out of a flock of ten to twelve individuals which were mixed up with *Phylloscopi* and *Pseudominla*.

Ægithina tiphia tiphia.

3336, 3337, ♂♀, Diwangiri (2000 ft.), 13. 11.

Only seen at Diwangiri.

Myzornis pyrrhoura.

2011, 2012, ♂♂, Rudo La (10,500 ft.), 19. 7 ; 2102, ♂, Donga La (11,000 ft.), 27. 7 ; 2161, ♂, Shingbe (11,000 ft.), 3. 8 ; 2830, 2831, ♀♂, Dib La (11,500 ft.), 18. 9 ; 2848, ♀, Dib La (12,000 ft.), 20. 9 ; 3070, ♂, Sakden (9000 ft.), 20. 10 ; 3204, ♀, Yönpu La (8000 ft.), 4. 11.

Found between 8000 and 12,000 feet, generally in rhododendron forest. This is a perfect little gem among birds—a living emerald. It is quiet, unobtrusive, generally in pairs, and always immaculately dressed. The crop of no. 2830 contained wild raspberries. The bill is jet-black, not dusky-brown as in the 'Fauna.'

[The above birds cannot be separated from Yunnan specimens. Males have a darker rust-coloured patch on the throat and chest than the females, and in the latter the green border to the feathers of the head is broader and lighter in appearance.]

Chloropsis hardwickii hardwickii.

1961, ♀, Wangdi Potrang (5000 ft.), 3. 7 ; 2379, ♀, Sedonchen (3500 ft.), 6. 10 ; 2400, ♂, Chungkar (5000 ft.), 25. 6 ; 3043, ♂, Gamri Chu (6000 ft.), 17. 10 ; 3296, ♀, Diwangiri (2000 ft.), 12. 11 ; 3347, ♂, Diwangiri (2000 ft.), 14. 11.

Moderately common between 2000 and 6000 feet.

[Male and female in the Pemberton collection. No. 2379 is a juvenile female in which a few yellow feathers on the breast and

blue moustachial streak are just beginning to show. In no. 1961 no yellow feathers are showing, and the moustachial streak is very pale, with no signs of turquoise-blue.]

Mesia argentauris argentauris.

3287, 3288, ♂♂, Satsalor (2000 ft.), 11. 11.

Seen only in tropical forest.

[One specimen in the Pemberton collection.]

Minla ignotineta.

1944, 1945, ♂♀, Dokyong La (10,400 ft.), 30. 6 ; 2056, 2057, ♂♂, Donga La (9500 ft.), 25. 7 ; 2154, ♂, Trashiyangsi Valley (9200 ft.), 2. 8 ; 2390, ♂, Chungkar (6000 ft.), 24. 6 ; 2858, ♂, Dib La (9000 ft.), 21. 9 ; 2966, 2967, ♂♀, Sana (8000 ft.), 4. 10 ; 3207, ♂, Jiri Chu (6000 ft.), 4. 11.

A common bird between 6000 and 10,000 feet in thick forest. Collects in large flocks in the autumn.

[A single example in the Pemberton collection.]

Criniger gularis flaveolus.

3230, 3231, ♀♂, Chungkar (3000 ft.), 6. 11 ; 3348, ♀, Diwangiri (2000 ft.), 14. 11.

In flocks in thick forest.

[One in the Pemberton collection.]

Microscelis psaroides psaroides.

1865, ♀, Damthang (10,000 ft.), 2. 6 ; 1885, ♂, Damthang (10,000 ft.), 6. 6 ; 2423, ♂, Gamri Chu (3250 ft.), 30. 6 ; 2445, ♂, Gamri Chu (5000 ft.), 1. 7 ; 2949, ♂, Trashiyangsi (6000 ft.), 1. 10.

A bird with a wide zonal distribution. Common in Bhutan, and observed in the Tawang and Mago districts of Tibet.

[I can see no difference between Sikkim and Bhutan birds and those from Manipur, Assam, and Chin Hills (*M. p. nigrescens* Baker, Bull. B. O. C. xxxviii. p. 15, 1917), if specimens in the same state of plumage are compared. There appears to be a good deal of variation in the colour. One specimen collected by Pemberton, and two males in the Chumbi Valley in July by the Mt. Everest Expedition.]

Ixos flavala flavala.

3276, 3277, ♀♂, Satsalor (3000 ft.), 10. 11.

I have nothing to add to the description in the 'Fauna.'

[Two skins brought back from Bhutan by Pemberton.]

Ixos maclellandii maclellandii.

2402, ♂, Chungkar (5000 ft.), 25. 6.

Shot in open scrub.

[One specimen in the Pemberton collection.]

Alcurus striatus.

2405, ♀, Chungkar (5000 ft.), 25. 6 ; 3261, ♀, Chungkar (6000 ft.), 8. 11.

In large parties.

Molpastes cafer bengalensis.

2119, ♂, Trashiyangsi (6000 ft.), 29. 7 ; 2429, ♂, Gamri Chu (3250 ft.), 30. 6.

Very common between 3000 and 6000 feet.

Molpastes leucogenys leucogenys.

2052, ♀, Lhüntse (3500 ft.), 24. 7 ; 3029, ♂, near Trashigong (3000 ft.), 13. 10 ; 3167, ♂, Gamri Chu (3000 ft.), 31. 10.

Inhabits the drier, barer valleys. Most abundant at 3000 feet, but seen up to 6000 feet (Trashiyangsi).

[Two skins in the Pemberton collection.]

Otocompsa jocosa emeria.

3298, ♂, Diwangiri (2000 ft.), 12. 11.

Common at Diwangiri, but not seen elsewhere.

In Bhutan, at any rate, this Bulbul does not occur at anything like the higher limits (7000 to 8000 feet) laid down in the 'Fauna,' and this seems to have been Stevens's experience in Sikkim also.

Otocompsa flaviventris flaviventris.

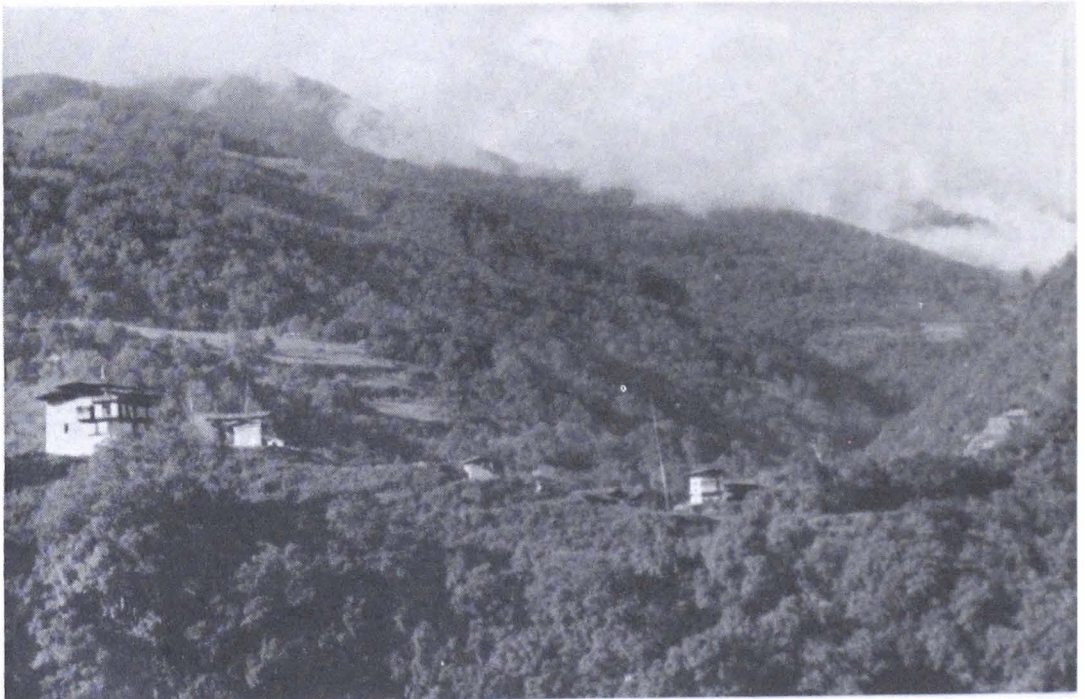
3279, ♂, Satsalor (3000 ft.), 10. 11.

Common at Satsalor, near Diwangiri, in thick scrub.

[Specimens in the Pemberton collection.]



Diwangiri Ravine (800 feet). Tropical Zone.



Trashiyangsi (6,000 feet). Deciduous Zone.



Mago (11,500 feet). Conifer Zone.



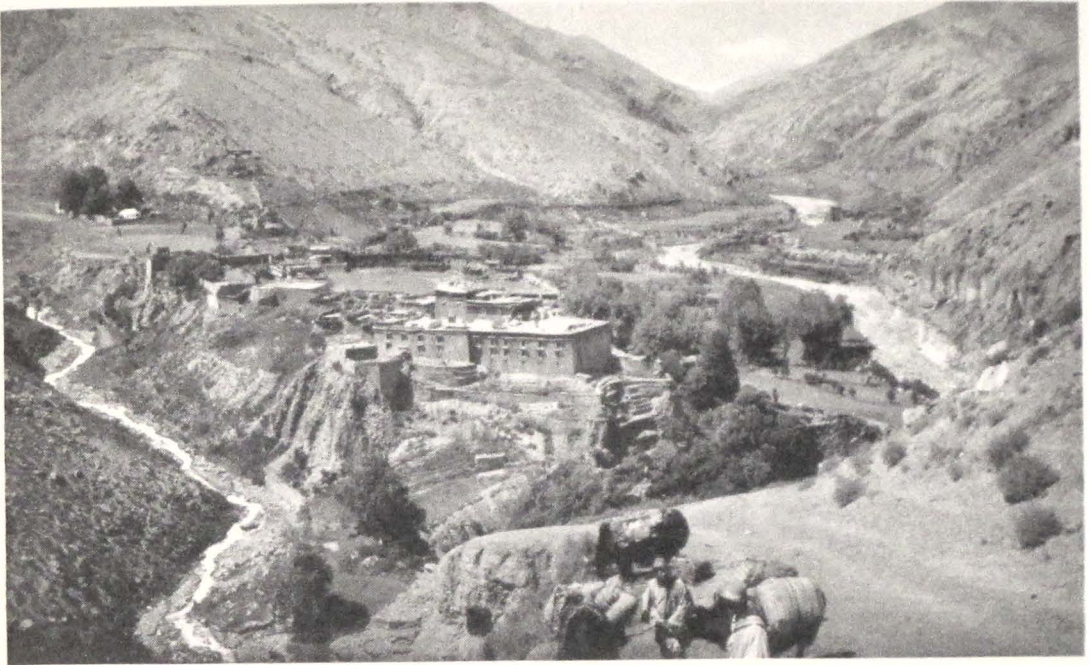
Sana (8,000 feet). Deciduous and Conifer Forest.



Mago (12,500 feet). Conifer and Rhododendron Zone.
Primulas in foreground.



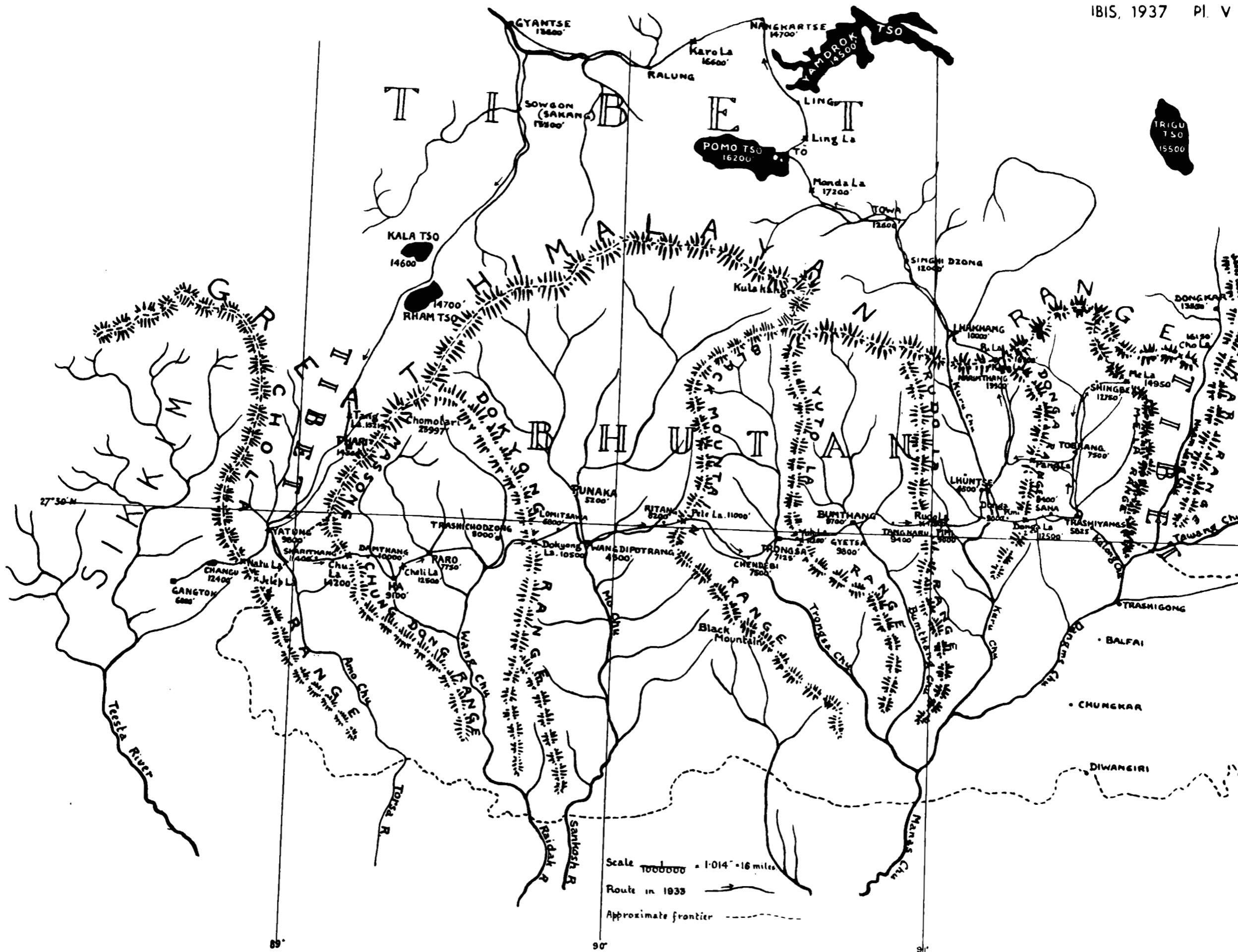
Rong Chi Valley, Tibet (12,500 feet). North face of Himalayan Range,
Transitional Zone.

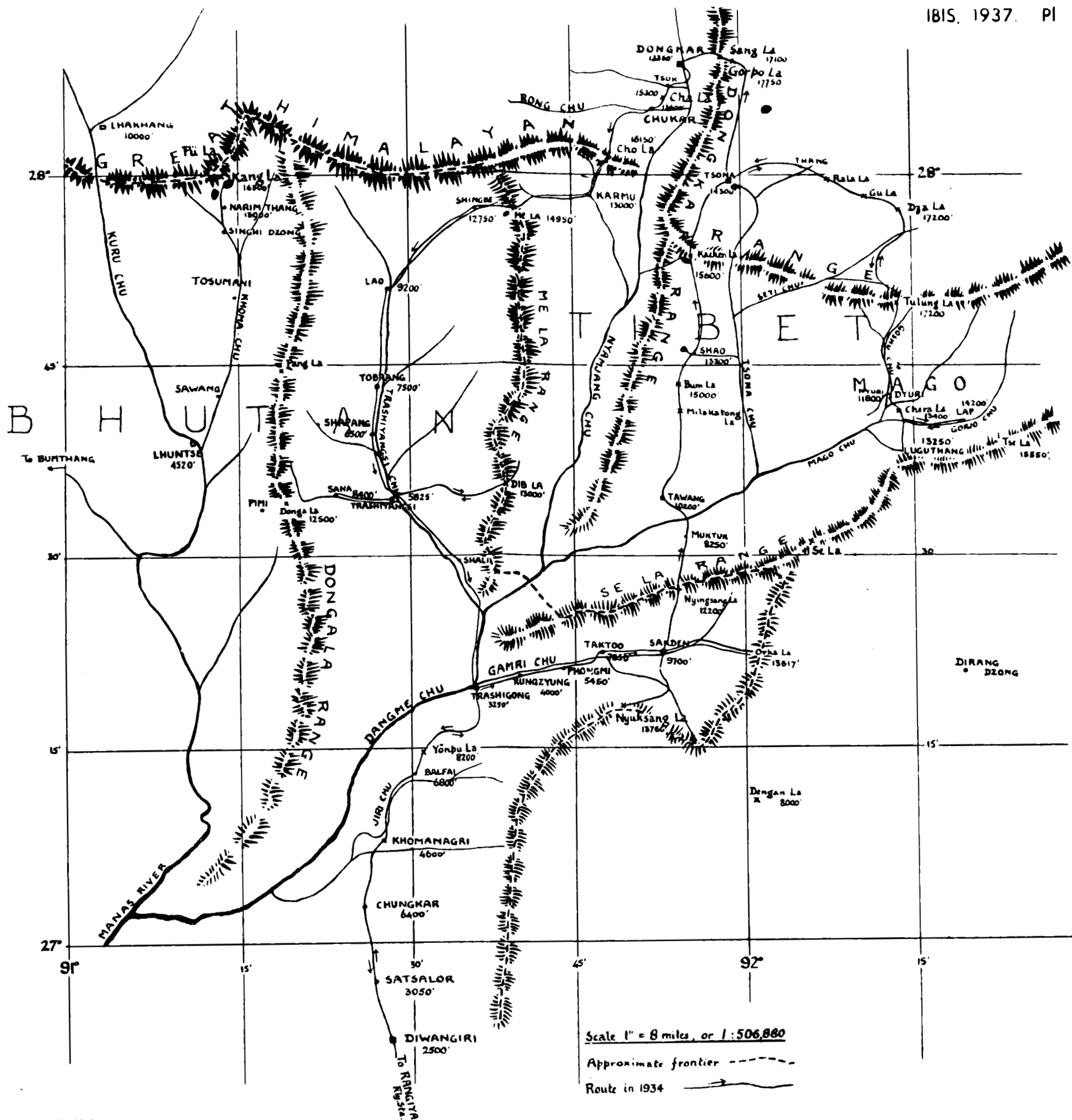


Dongkar, Tibet (13,500 feet). Dry Zone



Zangthang, Mago District (15,000 feet). Alpine Zone.





Scale 1" = 8 miles, or 1:506,880

Approximate frontier - - - - -

Route in 1934 ———→



Garrulax gularis.
Fulvetta ludlowi.
Spelæornis s. sherriffi.

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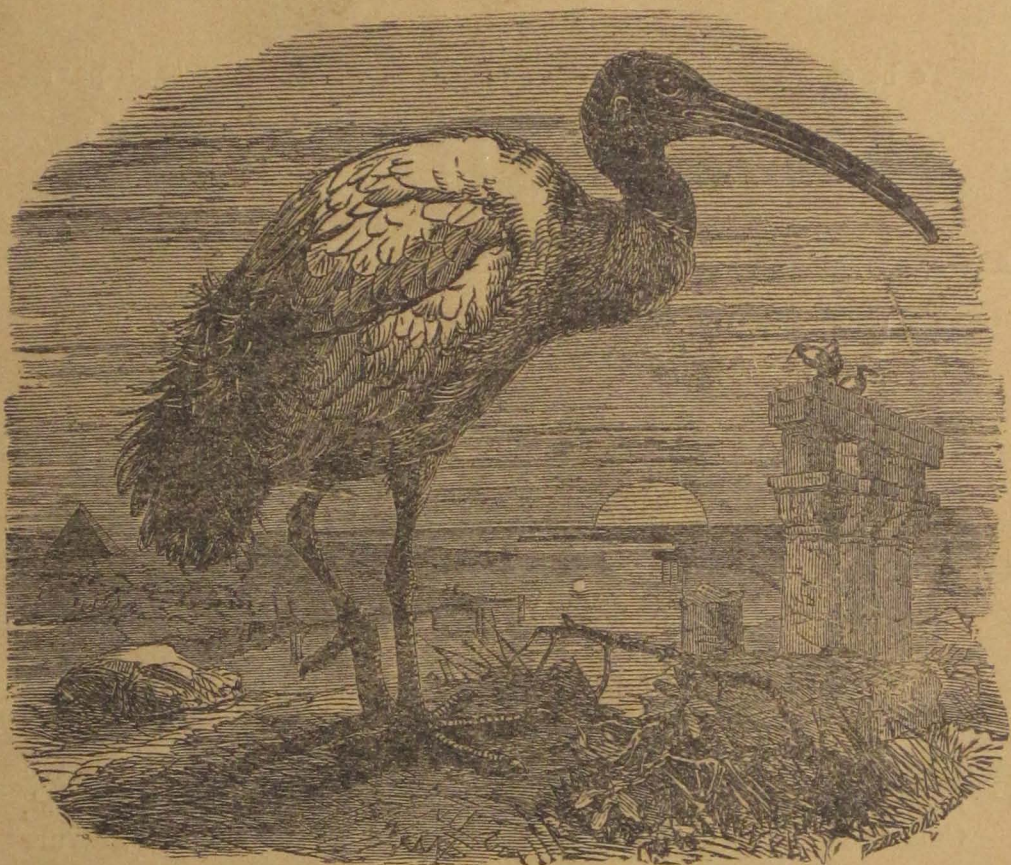
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by a hole at the side, which is sometimes sheltered by a porch. The whole structure is suspended from a short length of root or tendril. The eggs, always two in our experience, are lighter in weight and thinner in the shell than any other Tyrants' of approximately equal size: they are unspotted white and narrower across than the eggs of either of the last two species. Six average 19.5×14.1 mm. We have found nests with eggs from early in February to 7 July.

[To be continued.]

XIII.—*The Birds of Bhutan and adjacent Territories of Sikkim and Tibet.*—Part II. By F. LUDLOW, M.B.O.U. With Notes by N. B. KINNEAR, M.B.O.U., Department of Zoology, British Museum (Natural History).

Certhia familiaris mandelli.

Certhia mandelli Brooks, J. As. Soc. Bengal, 1873, p. 255: Darjeeling.

1712, 1713, ♂♀, Changu (11,500 ft.), 8. 5; 1743, ♂, Changu (11,000 ft.), 11. 5; 1769, ♂, Lingmothang (above Yatung) (11,500 ft.), 16. 5; 2204–2206, ♀♂, Shingbe (12,750 ft.), 10. 8; 3062, juv., Sakden (12,000 ft.), 19. 10; 3089, ♀, Sakden (9000 ft.), 22. 10.

In the breeding season this Tree-Creeper seems to inhabit a higher zone than either *discolor* or *nipalensis*, and we found it only in silver fir forest, where it extended to the limit of tree-growth. It was quite common in western and eastern Bhutan, but we did not see it in central Bhutan, as we were seldom high enough for it.

[For the names of the Indian Tree-Creepers see *Ibis*, 1935, p. 664. We have in the British Museum two juveniles of this species, collected by W. E. Brooks at "Nagthull, N.W. Province, 12 June, 1875," and there is one, ex Gould's collection, labelled "Nepal Creeper," in pencil, "from Nepal," and a specimen collected by Major E. F. Norton in the Karma Valley, S. Tibet, 12,000 feet on 26 June, 1923.]

Certhia discolor discolor.

2679, ♂, Tobrang (8000 ft.), 1. 9 ; 2907, ♀, Trashiyangsi (8000 ft.), 26. 9 ; 2938, o, Trashiyangsi (8000 ft.), 28. 9 ; 2998, ♂, Sana (8000 ft.), 7. 10 ; 3202, ♀, Jiri Chu (4000 ft.), 4. 11 ; 3213, 3214, ♂♀, Khomanagri (4000 ft.), 5. 11.

We found this species at a lower elevation than either of the others, and it appeared to prefer oak and deciduous forest to conifer. Stevens's experience of this bird in Sikkim is very similar to ours. Meinertzhagen, however, obtained it *in winter* in Sikkim at very nearly 12,000 feet.

[A single example in the Pemberton collection. This species is said to be found as far west as Nepal, on the strength of a figure in the unpublished collection of drawings by Hodgson in the possession of the Zoological Society. In 1843 a skin came to the British Museum from Hodgson, and probably is the actual specimen depicted ; another was received in 1848, but is more likely to have come from Sikkim. According to Horsfield and Moore all the specimens presented by Hodgson to the East India Company's Museum were from Sikkim. Hodgson at first confused *C. nipalensis* (*stoliczkæ*) and *C. discolor*, and all his specimens bear the same number, viz., 598.]

Certhia nipalensis Blyth. (J. As. Soc. Bengal, xiv. (2) 1845, p. 581 : Nepal.)

2496, juv., Sakden (10,000 ft.), 8. 7 ; 2816, ♂, Dib La (10,500 ft.), 17. 9 ; 2879, ♀, Dib La (9000 ft.), 23. 9 ; 2886, ♀, Dib La (9000 ft.), 24. 9 ; 3048, ♀, Sakden (9000 ft.), 18. 10 ; 3090, ♂, Sakden (9000 ft.), 22. 10 ; 3105, ♂, Sakden (9000 ft.), 24. 10.

This species occurred in mixed deciduous and conifer forest between 9000 and 10,500 feet.

Nos. 3089 (*vide mandelli*) and 3090 were associated together, and seemed to be a pair. They were shot in the same tree and at the same moment, yet the former is *mandelli* and the latter *nipalensis*.

We did not meet with *Certhia h. himalayana*, which is said to occur in Bhutan ('Fauna,' vol. i. 2nd ed. p. 430).

[Pemberton's collection contains a female. In the 'Fauna' (vol. ii. p. 438) Baker follows Oates, and does not give this species as occurring in Nepal, but there is in the Museum a specimen received from Hodgson in 1843, before he had left Nepal. Two others mentioned in the 'Catalogue of Birds' were received in 1859 and 1860, and are in all probability Sikkim specimens, and a third, ex Gould's collection, is also open to doubt. 3 ♂♂, 71-75 mm. : 1 ♀, 71.

As Mr. Ludlow has pointed out, in the 'Fauna' (vol. ii. p. 430) *C. himalayana* is given as extending to "Nepal, Sikkim, Bhutan, and W. Assam," but on what authority we do not know. I find that I misinformed Stevens (J. Bombay Nat. Hist. Soc. 1924, p. 1011) as to this species in Nepal and Sikkim. According to the 'Catalogue of Birds,' vol. viii. p. 327, specimens W and X came from Nepal, presented by Hodgson, and on looking them up in the register it appears both were purchased, one from Leadbeater, said to come from the Himalayas, and the other from Argent, with "India" given as the locality. Y, presented by Gould, and said to be from Assam, I cannot trace at present.]

Tichodroma muraria.

2575, ♂, Tulung La (16,000 ft.), 9. 8.

Not seen anywhere in Bhutan in summer. Observed at Sakden on 21 October on autumn migration. Seen occasionally north of the main range.

Troglodytes troglodytes nipalensis.

2169, juv., Me La (14,000 ft.), 4. 8 ; 2177, ♂, Shingbe (12,500 ft.), 5. 8 ; 2199, 2200, 2 juv., Me La (15,500 ft.), 8. 8 ; 2245, 2246, ♀♀, Pang La (14,000 ft.), 14. 8 ; 2281-2283, ♀ & 2 juv., Kang La (15,500 ft.), 21. 8 ; 2480, ♂, Sakden (9000 ft.), 6. 7 ; 2630, juv., Shingbe (12,750 ft.), 26. 8 ; 2639, juv., Shingbe (11,500 ft.), 28. 8 ; 3083-3085, ♂♂♀, Sakden (9000 ft.), 22. 10.

The Nepal Wren is common throughout Bhutan and in the Tibetan districts of Tawang and Mago between 10,000 and 15,000 feet in summer. It is, perhaps, most in evidence at

the higher altitudes amongst rocks and boulders in the alpine zone. At the same time it was often seen in thick fir and rhododendron forest.

Both in 1933 and 1934 we failed to meet with *tibetanus* north of the main range, and so far as I am aware the summer quarters of this race are unknown. Walton (Ibis, 1906, p. 73) and myself (Ibis, 1928, p. 57) found it common at Khamba Jong and Gyantse respectively in late autumn and winter.

[Baker ('Fauna,' i. p. 445) says this bird occurs in Bhutan, but I know of no previous record.]

Elachura formosa.

3217, ♀, Khomanagri (4000 ft.), 5. 11.

Evidently a rare bird. Reported in the 'Fauna' to be common on the Nepal-Sikkim frontier, but this statement must be erroneous, otherwise experienced collectors such as Stevens and Meinertzhagen would not have missed it. We met with this bird only on one occasion—at Khomanagri, in long grass and scrub. One or two other birds were heard in the vicinity, but we were unable to obtain a glimpse of them. The note resembles that of *Pnoepyga p. pusilla*, but is sharper.

[We have the following specimens in the Museum:—Two from Darjeeling, no date, and three from Sikkim, taken in October, November, and December. A single male collected at Kuatun, Fohkien Province, China, in April 1907, does not differ in colour from the Sikkim and Bhutan birds.

♂, Kuatun, wing 46 mm. ; bill from skull 13.5.

♀, Bhutan, wing 46 mm. ; bill from skull 14.

Stevens collected two examples at Panchnoi, Daffla Hills, at a low elevation.

Spelæornis soulei sherriffi. (Pl. VII. *)

2071, ♂, Donga La † (10,500 ft.), 25. 7 ; 2074, ♀, Donga La (10,500 ft.), 26. 7 ; 2236, o, Pang La (10,000 ft.), 13. 8 ;

* For plate see Part I. (Ibis, 1937, facing p. 30).

† The name of this Pass has been spelt incorrectly in Mr. Kinnear's original description in Bull. B. O. C. vol. liv. p. 107, 1934. It should be Donga La, not Dongma La. The error is mine, and the misspelling appears on the original label.

2794, 2795, ♂♂, Dib La (11,000 ft.), 14. 9 ; 2814, ♂, Dib La (11,000 ft.), 17. 9 ; 2820, ♀, Dib La (11,000 ft.), 17. 9.

At the first glance I mistook this bird for *Elachura* ; then, discovering my mistake, I concluded it was a new species, as it agreed with nothing in the 'Fauna.' Eventually it proved to be a new race of the *soulei* group from N.W. Yunnan.

This bird is more arboreal than most Wrens, and most of the specimens obtained were clambering about bamboo-stems and mossy tree-trunks, though never at any great distance from the ground. It is a tame bird, and rather slow in its movements for a Wren. The only note we heard it utter was a subdued "cheep."

[Head and back warm brown, each feather tipped with white terminated with black, more pronounced on the former. Tail and wings barred with wavy black lines. Below, throat and breast white, some of the feathers faintly tipped with black, extending in a varying degree on to the belly, which is light chestnut, as also are the flanks ; thighs and under tail-coverts similar to wings. Cheeks blackish, tipped white, ear-coverts brownish, with white tips. Upper mandible horny black, lower mandible pale fleshy ; feet horny brown ; iris red-brown. There is a variation in the colour of the head, and in some specimens the centres of the feathers are rufous-brown. In the two females wings and tail are slightly darker :

3 ♂♂, 47.5-51 mm. ; 2 ♀♀, 47-47.5 ; 2 ♂, 48-49.

So far as is known Sherriff's Long-tailed Wren is confined to Bhutan. Farther east in N.W. Yunnan, west of the Mekong River, the typical form, *S. s. soulei* Oustalet, occurs, while east of that river it is replaced by *S. soulei rocki* Riley.]

Spelæornis caudata.

3242, ♀, Chungkar (6000 ft.), 7. 11 ; 3252, ♀, Chungkar (6000 ft.), 8. 11.

This Wren has many of the habits of *Pnoepyga*, keeping much to the ground and haunting damp undergrowth in thick forest. I heard no note. A rare bird.

[2 ♀♀, wing 45-46 mm. ; bill from skull 12. Two juveniles in the Hodgson collection are rather more reddish above, without any signs of scalloping ; below, the red of the throat

is paler and the barring on the feathers indistinct, giving the bird almost a mottled appearance. Previously recorded only from Sikkim.]

Pnoepyga albiventer albiventer.

2099, juv., Donga La (9000 ft.), 27. 7 ; 2257, ♀, Khoma Chu Valley (9000 ft.), 17. 8 ; 2608, juv., Shingbe (12,750 ft.), 24. 8 ; 2637, 2638, ♂♀, Shingbe (11,500 ft.), 28. 8 ; 2748, ♀, Dib La (11,000 ft.), 10. 9 ; 2796, 2803, ♀♀, Dib La (11,000 ft.), 14. 9 ; 2809-2811, ♂♀♂, Dib La (11,500 ft.), 16. 9 ; 2828, 2829, ♀♀, Dib La (12,000 ft.), 18. 9 ; 2838, ♂, Dib La (12,000 ft.), 19. 9 ; 2845, ♀, Dib La (12,000 ft.), 20. 9 ; 2869, 2870, ♀♀, Dib La (9000 ft.), 23. 9 ; 2885, 2890, ♀♂, Dib La (9000 ft.), 24. 9 ; 2891, ♂, Trashiyangsi (8000 ft.), 25. 9 ; 3172, ♀, Yönpu La (8000 ft.), 2. 11 ; 3182, ♀, Yönpu La (8000 ft.), 3. 11 ; 3247, ♀, Chungkar (6000 ft.), 8. 11 ; 3269, ♂, Satsalor (6000 ft.), 9. 11 ; 3341, ♀, Diwangiri (2000 ft.), 14. 11.

This is really a very common bird in Bhutan, but until we learnt its note and habits we did not find it easy to procure. In 1933 we obtained only two specimens, not because we passed through country where it was scarce, but simply because we did not know *how* and *where* to look for it. The following year we studied this bird carefully, and with patience secured a large series of carefully sexed specimens with a view to settling once and for all the long-standing dispute as to whether the coloration of the individual is any guide to its sex. In the end we found that the colour of the underparts is no criterion of sex, and that *albiventer* and its cousin, *pusilla*, are dimorphic. This Wren has a wide altitudinal range. In the rains we obtained it at over 12,000 feet, whilst in autumn we got it at 2000 feet.

In the breeding season we found it confined to a zone between 9000 and 12,000 feet. In the lower portion of this zone it just overlapped with *pusilla*, but as a rule we found only *albiventer* above 9000 feet and only *pusilla* below.

The habitat beloved by this Wren is the neighbourhood of streams in thick forest where there is plenty of undergrowth. Though it spends much of its time on the ground, it also clambers about the bushes in close proximity to it.

It has two alarm-notes. The first we heard on the few occasions when it was almost trodden upon and really frightened. This was a shrill, piercing whistle. The normal alarm-note I can liken to nothing so realistic as an ill-mannered person loudly sucking his teeth! This sound is repeated at regular intervals every four or five seconds for the space of a couple of minutes, and is frequently very difficult to locate. I did not hear the Wren-like song referred to in the 'Fauna.'

It is rather unfortunate that Hodgson's *albiventer* must take precedence over Gould's *squamata*, as the former name applies to only *one* of the colour-phases of this bird's plumage.

[This species is dimorphic. In the one form the underside is white, in the other rust-coloured, and of the above examples 3 ♂♂ and 4 ♀♀ are the former and 3 ♂♂ and 10 ♀♀ the latter. At one time these colour-phases were considered sexual, but, as I have already shown, that is not the case (Bull. B. O. C. xlv. p. 9, 1924).

The juveniles of the two phases are also different, the white-bellied is greyish-olive below and the rusty-bellied golden-brown. This race ranges from Nepal through Sikkim and Bhutan, North Cachar, Manipur, Chin Hills, Yunnan, and Szechuan. A bird from Yunnan was described by Rothschild as *P. a. magnirostris* (Nov. Zool. xxxii. p. 297, 1925 : Shweli Valley), but from the description I can see no difference. A Szechuan specimen has also been separated by Thayer and Bangs as *P. mutica* (Mem. Mus. Comp. Zool. xl. p. 172, 1912 : Washan Mts., W. Szechuan), but a single skin in the Museum from Lung An, Szechuan, ex Styan coll., does not differ from the typical form. In the Western Himalayas a paler race, *P. a. pallidior* Kinnear, is found. A single example was collected in the Chumbi Valley at 10,000 feet in June by the native collector of the Second Everest Expedition.]

Pnoepyga pusilla pusilla.

2107, 2108, ♀, juv., Trashiyangsi (7500 ft.), 28. 7 ; 2375, ♀, Sedonchen (6000 ft.), 6. 10 ; 2686, ♀, Tobrang (8500 ft.), 2. 9 ; 2741, 2742, 2745, ♂♂, Trashiyangsi (8000 ft.), 9. 9 ; 2878, ♂, Dib La (9000 ft.), 23. 9 ; 2892, 2893, ♀♀, Trashiyangsi (8000 ft.), 25. 9 ; 2897, ♂, Trashiyangsi (8000 ft.), 25. 9 ;

2903, ♀, Trashiyangsi (8000 ft.), 26.9; 2913, 2918, 2922, 2923, ♀♂ juv. o, Trachiyangsi (8000 ft.), 27.9; 2931–2934, ♀♀♂♀, Trashiyangsi (8000 ft.), 28.9; 2940, 2941, ♂♂, Trashiyangsi (8000 ft.), 28.9; 2969, ♂, Sana (8000 ft.), 4.10; 3340, ♀, Diwangiri (2000 ft.), 14.11.

This species is strikingly like its larger cousin both in coloration and habits. As a rule it lives at lower altitudes, though it should be noted that Meinertzhagen obtained specimens in Sikkim at over 11,000 feet in winter. Its alarm-note is a sharp "tsik," uttered more frequently and for a longer period than that of *albiventer*. In November it was common in dense forest below Diwangiri at almost plains level.

[This Scaly Wren differs from the last in the smaller size, but otherwise is the same and is also dimorphic.]

Measurements.—

P. a. albiventer :

6 ♂♂, wing 59–65 mm. ; bill from skull 13.5–14.

9 ♀♀, wing 59–61 mm. ; bill from skull 12.5–14.

P. p. pusilla :

8 ♂♂, wing 49–53 mm. ; bill from skull 12–13.5.

9 ♀♀, wing 48–51 mm. ; bill from skull 12.5–13.5.

Including the above we have 48 specimens in the collection, and of these 26 are white-bellied and 22 rusty-bellied. It ranges from Nepal, Sikkim, Bhutan, Khasia Hills, south to Mulyit in N. Tenasserim. Farther south it is replaced in the Malay Peninsula by *P. p. harterti*, but birds from Annam, separated as *P. p. annamensis* Rob. & Kloss, do not differ from the typical form. Specimens from Kuatun, S. China, seem a trifle more olive than Himalayan birds. Forms of this Scaly-bellied Wren are also found in Java, Sumatra, Borneo, and Formosa.]

Tesia cyaniventer.

2146, 2147, 2 juv., Trashiyangsi Valley (8000 ft.), 2.8; 2650, ♀, Tobrang (8000 ft.), 30.8; 2720, ♂, Tobrang (8000 ft.), 5.9; 2733, ♀, Trashiyangsi (6000 ft.), 8.9; 2743, ♂, Trashiyangsi (8000 ft.), 9.9; 2894, 2895, ♂♀, Trashiyangsi (8000 ft.), 25.9; 2901, 2902, 2906, ♀♂♂, Trashiyangsi (8000 ft.), 26.9;

2912, 2916, 2917, ♀♂♂, Trashiyangsi (8000 ft.), 27. 9 ; 2927–2930, ♂♂♀♂, Trashiyangsi (8000 ft.), 28. 9 ; 3152, ♂, Gamri Chu (6000 ft.), 29. 10 ; 3237, ♂, Chungkar (6000 ft.), 7. 11.

Tesia olivea McClelland. (P. Z. S. 1839 (1840), p. 161.)

3226, ♂, Chungkar (3000 ft.), 6. 11 ; 3304, 3311, 3315, 3 ♀♀, Diwangiri (2000 ft.), 12. 11 ; 3338, 3339, 0 ♀, Diwangiri (2000 ft.), 14. 11.

The Slaty-bellied Wren presents a problem of great interest. As is well known, this Wren shows two colour-phases. There are (a) birds with crown concolorous with the back and with pale slaty underparts, and (b) birds with glistening golden crowns contrasting with the olive-green of the back, and dark slaty underparts. For the sake of brevity I shall refer to (a) and (b) as *pale* and *dark* phases respectively.

What value is to be assigned to these pale and dark phases ? Are they sexual or seasonal ? Are they due to age, individual variation (as stated in the ' Fauna '), dimorphism, or are they of specific or subspecific importance ? Mr. Kinnear thinks, and I agree, that they are either of specific or subspecific value. Let me state the reasons that have induced me to arrive at this conclusion. We brought back from Bhutan a large and carefully sexed series of this Wren—to be precise, 26 specimens. Of these specimens 20 are pale, 6 are dark. *The 20 pale specimens were the first 20 birds we collected. All were obtained in temperate forest between 6000 and 8000 feet, and we did not meet with a single dark form within this zone.*

The 6 dark forms were the last 6 birds we collected, and all were obtained in tropical forest at or below 3000 feet.

These facts are significant. Without breeding birds they prove nothing, but they suggest very forcibly indeed the existence of a high-altitude pale bird and a low-altitude dark bird.

That the difference in colour is not sexual is proved beyond doubt, as there are adult male and female pale forms and adult male and female dark forms in the series. It is equally certain the colour difference is not seasonal, for the pale and dark phases occur both in summer and winter. Age, also, is

not responsible for the colour difference, as there are pale juveniles and dark juveniles.

Individual variation cannot be the cause, for in the series obtained there is no sign of intermediate coloration, and specimens are either definitely pale or dark. Dimorphism seems untenable. If it prevailed it would hardly be possible to collect 20 pale forms in succession without encountering the dark form.

The most satisfactory solution of the problem seems to me to be that there is a high pale species or subspecies with a temperate summer distribution, and a low dark species or subspecies with a tropical or semi-tropical summer distribution.

We found *cyaniventer* inhabiting the same zone and same type of country as *Pnoepyga p. pusilla* in summer. It is a great skulker, but uses its wings as a means of escape more often than the species of *Pnoepyga*. Its alarm-note is a sharp "tsik." Its song is a pretty ripple of clear whistling notes.

Stevens, who obviously is referring to the dark form, *olivea*, records it in Sikkim from plains level up to 6000 feet.

[When Mr. Ludlow sent home the above specimens he asked me to go into the question of the differences and to see whether there were one or two species, or subspecies. As it was evident that there was not sufficient material in the British Museum, specimens were borrowed from Mr. H. Stevens, Mr. F. N. Chasen, Singapore, and the Field Museum, Chicago; while Dr. E. Mayr, of the American Museum, and Mr. J. L. Peters, of Cambridge, Mass., kindly sent particulars of the birds in their institutions.

The bird with the green head and pale grey below was described by Hodgson from Nepal in the J. As. Soc. Bengal, 1837, as *Tesia cyaniventer*, and two years later the one with the golden crown and dark grey underside was named by McClelland *Saxicola? olivea* in the 'Proceedings of the Zoological Society,' 1839 (1840), p. 161. Hodgson's type is still in the British Museum, but McClelland's bird, which was in bad condition, no longer exists, though there is a coloured figure of it among his unpublished drawings in the India Office.

Mr. Ludlow, in his remarks, has omitted one very important difference between the two, namely, the colour of the base of the lower mandible. In *T. cyaniventer* he describes it as orange-yellow, or yellow, and that of *T. olivea* as bright orange-red, or deep orange, and these differences are confirmed by the observations on the labels of the birds collected by other ornithologists. In fresh skins the difference in colour of the lower mandible is quite evident.

Measurements.—

T. cyaniventer :

21 ♂♂, wing 48, 50–53 mm. ; bill 13·5–15.

5 ♀♀, wing 47–50 mm. ; bill 14–15·5.

T. olivea :

11 ♂♂, wing 47–51 mm. ; bill 13–14.

9 ♀♀, wing 45–48 mm. ; bill 13–14.

On the labels of five specimens collected by Hume and Cripps in Manipur and Assam are the following weights :—

cyaniventer : 4 ♂♂, ·31–·34 oz. ; 1 ♀, ·30 oz.

olivea : 1 ♂, ·25 oz.

In the Himalayas, according to Stevens, both birds are found in the foothills and adjacent plains in the cold weather, but I have not seen a specimen or record of *T. olivea* above 4500 feet—Gopaldara, Sikkim, iii., iv. (H. Stevens); whereas Mr. Ludlow obtained juveniles of *T. cyaniventer* at 8500 feet in August and numerous adults at 8000 feet in September.

Stevens (J. Bombay Nat. Hist. Soc. vol. xxix. p. 1012, 1924) states the birds he got at Gopaldara were not resident, but only came up for the breeding season, which Baker ('Fauna,' vol. i. p. 464) says is June and July north of Brahmaputra, and April, May, and June south of that river. Stevens seems to suggest that in the Himalayas the breeding season commences at the end of March. All the birds collected by Hume in Manipur in April were *cyaniventer*, but the elevation is doubtful, though over 5000 feet at least. In Burma Vernay collected three examples of *olivea* and one of *cyaniventer* on the Upper Chindwin below 4000 feet in January and February. In the Myitkyina district Mr. Stanford obtained

olivea at 1500 and *cyaniventer* at 200 feet, both in December, and *cyaniventer* at 6800 feet on 23 April; one from 2500 feet in S. Arakan is also of the latter form. At Bernardmyo Mr. Smith obtained *olivea* at 6500 feet on 17 April. On Mount Victoria all the specimens Rippon obtained in March and May between 6000 and 7000 feet were *cyaniventer*, and a single skin of *olivea* was shot by Oates on Mount Byingyi at 5500 feet in March. In the South Shan States Rippon collected seven skins of *olivea* and one of *cyaniventer* at various localities, and states (Ibis, 1901, p. 532) that the birds "were common at 5000 feet and up to 7000 feet, coming down to 4500 feet when the vegetation suits." Unfortunately he gave no details of the elevation where the different specimens were collected. Forrest's Chinese collectors obtained three juveniles of *cyaniventer* in July on the hills north of Tengyueh in Yunnan at 8000 feet, and one of *olivea* on the Shweli-Salwin divide, 25° N., at 7000 feet in December, but I am doubtful if we can rely on his elevations. Stevens, in Tonkin, only got a female of *cyaniventer* at Bao Ha, 1000-2000 feet, in December, and remarks "that the solitary occasion when this bird was met with at Bao Ha undoubtedly represents its extreme limit of a descent from the hills during the cold season." At Ngoi Tio, 5000 feet, he collected four males of *olivea* in May and June, one of which was feeding young able to fly and apparently mated with a bird of the same colour. He adds that "in the mountain regions along the Yunnan frontier I met with numbers, but as the birds were breeding, with the exception of the above incident, I failed to secure any more female specimens."

In the same province Delacour got both birds, nine *olivea* and one *cyaniventer*, at Chapa, 5500 feet, in November and December, and another of the latter species at Backan in January. Farther south Kloss obtained only *cyaniventer* (two males) at Dalat, 5000 feet; two males, Arbre Broyé, 5400 feet; and two males and one female, Langbian Peaks, 6000-7000 feet, in April and May.

In the Hodgson collection and among Mr. Ludlow's birds there are juveniles assuming the pale grey underside of *cyaniventer*, and one of a similar age in the former collection

has the dark underside of *olivea*, showing that the difference in colour of the underside has nothing to do with age.

There is nothing conclusive in the above notes to show that these two birds are distinct species or even races. On the other hand Mr. Ludlow's notes all point to the fact that they are, and so far no one has collected the two birds breeding together.]

Tesia castaneocoronata.

2149, ♂, Trashiyangsi Valley (8000 ft.), 2. 8; 2251, ♀, Pang La (10,000 ft.), 14. 8; 2746, juv., Dib La (10,000 ft.), 10. 9; 2799, o, Dib La (11,000 ft.), 14. 9; 2818, ♀, Dib La (11,000 ft.), 17. 9; 2851, juv., Dib La (9000 ft.), 21. 9; 2862-2864, ♂♂♀, Dib La (9000 ft.), 22. 9; 2871, 2872, ♂♂, Dib La (9000 ft.), 23. 9; 2882-2884, ♂♀♂, Dib La (9000 ft.), 24. 9; 2898, juv., Trashiyangsi (8000 ft.), 25. 9; 2919, juv., Trashiyangsi (8000 ft.), 27. 9; 2936, 2937, 2 juv., Trashiyangsi (8000 ft.), 28. 9; 2956, ♂, Sana (8000 ft.), 3. 10; 2965, ♂, Sana (8000 ft.), 4. 10; 2985, o, Sana (8000 ft.), 6. 10; 2989-2991, o♀♀, Sana (8000 ft.), 7. 10; 3045, ♀, Gamri Chu (7500 ft.), 17. 10; 3150, 3151, ♂♂, Gamri Chu (6000 ft.), 29. 10; 3185, ♀, Yönpu La (8000 ft.), 3. 11; 3305, ♂, Diwangiri (2000 ft.), 12. 11.

This Wren goes a good deal higher than *cyaniventer* in summer, and we frequently met with it at 10,000-11,000 feet along with *Pnoepyga a. albiventer*. It is not such an inveterate skulker as *cyaniventer*, and, contrary to Stevens's experience in Sikkim, we found it less of a ground-bird than that species. It has a sharp characteristic call-note which I cannot render intelligibly on paper. There is no mention in the 'Fauna' of the very distinctive chestnut under-plumage of the juvenile.

[Sometimes the males are rather brighter below than the females, but otherwise there is no difference in colour in the sexes, though the males are larger.

5 ♂♂, Bhutan, wing 50-53 mm. ; bill from skull 11.5-12.

5 ♀♀, Bhutan, wing 47-50 mm. ; bill from skull 11.5-12.5.

The juvenile is dark olive-green with a brownish tint above and chestnut below. From this plumage the bird moults directly into that of the adult. Specimens from Yunnan

run large: 4 ♂♂ (sexes doubtful), 51–55 mm., 1 ♀, 51; and four from the Shan States, unsexed skins, measure 52, 53, 56, and 56 mm. respectively. There are three skins in the Museum from Indo-China which should be *T. c. abadieii* Delacour & Jabouille, but the difference is so slight that I do not think it can be recognized.]

Cinclus cinclus cinclus.

2295, ♀, Narim Thang (14,000 ft.), 26. 8; 2313, ♂, Pü La (14,500 ft.), 30. 8; 2341, ♀, Karo La (14,500 ft.), 15. 9; 2576, ♀, Tulung La (16,000 ft.), 7. 8; 2600, ♀, near Dongkar (14,000 ft.), 20. 8; 3076, ♀, Sakden (9000 ft.), 20. 10; 3099, 3100, ♂♂, Sakden (9000 ft.), 22. 10.

Seen throughout Bhutan from 12,000 feet upwards in summer. In the autumn we found it at 9000 feet at Sakden mixed up with the next species.

No. 2341, obtained on the Lhasa–Gyantse road, seems to be the *sordidus* mutation, the *Cinclus younghusbandi* of Walton. These mutations (probably only a colour dimorphism) seem to be common in Tibet. Walton (Ibis, 1906, p. 82) obtained three adult females at Khamba Jong, and Woollaston (Ibis, 1922, p. 506) two immature birds on the First Mount Everest Expedition. The specimen we obtained was associated with, if not mated to, the ordinary white-breasted bird.

[Meinertzhagen has already drawn attention to the dark colour of the underside of the White-breasted Dippers from Sikkim as compared with *C. c. cashmiriensis*. Bhutan skins are darker still, and agree with Kansu examples, which have been described by Meise as *Cinclus cinclus beicki* (Orn. Monatsb. xxxvi. p. 138, 1928), North Kansu, but as Mr. Whistler has pointed out to me, Kansu birds do not differ from *C. c. cinclus* of Europe. Typical *C. c. cashmiriensis* has a paler brown belly than in Bhutan birds, and, in addition, there is a pale area between the white of the breast and the brown of the belly. Our Sikkim specimens and one from the Chumbi Valley are intermediate between these two races, while another Chumbi bird agrees with the Bhutan skins.]

[*Cinclus pallasi dorjoi*, subsp. nov.]

Considerably darker than *C. p. tenuirostris*, but paler than any of the other races. The juvenile is similar to *tenuirostris*, but washed with rufous.

Measurements.—

5 ♂♂, wing 100–106 mm. ; bill from skull 24–26.

7 ♀♀, wing 93·5–101 mm. ; bill from skull 24–25·5.

Type, ♂, 18 October, 1934, Sakden, E. Bhutan, 9000 feet. Collected by F. Ludlow and G. Sherriff Brit. Mus. Reg. no. 1936.4.5.12.

Specimens examined, 12: Bhutan.

Five birds from Assam, Khasia Hills, and Cachar, and five from the Shan States may for the present be considered the same as Bhutan. The juveniles from Assam are of a dark brown, with the feathers on the back with lighter edges: below they have narrow white tips, while one from Yunnan is similar to the Szechuan specimen.

Measurements.—

4 ♂♂, wing 100–109 mm. ; bill from skull 24–26.

2 ♀♀, wing 96–100 mm. ; bill from skull 24·5–26.

Three adults from the Chumbi Valley are intermediate in colour with *tenuirostris*, and measure:—1 ♂, wing 92 mm. ; bill 24. 2 ♀♀, wing 95 mm. ; bill 23·5–24. Two juveniles are darker than Sikkim birds, the light brown wash being more pronounced and similar to the Bhutan bird.

Named in honour of Raja S. T. Dorje, Foreign Minister to the Maharaja of Bhutan].

1781, juv., Sharithang (11,000 ft.), 21. 5 ; 2260, 2265, ♂♀, Narim Thang (14,000 ft.), 18. 8 ; 3018, ♂, Trashigong (3000 ft.), 12. 10 ; 3037, 3038, ♀♀, Gamri Chu (4000 ft.), 15. 10 ; 3047, ♂, Sakden (9000 ft.), 18. 10 ; 3059, ♂, Sakden (9000 ft.), 19. 10 ; 3081, ♂, Sakden (9000 ft.), 21. 10 ; 3097, 3098, ♀♀, Sakden (9000 ft.), 22. 10 ; 3165, ♀, Gamri Chu (3000 ft.), 31. 10 ; 3291, ♀, Satsalor (2000 ft.), 11. 11.

Found from 2000 feet (November) up to 14,000 feet (August). Abundant on all the large rivers and their small tributaries throughout Bhutan.

[The Brown Dippers have been divided into a large number of races, many on insufficient material, since there is a good deal of difference in colour between fresh and worn birds. The following arrangement has been come to after the examination of a large series in the Museum, together with specimens from the collection of Messrs. Stevens and Whistler :—

Cinclus p. pallasi Temminck, Man. d'Orn. 1820, i. p. 177 : E. Siberia.

Slightly darker in colour and smaller than *C. p. soulei* from Szechuan. Juvenile above light brown, with darker edges to the feathers ; below grey, with white edges.

Measurements.—

12 ♂♂, wing 100–106 mm. ; bill from skull 23·5–26.

11 ♀♀, wing 92–103 mm. ; bill from skull 23–25.

Specimens examined, 43 : Amur Bay, Ussuriland, Corea, and Japan.

Cinclus p. soulei Oustalet, Ann. Sci. Nat. Zool. (7) p. 299, 1891 : Ta-tsien-lu.

Intermediate in colour between *C. p. pallasi* and *C. p. siemsseni*. A juvenile from Szechuan is very dark on the breast, with cinnamon-brown edges and whitish tips to the feathers of the abdomen, while another from Ichang is more reddish above.

Measurements.—

11 ♂♂, wing 111–118 mm. ; bill from skull 23–28.

10 ♀♀, wing 101–115 mm. ; bill from skull 24–27.

Specimens examined, 25 : Szechuan, Hupeh, and Kansu.

Cinclus p. marila Swinhoe, Ibis, 1860, p. 187 : Formosa.

Paler and smaller than *C. p. siemsseni*. Juvenile similar to the dark Fohkien type, but darker still.

Measurements.—

5 ♂♂, wing 100·5–107 mm. ; bill from skull 24–24·5.

1 ♀, wing 96–109 mm. ; bill from skull 24–26.

Cinclus p. siemsseni Mortens, Orn. Monatsb. 1903, p. 186 : Fu-tschou, Fokien.

Darker, especially on the underside, than *C. p. soulei* or

marila, the darkest race ; in general colour dark chocolate-brown. Four juveniles are the same as the Szechuan specimen, and two others from Howlick have white edges to the feathers below.

Measurements.—

9 ♂♂, wing 109–114 mm. ; bill from skull 25.5–28.

3 ♀♀, wing 105–110 mm. ; bill from skull 26–27.

Specimens examined, 18 : Fokien, and one juvenile.

Cinclus p. dorjei.

As above.

Cinclus p. tenuirostris Bonaparte, Consp. Av. 1850, i. p. 252 : Central Asia ; ex Gould MSS.

Much paler than any of the other races ; a cinnamon-brown colour with slender bill. Juveniles from Turkestan, Gilgit, and Kashmir are grey, with white tips to the feathers. Eastwards along the Himalayas juveniles gradually assume a browner tint, and examples from Sikkim have the back, breast, and thighs washed with a light brown.

Measurements.—

♂, wing 90–105 mm. ; bill from skull 21.5–26.

♀, wing 90–95 mm. ; bill from skull 24.

Specimens examined, 64 : Turkestan, Gilgit, Kashmir, Dharm-sala to Sikkim.]

Larvivora brunnea.

1888, ♀, Damthang (10,000 ft.), 6. 6.

I have only this single record. The bird was caught on a nest containing four slightly incubated eggs.

[Although said to come from Bhutan by Baker, we have not previously seen a specimen from that country. The Second Everest Expedition obtained a male in the Chumbi Valley in May 1924 at 10,000 feet.]

Heteroxenicus stellatus.

2238–2242, ♀♂♀♂ & juv., Pang La (14,000 ft.), 14. 8 ; 2557, ♂, Mago (12,500 ft.), 5. 8 ; 2612, juv., Shingbe (12,750 ft.),

25. 8 ; 2821, ♀, Dib La (11,000 ft.), 17. 9 ; 2839, ♂, Dib La (12,000 ft.), 19. 9 ; 2873, 2874, ♀O, Dib La (9000 ft.), 23. 9.

In August 1933 we came across this rare Short-wing in considerable numbers at very nearly 14,000 feet on the Pang La. The weather was vile; there was no incentive to dawdle, yet we obtained five specimens of the bird without making any effort to search for it, which shows how plentiful it must have been in this particular area. The birds were on the tops of rhododendron bushes, and not skulking near the ground as is the custom of the genus. We saw this Short-wing nowhere else in 1933.

In 1934 we found it in the Mago district of S. Tibet and on the Me La Range. Nos. 2873, 2874 were shot in bamboo jungle, but the remainder were all obtained amongst rhododendron bushes in *Abies webbiana* forest.

I heard no song. The alarm-note is a "tik-tik," something like that of *cruralis*. Judging by the juveniles we obtained (which were previously unknown), eggs are probably laid in June and July. The sexes are similar.

[There is a certain amount of variation in the colour of the underside in the above series, some birds being darker than others. 3 ♂♂, 75-76 mm.; 2 ♀♀, 70-72. No. 2612, Shinbe, Me La, 25 August, is a juvenile which had just left the nest. It is a dark blackish-brown on the head and neck with paler brown shaft-streaks, which on the mantle cover nearly the whole feather. Rump similar to that of the adult, but without the freckling. Below, the throat and breast are similar to the head; abdomen greyish-black with broad, whitish, arrow-shaped markings which on the flanks and abdomen are suffused with buff. As the bird becomes older the colour of the upper side fades paler to reddish-brown, and the white arrow-marks and speckling on the lower side become more suffused with buff, while the dark edges to the feathers of the breast fade to a buffy-brown. No. 2242 is slightly older, with the tail half-grown, while nos. 2821, 2874 show the adult feathers beginning to appear, and in no. 2873 the assumption of the adult plumage has been all but completed. This bird was first discovered by Lieut. C. V. Eccles, of the Rifle Brigade, who obtained two examples at 10,000 feet in Nepal.

One he gave to Gould, who described it in the P. Z. S. 1848, p. 218, and is now in the British Museum; and the other he presented to the British Museum in 1868.

A single skin, sexed ♂, but with a wing of 72 mm., and probably a ♀, was collected by Delacour at Chapa, Tonkin, and described by him as *Brachypteryx stellatus fuscus* (L'Oiseau, xi. p. 397, 1930), but is doubtfully distinct.]

Heteroxenicus cruralis.

1703, ♂, Karponang (9500 ft.), 6. 5; 2030, ♂, Kuru Chu Valley (7000 ft.), 20. 7; 2068, ♀, Donga La (10,000 ft.), 25. 7; 2087-2089, ♂♂♀, Donga La (10,000 ft.), 26. 7; 2098, ♀, Donga La (11,500 ft.), 27. 7; 2235, ♂, Pang La (10,500 ft.), 13. 8; 2250, ♂, Pang La (10,000 ft.), 14. 8; 2255, ♂, Khoma Chu Valley (9500 ft.), 16. 8; 2642, ♀, Tobrang (8500 ft.), 29. 8; 2700, juv., Tobrang (8000 ft.), 3. 9; 2781, ♂, Dib La (11,000 ft.), 13. 9; 2802, ♂, Dib La (11,000 ft.), 14. 9; 2825, ♂, Dib La (11,000 ft.), 17. 9; 2880, o, Dib La (9000 ft.), 23. 9; 2889, ♂, Dib La (9000 ft.), 24. 9; 2909, ♀, Trashiyangsi (8000 ft.), 26. 9; 2964, ♂, Sana (8000 ft.), 4. 10; 3346, ♂, Diwangiri (2000 ft.), 14. 11.

Very common throughout Bhutan between 7000 and 11,000 feet in various types of dense forest. Many males are in female garb. The key to the species in the 'Fauna' is incorrect, *e. g.*, male *nipalensis* has an indigo-blue throat in the key and a white throat in the description!

[The males in this species are dimorphic, and in the brown plumage are only distinguished from the females by the white line above the eye. The juvenile has the head dark brown with pale centres to the feathers; back dark brown, rump tinged with yellowish, upper tail-coverts with a rufous wash. Throat and breast paler, each feather with a yellowish-brown centre; belly yellowish-brown.

18 ♂♂, brown plumage 64-67 mm.

24 ♂♂, blue plumage 66-73 mm.

13 ♀♀ 63-70.5 mm.

There is a curious male from Tonkin which is half blue and half brown.]

Hodgsonius phœnicuroides phœnicuroides.

1914, ♀, Ha (11,000 ft.), 13. 6 ; 1932, ♂, Ha (11,000 ft.), 17. 6 ; 2599, ♂, near Dongkar (12,500 ft.), 20. 8 ; 2602, juv., near Dongkar (12,500 ft.), 20. 8.

Apparently scarce. Obtained both north and south of the main range. No. 1914 was shot off a nest containing three eggs which was placed near the ground amidst long grass at the base of a small tree.

[A young ♂ in the Pemberton collection.]

Saxicola torquata indica.

2353, ♀, Sowgon (13,500 ft.), 25. 9 ; 2369, ♀, Tang La (14,500 ft.), 1. 10 ; 2782, ♂, Dib La (11,000 ft.), 13. 9 ; 3036, ♂, Gamri Chu (4000 ft.), 15. 10.

We saw no Stonechats in Bhutan or Tibet in summer. The above specimens were probably migrants.

[A young ♂ or ♀ in the Pemberton collection. There is also a ♂ of *S. t. przewalskii*.]

Rhodophila ferrea ferrea.

1683, ♀, Gangtok (5800 ft.), 2. 5 ; 1939, ♂, Dokyong La 30. 6 ; 1964, juv., near Trongsa (8000 ft.), 4. 7 ; 2419, ♂, Yönpu La (8000 ft.), 27. 6 ; 2653, 2659, ♀♂, Tobrang (8000 ft.), 31. 8 ; 2708, o, Tobrang (8000 ft.), 4. 9 ; 3200, 3203, ♀♀, Jiri Chu (4000 ft.), 4. 11 ; 3223, ♂, Khomanagri (4000 ft.), 5. 11.

Plentiful in Bhutan on the outskirts of cultivation between 6000 and 9000 feet in summer. Observed at Tawang, in Tibet, at the latter altitude.

[A ♂ in the Pemberton collection, and 2 ♂♂ collected in April in the Chumbi Valley by the native collector of the Second Mount Everest Expedition.]

Enicurus maculatus guttatus.

2148, ♀, Trashiyongsi Valley (8500 ft.), 2. 8 ; 2380, ♀, Sedonchen (3500 ft.), 6. 10 ; 2962, ♀, Sana (8000 ft.), 4. 10 ; 3294, ♂, Satsalor (2000 ft.), 11. 11.

In summer we found this Forktail between 6000 and 10,000 feet near small streams in dense forest—less frequently on the banks of major rivers. It was shy and uncommon. But in November we found them tame and plentiful in the wide beds of large rivers at low altitudes.

Enicurus schistaceus.

3160, 3161, ♂♂, Gamri Chu (3000 ft.), 31. 10 ; 3295, ♀, Satsalor (2000 ft.), 11. 11.

A low-altitude Forktail. Less of a forest bird than the preceding species.

[One in the Pemberton collection.]

Microcichla scouleri scouleri.

3096, ♀, Sakden (9000 ft.), 22. 10 ; 3104, ♀, Sakden (9000 ft.), 24. 10.

We seldom saw this bird in summer. Plentiful on the Manas River near Trashigong at 2800 feet on 13 October. A week later we found it on small forest streams at Sakden at 9000 feet.

[Two examples in the Pemberton collection.]

Phœnicurus frontalis.

1739, ♂, Changu (11,000 ft.), 11. 5 ; 1754, ♀, Chumpithang (12,000 ft.), 14. 5 ; 1834, ♂, Sharithang (11,500 ft.), 28. 5 ; 1911, ♂, Ha (11,500 ft.), 13. 6 ; 2174, 2175, juv. & ♂, Me La (14,000 ft.), 4. 8 ; 2287, juv., Kang La (14,000 ft.), 22. 8 ; 2530, juv., Mago (11,500 ft.), 25. 7 ; 3092, 3093, ♂♂, Sakden (9000 ft.), 22. 10.

Common in Bhutan between 11,000 and 14,000 feet in summer; also in Tibetan country south of the main range, but not north, apparently. On 30 May, 1933, a bird was observed building its nest in a hole in a dead conifer 25 feet from the ground—rather an unusual site for this Redstart.

[Obtained by the native collector of the Second Mount Everest Expedition in the Chumbi Valley in April. ♂ and ♀ in the Pemberton collection.]

Phœnicurus schisticeps.

2320, juv., Hamo Chu Valley, near Lhaxhang (11,500 ft.), 1. 9.

Although this Redstart is common south of the main range in winter, I can find no record of its occurrence in the Himalayas in summer. Blanford, Walton, Stevens, and Wollaston all failed to meet with it at this time of the year. Although the bird we secured must have been bred in the locality

whence it was obtained, it is certainly a rare bird in summer along the main Himalayan range, and the large numbers of this beautiful Redstart which annually visit the southern slopes of the main range in winter must, I think, breed well to the north of the Himalayas.

We saw *P. o. rufiventris* and *P. hodgsoni* north of the main range, but collected no specimens.

Phœnicurus erythrogaster vigorsi.

Ruticilla vigorsi Moore, P. Z. S. 1854, p. 27 : Bhutan.

2326, ♂, Pomo Tso (16,000 ft.), 10. 9 ; 2579, ♂, Tsona (16,500 ft.), 10. 8 ; 2583, 2584, ♂♀, Tsona (14,500 ft.), 11. 8.

I have no record of this Redstart either from Bhutan or Tibet south of the main range in summer. In 1933 we saw it on the shores of the Pomo Tso, and thereafter it was seen frequently as far as the Karo La on the Lhasa-Gyantse road. In 1934 we noted it on the Kechen La north of Tawang, at Tsona, and between Tsona and the Tulung La.

[This race was founded by Moore on a single female skin collected by Pemberton in Bhutan. I have nothing further to add to my note in 'The Ibis,' 1933, p. 458.]

Chaimarrornis leucocephala.

1983, ♀, near Trongsa (9000 ft.), 5. 7.

Throughout Bhutan from 6000 to 15,000 feet in summer. As in the Western Himalayas, a small number occur north of the main range, and it was observed at Towa and Dongkar in Tibet. Whereas the next species was invariably seen on streams and rivers, *leucocephala* was often noted in east Bhutan on rocky hill-sides at a considerable distance from running water. C/4, Chumbi Valley, 20 May.

Rhyacornis fuliginosa.

2464, ♂, Sakden (9000 ft.), 3. 7.

Commoner than *P. leucocephala*, but not observed above 12,500 feet, and not met with north of the main range.

[A ♂ and 2 ♀♀ in the Pemberton collection.]

***Cyanosylvia svecica* subsp. ?**

2352, ♀, Gyantse (13,300 ft.), 24. 9 ; 2356, ♀, Sowgon (13,500 ft.), 25. 9 : 2361, ♂, Kala (14,700 ft.), 27. 9 ; 2364, ♀,

Hram Tso (14,800 ft.), 28. 9 ; 2368, ♂, Tang La (15,000 ft.), 1. 10.

No Bluethroats were seen in Bhutan or Tibet in summer. As I have remarked elsewhere (Ibis, 1928, p. 61), these birds (whatever their name is) are migrants, and do not occur in S. Tibet in summer. All the above localities are on the Gyantse-Phari road, and it was rather interesting watching them (also *Phylloscopus affinis*, *Saxicola t. indica*, and various Wagtails) heading due south, feeding as they went, and taking their trek in a leisurely manner. We noted them at every stage.

[These specimens measure : ♂, 73-76 mm. ; ♀, 71.5-73, and agree in colour with a male collected by Ludlow at Gyantse, 2 October, 1924, wing 75 mm. This bird, which Meinertzhagen has stated (Ibis, 1927, p. 592) is the same as a skin of an immature male he collected at Silguri, Bengal, was identified by Suskin as *C. s. przewalski*. Tugarinow (Ann. Mus. Leningrad, xxix. p. 11, 1928) saw Meinertzhagen's bird and confirmed the identification. Unfortunately, however, *prezawalski* is rather a small bird, wing 70-73.5 mm., so that, in spite of the similarity in colour, there is a considerable doubt if the present birds really are that race. Bluethroats in autumn plumage are very difficult, if at all possible, to identify.]

Grandala caelicolor.

2267, 2268, ♂♂, Kang La (15,500 ft.), 19. 8 ; 2279, 2280, juv. & ♀, Kang La (15,500 ft.), 21. 8 ; 2298-2302, ♀♀♂♂ & juv., Kang La (15,500 ft.), 27. 8 ; 2303, 2304, ♂♂, Kang La (15,500 ft.), 29. 8.

We saw this bird only on the Kang La. Here they were very plentiful, feeding on insects and the glaucous indigo-blue berries of a dwarf *Vaccinium*.

[Unfortunately, with the exception of one bird, all these specimens are in wing-moult. I have already pointed out in the J. Bombay Nat. Hist. Soc. xxxvii. p. 358, 1934, that there is no colour difference between the Himalayan and Szechuan birds, but that they could be distinguished by measurements. On remeasuring the same birds and some additional examples it seems to me that until more specimens

are measured from Szechuan the race *G. c. florentes* Bangs is not worth recognizing.

25 ♂♂, Bhutan-Kashmir, wing 140-150 mm.; bill from skull 19-22.5.

1 ♂, Adung Valley, wing 146 mm.; bill from skull 21.5.

6 ♂♂, Chuanchi and Tatsien-lu, wing 136-143 mm.; bill from skull 18.5-20.5.]

Calliope pectoralis confusa.

2309, 2310, ♀ & juv., Pü La (15,000 ft.), 30. 8.

In 1933, although we were constantly on the look-out for Ruby-throats in Bhutan, we saw none until the day we crossed the frontier into Tibet. The above specimens were obtained in typical transition-zone country on the main range.

[Hartert gives this species as occurring in Bhutan, but we do not know on what authority.]

Calliope tschebaiewi.

2517, ♂, Tsona (14,500 ft.), 20. 7; 2536, 2537, ♀ & juv., Mago (14,000 ft.), 27. 7; 2541, ♂, Mago (14,500 ft.), 28. 7.

This bird was quite common in the Tsona and Mago districts of Tibet both north and south of the main range in transition-zone country. In the Eastern Himalayas, therefore, we have *tschebaiewi* and *pectoralis* breeding quite close to each other, and in exactly the same type of country. This rather strengthens Baker's contention that *tschebaiewi* is a good species and not a member of the *pectoralis* group.

Tarsiger chrysæus chrysæus.

1851, ♂, Chu La (14,000 ft.), 1. 6; 2018, ♂, Rudo La (12,000 ft.), 19. 7; 2182, ♂, Shingbe (14,000 ft.), 5. 8; 2214, o, Shingbe (13,000 ft.), 10. 8; 2248, 2249, juv. & ♂, Pang La (14,000 ft.), 14. 8; 2286, juv., Kang La (14,000 ft.), 22. 8; 2479, juv., Sakden (11,000 ft.), 6. 7; 2495, ♀, Sakden (10,500 ft.), 8. 7; 2617, juv., Shingbe (12,750 ft.), 25. 8; 2843, ♂, Dib La (11,500 ft.), 19. 9.

A common bird in Bhutan, both on the major and minor passes, from 10,000 feet up to the limit of rhododendron-scrub growth. Noted also in the Tawang and Mago districts of Tibet.

[Capt. Kingdon Ward obtained an example at Ata Kunga La, Zayul, S. Tibet, in July 1933.]

Ianthia cyanura rufilata.

1759, ♂, Chumpithang (12,500 ft.), 14.5; 1785, ♂, Sharithang (11,000 ft.), 21.5; 1801, ♂, Chumpithang (12,500 ft.), 24.5; 1841, ♀, Sharithang (11,000 ft.), 30.5; 2189, ♂, Shingbe (13,000 ft.), 7.8; 2213, ♂, Shingbe (13,000 ft.), 10.8; 2318, juv., Hamo Chu Valley, near Lhakhang (11,500 ft.), 1.9; 2502, ♂, Sakden (12,000 ft.), 10.7; 2559, juv., Mago (12,500 ft.), 5.8; 2572, ♀, Mago (12,500 ft.), 8.8; 2616, ♀, Shingbe (12,750 ft.), 25.8.

Very common between 10,000 and 13,000 feet in summer. It was also found north of the main range near Lhakhang. C/4 at Sharithang, west Bhutan, on 30 May.

Ianthia indica indica.

1706, ♂, Karponang (9000 ft.), 6.5; 1740, ♂, Changu (11,500 ft.), 11.5; 2759, ♂, Dib La (11,000 ft.), 10.9; 2768, ♂, Dib La (11,000 ft.), 11.9; 2771-2773, 3 juv., Dib La (11,000 ft.), 11.9; 2792, ♂, Dib La (11,000 ft.), 13.9; 2834, ♀, Dib La (11,000 ft.), 18.9; 2887, ♀, Dib La (9000 ft.), 24.9; 3173, ♀, Yönpu La (8000 ft.), 2.11.

Common in east Bhutan at 11,000 feet. Inquisitive and tame.

Ianthia hyperythra.

1741, ♂, Changu (11,500 ft.), 11.5.

Not obtained in Bhutan.

Copsychus saularis saularis.

2387, juv., Satsalor (2000 ft.), 23.6; 2451, ♂, Gamri Chu (5000 ft.), 1.7.

Noted up to 5000 feet in east Bhutan in open country near cultivation.

Turdus merula buddhæ.

1696, 1697, ♂♂, Changu (11,500 ft.), 6.5; 2337, 2338, 2 juv., Karo La (15,000 ft.), 14.9; 2505, ♂, Shao (13,500 ft.), 15.7; 2514-2516, ♀, juv., ♂, Tsona (14,500 ft.), 19.7; 2544,

♂, Mago (13,500 ft.), 29. 7 ; 2573, ♂, Mago (13,500 ft.), 8. 8 ; 2585, 2586, 2 juv., Tsona (14,500 ft.), 11. 8.

In 1934 we found this Blackbird in large numbers between 13,500 and 15,000 feet at various stages between the Bum La, north of Tawang, and the Tse La in the Mago district. It occurred both north and south of the main range on rocky grassy hill-slopes covered with dwarf rhododendron and willow bushes. It is a very silent bird. Possibly it has a song, but I have never heard it utter anything but a harsh alarm-note. It has a more powerful flight than any other member of the genus with which I am acquainted. I have seen it feeding on juniper berries, hips of rose-bushes, insects, and once on small lizards. In winter it collects into flocks. Normally it is wild and unapproachable, but on occasions it is comparatively tame.

[The Blackbird of S. Tibet and N. Sikkim was separated by Meinertzhagen (Bull. B. O. C. xlv. p. 98) on account of its smaller bill. The material he worked with was not very satisfactory, but the above specimens prove he was quite correct, though additional specimens from Kashmir are wanted to show the range of measurements in the males of *T. m. maxima*.

3 ♂♂, Kashmir, bill from skull 29–29.5 mm.

11 ♂♂, Sikkim, Tibet, Bhutan, bill from skull, 24.5–27 mm.

4 ♀♀, Kashmir, bill from skull, 27–28 mm.

2 ♀♀, Tibet, bill from skull, 25.5–26 mm.

Turdus m. buddæ is confined to Sikkim, S. Tibet, and Bhutan at 11,500 feet or over. According to Stuart Baker ('Fauna,' vol. ii. p. 124) there is a specimen in the Museum from Bhutan, but this is a mistake.

Juveniles of the two Himalayan races of the Blackbird show considerably more difference in the sexes than in the typical race. The difference between them and juveniles from England is very striking, owing to the much narrower shaft-streaks on the upper side, which are also much paler and terminate in triangular-shaped marks at the tip of the feather. On the head and neck there is an absence of shaft-streaks or markings, while below they are less rufous and much darker on breast and throat.

A very young juvenile of *maxima* from the Kagan Valley (Whitehead) is blackish-brown above, with very pale shaft-streaks on the mantle; below cinnamon, breast blackish-brown with pale shaft-streaks. An older juvenile male is much darker and richer coloured below than a similar aged female. Some males have practically no shaft-streaks, but the pale V-shaped mark at the tip of the feather is very pronounced. The females are generally paler below, and I have only seen one with the V-shaped mark at the tips of the feathers.]

Turdus atrogularis.

[A ♂ in the Pemberton collection.]

Turdus ruficollis.

[A ♂ in the Pemberton collection.]

Turdus albocinctus.

1720, 1721, ♂♀, Changu (11,500 ft.), 9. 5; 1910, ♀, Ha (11,000 ft.), 13. 6; 2465, ♀, Sakden (9000 ft.), 3. 7.

Common throughout Bhutan between 9000 and 12,000 feet in summer. Open conifer forests are its favourite habitat at this time of the year. Numerous nests were found in May and June. The normal clutch is three.

[Royle gave as the type-locality "Hills," by which he meant the Himalayas, and I now restrict it to Dhera Dun, whence many of his birds came.]

Turdus boulboul.

1962, ♂, near Trongsa (8000 ft.), 4. 7; 2132, ♂, Trashiyangsi Valley (6500 ft.), 31. 7; 2143, ♀, Trashiyangsi Valley (7000 ft.), 1. 8; 2415, ♀, Jiri Chu (6500 ft.), 26. 6; 2648, ♀, Tobrang (8000 ft.), 29. 8.

Occurs in the breeding season at a lower altitude than *albocinctus*, though they overlap at 8000–9000 feet. Found throughout Bhutan. It is probably just as common as the preceding species, but is more addicted to dense forest, and is, in consequence, not so often seen.

Oreocincla dauma dauma.

1798, ♀, Sharithang (11,000 ft.), 24. 5; 2815, ♂, Dib La (10,500 ft.), 17. 9; 2963, ♂, Sana (8000 ft.), 4. 10.

No. 1798 was shot off a nest in a holly-oak which contained four very incubated eggs. A bird of lower altitudes than the next species.

Oreocincla mollissima mollissima.

1698, ♀, Karponang (10,000 ft.), 6. 5 ; 1730, 1734, ♀♂, Changu (12,000 ft.), 11. 5 ; 2157, ♂, Shingbe (11,500 ft.), 3. 8 ; 2188, ♂, Shingbe (14,000 ft.), 6. 8 ; 2191, ♂, Shingbe (12,500 ft.), 7. 8 ; 2550, ♂, Mago (14,000 ft.), 2. 8 ; 2561, ♀, Mago (12,500 ft.), 5. 8 ; 3134, ♀, Gamri Cho (7500 ft.), 27. 10.

In August we often met with this Thrush in open country well above the tree-line.

[No. 2188 is in juvenile plumage and is much darker both above and below than in the adult. The throat is buff and the markings of the feathers of the upper breast are heavy. No. 2191 has moulted all the juvenile feathers except the under tail-coverts. Both in this bird and no. 2157 many of the feathers of the mantle have dark edges, and not the uniform appearance of the adults, while the general colour above is darker and the markings below heavier. This appears to be the first winter plumage.]

Oreocincla dixonii Seebohm. (Cat. Bds. v. p. 161, 1881.)

2020, ♀, Rudo La (10,000 ft.), 19. 7 ; 2606, juv., Cho La (14,200 ft.), 20. 8.

[This species was not recognized by Baker in the 'Fauna,' but was confused with *O. mollissima mollissima*. The difference between the two species is given in full in 'The Ibis,' 1930, p. 579. Apart from the longer tail, *O. dixonii* is distinguished from *O. dauma* by the underside being whiter with fewer markings, white or buff under tail-coverts, broad buff edges to the wing-coverts, and paler back. No. 2606, a juvenile, is more olive above than the adult, with larger buff tips to the primary coverts and buffy-white under tail-coverts.]

Monticola erythrogastra.

2685. juv., Tobrang (8000 ft.), 1. 9 ; 3353, ♀, Diwangiri (2000 ft.), 14. 11.

This appears to be rather a scarce bird in Bhutan.

[A single example in the Pemberton collection.]

Monticola cinclorhyncha.

1999, o, Trongsa (7000 ft.), 7. 7 ; 2040, juv., Kuru Chu Valley (7500 ft.), 21. 7 ; 2430, ♀, Gamri Chu (3250 ft.), 30. 6 ; 3019, ♂, Trashigong (3000 ft.), 12. 10.

Apparently common.

Monticola solitaria pandoo.

3290, ♀, Satsalor (2000 ft.), 2. 11.

Not seen in summer. Obtained in a wide stony river-bed.

Myiophoneus temminckii temminckii.

1733, ♂, Changu (11,000 ft.), 11. 5 ; 2709, juv., Tobrang (8000 ft.), 4. 9 ; 2947, ♀, Trashiyangsi (6000 ft.), 1. 10 ; 3010, ♂, Trashiyangsi (6000 ft.), 10. 10 ; 3116, ♂, Gamri Chu (7500 ft.), 26. 10 ; 3194, ♂, Yönpu La (8000 ft.), 3. 11.

This bird struck me as being shy and more silent than it is in the Western Himalayas. Perhaps the heavier rain-fall damps its spirits, or the dense forests make it more wary.

We did not meet with *Zoothera* [one in the Pemberton collection], which is strange, or *Cochoa*, which is, perhaps, excusable.

Laiscopus collaris nipalensis.

1702, ♂, Changu (12,500 ft.), 6. 5 ; 1708, ♂, Changu (12,500 ft.), 7. 5 ; 1852, 1853, ♂♀, Chu La (13,500 ft.), 1. 6 ; 2172, 2173, ♀ & juv., Me La (15,000 ft.), 4. 8 ; 2202, ♂, Me La (15,500 ft.), 8. 8 ; 2274, 2275, ♂ & juv., Kang La (15,000 ft.), 19. 8 ; 2314, juv., Pü La (15,000 ft.), 30. 8 ; 2542, ♀, Mago (14,500 ft.), 28. 7 ; 2551, ♂, Mago (14,500 ft.), 2. 8 ; 2558, ♂, Mago (15,000 ft.), 5. 8.

Common at high altitudes. This bird is not a skulker. It is slow and unostentatious in its movements, but it is really a tame and confiding bird. No. 1852 had testes $\frac{3}{4}$ in. long. In September 1933 we saw a pair of Alpine Accentors on the Karo La between Lhasa and Gyantse. Unfortunately we could not shoot. According to the 'Fauna' these birds might have been *tibetanus*, but the impression I gained through glasses was that they belonged to the present race. We did not see *himalayanus*.

[One skin in the Pemberton collection. All the Mount Everest Expedition specimens and the above three from Mago are typical, and so, too, is a single female from Tsimla La, S.E. Tibet, collected by Col. Bailey. *L. c. tibetanus* is admitted in the 'Fauna' on the strength of fragments of skins from S.E. Tibet !]

Prunella immaculata.

2487, ♂, Sakden (11,000 ft.), 8. 7.

Decidedly scarce. I saw it at Ha in west Bhutan, but was unable to obtain a specimen. The Sakden birds were in conifer forest, as also were the Ha birds.

[A juvenile from Yunnan has the back browner, less maroon, than in the adult, each feather with a black tip. Head grey with a slight yellowish-brown wash; throat buffish-white; breast buff, spotted with large black marks; belly and under tail-coverts buff.]

Prunella rubeculoides rubeculoides.

2330, 2331, ♀♀, Pomo Tso (16,000 ft.), 10. 9; 2511, ♂, Tsona (15,000 ft.), 19. 7.

A bird of the "plateau" region, where it is abundant. Not seen south of the main range.

Prunella strophhiata strophhiata.

1726, ♂, Changu (11,500 ft.), 9. 5; 1749, ♂, Changu (12,500 ft.), 13. 5; 1800, ♂, Chumpithang (12,000 ft.), 24. 5; 1832, 1833, ♂♀, Sharithang (12,000 ft.), 28. 5; 2171, juv., Me La (13,000 ft.), 4. 8; 2311, 2312, ♀ & juv., Pü La (14,000 ft.), 30. 8; 2545, ♂, Mago (14,500 ft.), 29. 7; 2552, juv., Mago (14,000 ft.), 2. 8; 2577, ♂, Tulung La (14,500 ft.), 7. 8; 3130, ♀, Gamri Chu (7500 ft.), 27. 10.

Common between 11,500 and 14,500 feet in summer throughout Bhutan, generally in thick rhododendron jungle. In the 'Fauna' it is said not to be so inveterate a skulker as other members of the genus. Personally, I should have said the opposite.

[Three specimens obtained in April and May at 10,000 feet in the Chumbi Valley by the Mount Everest Expedition.]

Prunella fulvescens tibetanus Suskin. (Proc. Boston Soc. N.H. 1925, p. 53: Kambajong.)

2339, ♂, Karo La (15,000 ft.), 14.9; 2357, o, Sowgon (13,500 ft.), 25.9; 2581, 2582, ♂♂, Dza La, near Tsona (16,000 ft.), 10.8.

Not seen south of the main range. Common locally on the Tibetan plateau.

[This race was not recognized in the 'Fauna.' It differs from *P. f. fulvescens* in the feathers of the back having dark centres and buff edges, and in fresh plumage the underside is washed with buff. We have in the Museum a skin from the interior of Sikkim, obtained by Mandelli's collectors, but neither Meinertzhagen nor Stevens met with it. In South Tibet it appears to be not uncommon, and we have specimens from Gyantse, Kamba Jong, Kharta, and Upper Rongbuk Valleys. Mr. Ludlow collected a single specimen at Sazi La, near Gartok, Western Tibet, in 1932, which is intermediate between the present race and the typical.]

***Hemichelidon sibirica fuliginosa*.**

1816, ♂, Sharithang (11,000 ft.), 26.5; 1850, ♂, Sharithang (11,000 ft.), 30.5; 1872, ♀, Damthang (10,500 ft.), 2.6; 2060, ♀, Donga La (10,000 ft.), 25.7.

Stevens remarks that the majority of Sooty Flycatchers in Sikkim breed between 6000 and 7000 feet. In Bhutan most birds breed a good deal higher, say from 8000 to 10,000 feet. Baker, on the other hand, mentions an altitude of 14,000 feet in summer, and says that in Tibet they may even wander higher. Possibly he is right. But the home of this species is in forested country, and even *Abies webbiana* forest ceases to exist at 13,500 feet. Although we obtained no specimens from east Bhutan in 1934, it was common enough at Sakden and in the Mago district of Tibet between 9000 and 11,500 feet.

Hemichelidon cinereiceps Hodgson.

2059, juv., Donga La (10,000 ft.), 25.7; 2376, ♀, Sedonchen (6000 ft.), 6.10.

Of the two specimens obtained, only the juvenile comes from Bhutan—Sedonchen being in Sikkim. Evidently scarce. I have no notes about it.

Siphia strophinata strophinata.

1704, 1705, ♂♂, Karponang (10,000 ft.), 6.5; 1805, 1806, ♀♂, Sharithang (11,000 ft.), 25.5; 1812, ♀, Sharithang (11,000 ft.), 26.5; 1819, ♀, Sharithang (11,000 ft.), 27.5; 1940, ♂, Dokyong La (10,400 ft.), 30.6; 2006, ♂, Yuto La (11,500 ft.), 9.7; 2234, ♂, Pang La (10,500 ft.); 2237, juv., Pang La (10,500 ft.), 13.8; 2484, ♂, Sakden (9500 ft.), 7.7; 2520, ♂, Mago (12,500 ft.), 23.7; 2635, ♀, Shingbe (12,750 ft.), 27.8; 2852, juv., Dib La (9000 ft.), 21.9; 3129, o, Gamri Chu (7500 ft.), 27.10.

Common everywhere in summer between 9000 and 12,500 feet and rather a nuisance, as we were always mistaking it for something more interesting.

[A single ♂ in the Pemberton collection.]

Muscicapula hyperythra hyperythra.

2058, ♂, Donga La (9500 ft.), 25.7; 2850, ♂, Dib La (9000 ft.), 21.9; 2868, ♀, Dib La (9000 ft.), 22.9; 2935, ♂, Trashiyangsi (8000 ft.), 28.9; 2958, ♂, Sana (8000 ft.), 3.10.

An inhabitant of thick jungle. Most of the specimens were obtained at rather higher elevations than those recorded in the 'Fauna' and by Stevens.

[Birds from S. Shan States and a female from Tonkin, collected by Stevens, do not differ from Himalayan specimens.]

Muscicapula tricolor tricolor.

1780, ♂, Sharithang (11,000 ft.), 21.5; 1792, ♂, Sharithang (11,000 ft.), 22.5; 1807, 1810, ♂♂, Sharithang (11,000 ft.), 26.5; 1855, ♂, Damthang (10,000 ft.), 2.6; 1873, ♂, Damthang (10,000 ft.), 3.6; 2023, juv., Rudo La (11,000 ft.), 19.7; 2475, o, Sakden (9000 ft.), 6.7; 2497, ♂, Sakden (10,500 ft.), 8.7; 2533, ♂, Mago (12,500 ft.), 26.7; 2613, ♂, Shingbe (12,750 ft.), 25.8; 2631, 2632, juv. & ♀, Shingbe (12,750 ft.), 26.8; 2760, o, Dib La (11,500 ft.), 10.9; 2801, ♂, Dib La (11,000 ft.), 14.9; 2808, 2812, ♂♂ juv., Dib La (11,500 ft.), 16.9; 2826, ♂, Dib La (11,000 ft.), 18.9; 2987, o, Sana (8000 ft.), 6.10; 3056, ♂, Sakden (9000 ft.), 19.10; 3088, ♂, Sakden (9000 ft.), 22.10; 3128, ♀, Gamri Chu (7500 ft.), 27.10.

Common throughout Bhutan in summer between 9000 and 12,500 feet.

[A ♂ shot in May in the Chumbi Valley by the Mount Everest Expedition in June 1924.]

Muscicapula superciliaris astigma.

1917, ♀, Ha (9000 ft.), 13. 6 ; 1988, 1989, ♂♀, near Trongsa (7500 ft.), 6. 7 ; 2002, ♂, Trongsa (7000 ft.), 7. 7 ; 2673, ♀, Tobrang (8000 ft.), 1. 9 ; 2691, ♀, Tobrang (8500 ft.), 2. 9 ; 2996, ♂, Sana (8000 ft.), 7. 10.

No. 1917 was shot off a nest (c/4) built in the hollow base of a pine about six feet from the ground. Rather scarce and confined to forest, but not of the densest type.

[All the males show traces of the white supercilium, which is also visible in a bird from Yunnan. In the 'Fauna,' 2nd ed., this race is said to be "a little less deep blue in colour" than *M. s. superciliaris*, but the reverse is the case; the eastern bird is dark blue and the western considerably paler.]

Muscicapula melanoleuca melanoleuca.

2453, 2454, ♂♀, Gamri Chu (6000 ft.), 2. 7.

Observed only on this one occasion.

Muscicapula rubeculoides rubeculoides.

2431, 2432, ♂♂, Gamri Chu (3250 ft.), 30. 6.

Obtained in a hot semi-tropical valley in open country.

Eumyias thalassina thalassina.

2039, juv., Kuru Chu Valley (6000 ft.), 21. 7 ; 2048, ♀, Linji (6000 ft.), 23. 7 ; 2727, ♂, Trashiyangsi (6000 ft.), 6. 9 ; 2948, ♂, Trashiyangsi (6000 ft.), 1. 10.

A conspicuous and fairly common bird between 5000 and 8000 feet.

Anthipes moniliger moniliger.

3245, ♂, Chungkar (6000 ft.), 7. 11 ; 3282, ♀, Satsalor (3000 ft.), 10. 11 ; 3332, ♀, Diwangiri (2000 ft.), 13. 11.

We found this bird inhabiting thick bush-jungle, where its chattering notes claimed attention.

Culicicapa ceylonensis ceylonensis.

1677, 1680, ♀♀, Gangtok (6000 ft.), 2. 5 ; 2408, ♂, Jiri Chu (3500 ft.), 26. 6 ; 2660, ♀, Tobrang (8000 ft.), 31. 8 ; 2904, ♀, Trashiyangsi (8000 ft.), 26. 9 ; 2924, 2925, ♀♀, Transhiyangsi (8000 ft.), 27. 9 ; 2971, 2980, ♂♂, Sana (8000 ft.), 5. 10.

Very common throughout Bhutan up to 8000 feet.

Niltava sundara sundara.

1685, ♀, Gangtok (6000 ft.), 4. 5 ; 2456, ♂, Gamri Chu (6000 ft.), 2. 7 ; 2643, 2649, 2656, ♂♂♀, Tobrang (8000 ft.), 31. 8 ; 2981, 2982, ♂♂, Sana (8000 ft.), 5. 10 ; 3228, ♀, Chungkar (3000 ft.), 6. 11 ; 3321, ♂, Diwangiri (2000 ft.), 13. 11.

No. 1685 was caught on a nest in a hole in a bank (c/4). Common at 8000 feet at Tobrang in oak-forest. *Niltava grandis* was not seen.

Niltava macgrigoriæ.

3320, ♂, Diwangiri (2000 ft.), 13. 11.

Seen only at Diwangiri.

[A ♂ in the Pemberton collection from Bhutan.]

Chelidorynx hypoxanthum.

1808, ♀, Sharithang (11,000 ft.), 25. 5 ; 1835, ♂, Sharithang (11,000 ft.), 29. 5 ; 2162, ♂, Shingbe (10,000 ft.), 3. 8 ; 2560, ♀, Mago (12,500 ft.), 5. 8 ; 2736, ♂, Trashiyangsi (7000 ft.), 9. 9 ; 2859, ♂, Dib La (9000 ft.), 21. 9 ; 2961, ♀, Sana (8000 ft.), 3. 10 ; 3051, ♀, Sakden (9000 ft.), 18. 10 ; 3318, ♀, Diwangiri (2000 ft.), 12. 11.

Abundant in summer from 6000 feet up to tree-limit in almost every type of forest.

[Three skins in the Pemberton collection, and two were obtained in the Chumbi Valley (10,000 feet) in June by the Mount Everest Expedition.]

Rhipidura albicollis albicollis.

2037, ♂, Kuru Chu Valley (7500 ft.), 21. 7 ; 2378, ♀, Sedonchen (3500 ft.), 6. 10 ; 2389, ♀, Satsalor (2000 ft.), 23. 6 ; 3335, ♀, Diwangiri (2000 ft.), 13. 11.

The only Fantail-Flycatcher seen in Bhutan. It occurs up to 9000 feet, but is most plentiful in summer between 3000 and 5000 feet.

Lanius nigriceps nigriceps.

2122, juv., Trashiyangsi (6000 ft.), 30. 7 ; 2435, 2436, ♀♂, Gamri Chu (5000 ft.), 1. 7 ; 3229, ♀, Chungkar (2500 ft.), 6. 11.

Observed in summer in open country up to 6000 feet, above which altitude it is replaced by the next species.

Lanius schach tephronotus.

1714, ♀, Changu (11,000 ft.), 8. 5 ; 1825, ♀, Sharithang (11,000 ft.), 27. 5 ; 2163, ♀, Shingbe (12,000 ft.), 3. 8 ; 2190, ♂, Shingbe (12,000 ft.), 7. 8 ; 2527, juv., Mago (12,500 ft.), 24. 7.

Common in Bhutan in summer from 9000 feet upwards. Also common in Tibet up to 14,000 feet in favourable localities.

Tephrodornis gularis pelvica.

3300, ♂, Diwangiri (2000 ft.), 12. 11 ; 3355, ♂, Diwangiri (2000 ft.), 14. 11.

Only seen at Diwangiri, where these birds were in large flocks and very tame.

Perierocotus brevirostris affinis.

1673, ♂, Gangtok (6000 ft.), 30. 4 ; 1813, ♂, Sharithang (11,000 ft.), 26. 5 ; 2046, ♂, Kuru Chu Valley (5000 ft.), 22. 7 ; 2498, ♂, Sakden (10,000 ft.), 8. 7.

Often seen at various altitudes between 5000 and 11000 feet in summer.

[There is a considerable amount of variation in the depth of the crimson of these birds, and some incline towards *P. b. brevirostris*. Mr. Baker gives the type-locality as Assam, and then goes on to say that the bird must have come from the Western Himalayas ! McClelland's type was obtained in the Khasia Hills or Sadiya (*vide* Ibis, 1937, p. 30.) We have several specimens in the British Museum collected in the Chumbi Valley.]

Perierocotus solaris solaris.

1894, ♀, Damthang (10,000 ft.), 9. 6 ; 2437, ♀ juv., Gamri Chu (5000 ft.), 1. 7 ; 3112, ♀ juv., Sakden (9000 ft.), 25. 10 ; 3253, ♂, Chungkar (6000 ft.), 8. 11.

Stevens says this Minivet is confined to low altitudes in Sikkim, and expresses surprise at Blanford's record of it

from 10,000 feet in that country. It appears, however, that this species goes nearly as high as *affinis* in the breeding season.

[Two ♀♀ were collected by the 1924 Mount Everest Expedition in the Chumbi Valley on 23 April.]

Lalage melaschista melaschista.

2117, ♂, Trashiyangsi (6500 ft.), 28. 7 ; 2377, ♀, Sedonchen (3500 ft.), 6. 10 ; 3248, ♂, Chungkar (6000 ft.), 8. 11.

I have no records from west and central Bhutan. We found it in open forest in east Bhutan, where it did not appear to be plentiful.

Dicurus macrocereus albirictus.

1889, ♂, Damthang (10,000 ft.), 7. 6.

My notes on the Drongos are valueless. I regret to say we paid no attention to them.

Dicurus leucophæus longicaudatus.

1778, ♀, Yatung (8500 ft.), 20. 5.

[I agree with Ticehurst (Ibis, 1936, p. 275) that *stevensi* cannot be recognized.]

Chaptia ænea ænea.

3285, ♂, Satsalor (3000 ft.), 10. 11.

Chibia hottentotta hottentotta.

2131, ♂, Trashiyangsi (6000 ft.), 31. 7 ; 2385, ♂, Darrang (500 ft.), 21. 6.

6000 feet is rather high for this species.

[Pemberton obtained a single specimen in Bhutan.]

Tribura thoracica thoracica.

2076, 2077, 2085, ♀♀♀, Donga La (11,000 ft.), 26. 7 ; 2186, ♂, Shingbe (14,500 ft.), 6. 8 ; 2492, ♂, Sakden (11,000 ft.), 8. 7 ; 2556, o, Mago (14,000 ft.), 2. 8 ; 2565, ♂, Mago (14,000 ft.) 4. 8 ; 2596, ♂, near Dongkar (13,500 ft.), 19. 8 ; 2765, ♂, Dib La (11,000 ft.), 11. 9 ; 2779, juv., Dib La (11,000 ft.), 13. 9 ; 2832, ♀, Dib La (12,000 ft.), 18. 9.

First met with at 11,000 feet on the Donga La in east Bhutan on open grassy downs. Here it was very numerous, and was

mixed up with the next species. The following year we also found it common in suitable localities on the east Bhutan frontier and adjoining districts of Tibet. It was obtained as high as 14,500 feet in dwarf juniper. We did not find it a great skulker, and had no difficulty in securing specimens.

[According to Baker this bird breeds in Bhutan, but we have no specimens from that country, only winter birds from the Duars. 5 ♂♂, wing 51–55 mm. ; 4 ♀♀, 52.5–55 ; 1, no sex, 57.]

Tribura luteoventris.

2075, 2083, 2086, ♂♂♂, Donga La (11,000 ft.), 26. 7 ; 2418, ♀, Yönpu La (8000 ft.), 27. 6.

Similar in its habits to the preceding species, but we did not meet with it at such high altitudes. It was abundant on grassy down on the Yönpu La in June, but we were unable to stop to collect specimens.

[This species is likewise given as breeding in Bhutan by Baker, but we have only winter birds from the Duars. 3 ♂♂, 53 mm. ; ♀, 52.]

Orthotomus sutorius patia.

2394, ♂, Chungkar (6000 ft.), 24. 6 ; 3030, 3031, oo, Trashigong (3000 ft.), 13. 10 ; 3221, ♀, Khomanagri (4000 ft.), 5. 11.

Fairly common in the Manas Valley up to 6000 feet.

Franklinia gracilis.

2384, ♂, Darrang (500 ft.), 20. 6.

This Wren-Warbler was common in long grass at plains-level near the Menoka Tea Estate. No. 2383 was carried away by a rat and is missing.

Franklinia rufescens rufescens.

2426, 2427, ♂♀, Gamri Chu (3250 ft.), 30. 6 ; 3032, 3033, ♀♂, Gamri Chu (4000 ft.), 15. 10 ; 3164, o, Gamri Chu (3000 ft.), 31. 10 ; 3278, ♀, Satsalor (3000 ft.), 10. 11 ; 3293, ♀, Satsalor (2000 ft.), 11. 11.

Common amongst long grass in the low, hot, open portion of the Gamri Chu Valley.

Graminicola bengalensis bengalensis.

2385 A, ♂, Darrang (500 ft.), 21. 6.

In dense reed-beds at plains-level.

[Apparently not uncommon in the Bhutan Duars.]

Phylloscopus affinis.

1678, ♂, Gangtok (6000 ft.), 30. 4 ; 2349, o, Gyantse (13,300 ft.), 21. 9 ; 2580, ♂, Tsona (16,000 ft.), 10. 8 ; 2604, ♂, Cho La (14,200 ft.), 20. 8 ; 2944, ♂, Transhiyangsi (6000 ft.), 30. 9 ; 3052, o, Sakden (9000 ft.), 18. 10 ; 3057, o, Sakden (9000 ft.), 19. 10.

I have no record of this bird from Bhutan in the breeding season. Common on the Tibetan Plateau at this time of the year.

Phylloscopus fuligiventer.

2264, 2289, 2291, ♂♀♂, Narim Thang (14,000 ft.), 25. 8.

Common at Narim Thang, but not seen elsewhere. It seems to prefer more open ground more than most Willow-Warblers, and was found amongst rocks and boulders both in and above the rhododendron-scrub zone. Its dark coloration suggests a forested habitat, and I was rather surprised to find it in such open surroundings.

Phylloscopus fuscatus fuscatus.

2844, ♀, Dib La (11,500 ft.), 19. 9.

Phylloscopus fuscatus weigoldi.

2354, 2355, 2358, ♂♂, Sowgon (13,500 ft.), 25. 9 ; 2847, o, Dib La (12,000 ft.), 20. 9 ; 2945, ♂, Trashiyangsi (6000 ft.), 30. 9 ; 3021, ♂, Trashigong (3000 ft.), 12. 10 ; 3053, o, Sakden (9000 ft.), 18. 10 ; 3091, ♂, Sakden (9000 ft.), 22. 10.

Not seen during the breeding season. In September 1933 we found this bird common in thin buckthorn scrub near Gyantse. The birds were fat and appeared to be on migration. In the autumn of 1934 we again saw these Warblers in considerable numbers at various altitudes in east Bhutan. They were nearly always met with in long grass in open country. They kept close to the ground and were remarkably silent.

Phylloscopus fuscatus fuscatus \geq **Phylloscopus fuscatus weigoldi.**

3005, ♂, Sana (8000 ft.), 8. 10 ; 3023–3026, ♂♂, Trashigong (3000 ft.), 13. 10 ; 3163, o, Gamri Chu (3000 ft.), 31. 10.

Dr. Ticehurst, who has kindly identified all the members of this genus, is of opinion that these are intermediate between *fuscatus* and *weigoldi*.

Phylloscopus maculipennis maculipennis.

2647, o, Tobrang (8000 ft.), 29. 8 ; 2668, ♀, Tobrang (8000 ft.), 31. 8 ; 2687, ♂, Tobrang (8500 ft.), 2. 9.

Large parties were met with in the forests at Tobrang, but this Warbler was not seen elsewhere.

Phylloscopus pulcher pulcher.

1745, ♂, Changu (11,000 ft.), 11. 5 ; 1751, ♀, Chumpithang (13,000 ft.), 13. 5 ; 1765, ♂, Yatung (10,000 ft.), 15. 5 ; 2284, juv., Narim Thang (14,000 ft.), 22. 8 ; 3087, ♂, Sakden (9000 ft.), 22. 10 ; 3102, o, Sakden (9000 ft.), 23. 10.

Common in conifer forest throughout Bhutan. In dwarf rhododendron scrub along with *fuligiventer* at Narim Thang. The white outer tail-feathers are very noticeable in flight.

Phylloscopus proregulus chloronotus.

1676, ♂, Gangtok (6000 ft.), 30. 4 ; 1750, ♂, Chumpithang (13,000 ft.), 13. 5 ; 1779, ♂, Sharithang (1100 ft.), 20. 5 ; 2026, o, Rudo La (11,000 ft.), 19. 7 ; 2523, 2526, ♀♀, Mago (12,500 ft.), 24. 7 ; 2531, ♀, Mago (11,500 ft.), 25. 7 ; 2819, ♀, Dib La (11,000 ft.), 17. 9.

Found at similar altitudes to *pulcher* in summer, and appears equally common.

Phylloscopus magnirostris.

1790, ♂, Sharithang (11,000 ft.), 22. 5 ; 1821, ♀, Sharithang (11,000 ft.), 27. 5 ; 1848, ♂, Sharithang (11,000 ft.), 30. 5 ; 1864, ♀, Damthang (10,000 ft.), 2. 6 ; 1916, ♀, Ha (9000 ft.), 13. 6 ; 2130, ♀, Trashiyangsi (6000 ft.), 31. 7 ; 2474, ♂, Sakden (9000 ft.), 6. 7.

Common in the Bhutan forests from 7000 feet upwards. This Warbler has two distinct calls. One a five- (not four-

as recorded in the ' Fauna ' syllabled call, " PĒE-pě-pi—pě-pi," sometimes uttered slowly, sometimes rapidly, with a change in the timbre of the notes as the season advances. The other, a two-syllabled call, " pe-pi," consisting of a low note followed by a high one.

No. 1916 was shot off a nest (c/4) of moss lined with hair, which was placed under an overhanging bank. Stevens failed to meet with this bird in Sikkim, though it is plentiful in western Bhutan.

Phylloscopus trochiloides trochiloides.

1674, 1675, ♂♂, Gangtok (6000 ft.), 30. 4 ; 1744, ♂, Changu (11,000 ft.), 11. 5 ; 1752, ♂, Chumpithang (13,000 ft.), 13. 5 ; 1757, 1758, ♂♂, Chumpithang (13,000 ft.), 14. 5 ; 1840, ♀, Sharithang (11,500 ft.), 29. 5 ; 1849, o, Sharithang (11,000 ft.), 30. 5 ; 1909, ♀, Ha (11,000 ft.), 12. 6 ; 2021, ♂, Rudo La (11,500 ft.), 19. 7 ; 2187, ♂, Shingbe (13,000 ft.), 6. 8 ; 2221, o, Shingbe (13,000 ft.), 10. 8 ; 2285, o, Kang La (14,000 ft.), 22. 8 ; 2629, ♂, Shingbe (12,750 ft.), 26. 8 ; 2633, ♀, Shingbe (12,750 ft.), 27. 8.

Inhabits the same zone as *magnirostris* in summer. A nest (c/2) at Shingbe, taken on 27 August, contained pure white incubated eggs measuring 16.5 × 12.5 mm. Nest of moss, dead leaves, and root-fibres, lined with twisted bents and a few feathers. The female was caught on the nest. This bird, so similar in habits and appearance to *magnirostris*, does not possess the musical call-notes of the latter. The only sound I heard it utter was a series of chirps.

Phylloscopus reguloides reguloides.

1986, juv., near Trongsa (7500 ft.), 6. 7 ; 2063, 2064, ♂♂, Donga La (9500 ft.), 25. 7.

Phylloscopus reguloides assamensis.

2669, ♂, Tobrang (8000 ft.), 31. 8 ; 2701, ♀, Tobrang (8000 ft.), 3. 9 ; 2757, 2758, ♀♂, Dib La (9000 ft.), 10. 9 ; 3177, ♂, Yönpu La (8000 ft.), 2. 11.

I have no notes of any value about this and the preceding bird.

Seicercus affinis.

2110, o, Trashiyangsi (7500 ft.), 28. 7 ; 2393, ♂, Chungkar (6000 ft.), 24. 6 ; 3227, o, Chungkar (4000 ft.), 6. 11.

An inhabitant of dense leech-infested forest at no great altitude, which probably accounts for the small number of specimens obtained.

Seicercus burkii burkii.

1681, ♂, Gangtok (6000 ft.), 2. 5 ; 1763, 1764, ♂♂, Yatung (10,000 ft.), 15. 5 ; 1776, ♀, Yatung (10,000 ft.), 17. 5 ; 1795, ♂, Sharithang (11,000 ft.), 24. 5 ; 1811, ♂, Sharithang (11,000 ft.), 26. 5 ; 1863, ♂, Damthang (10,000 ft.), 2. 6 ; 1906, ♀, Damthang (10,000 ft.), 10. 6 ; 2233, o, Pang La (10,000 ft.), 13. 8 ; 2525, ♂, Mago (12,500 ft.), 24. 7 ; 2570, o, Mago (11,500 ft.), 7. 8 ; 2645, ♂, Tobrang (8000 ft.), 29. 8 ; 2657, 2664, oo, Tobrang (8000 ft.), 31. 8 ; 2600, o, Tobrang (8500 ft.), 2. 9 ; 2762, ♂, Dib La (11,000 ft.), 10. 9 ; 2888, ♂, Dib La (9000 ft.), 24. 9 ; 3095, ♀, Sakden (9000 ft.), 22. 10 ; 3178, o, Yönpu La (8000 ft.), 2. 11.

Extremely common throughout Bhutan both in deciduous and conifer forest. It appears to go higher than any other member of the genus, and birds may be seen almost at the limit of tree-growth. A nest (c/4) at Damthang on 10 June contained four white eggs, and was placed on the ground in thick forest. It was built of dead bamboo-leaves, dry pine-needles, moss, and small root-fibres, and was neatly lined with lichen and moss. Another nest obtained at Ha two days later (c/7) was placed among the roots of a fallen fir-tree.

[Pemberton obtained this bird. All these specimens are quite typical, but skins from Assam and Manipur are intermediate with *S. b. tephrocephala*. Also occurs in the Chumbi Valley, Tibet, where three examples were obtained in May and June by the native collector employed by the Second Mount Everest Expedition in 1924.]

Seicercus xanthoschistos xanthoschistos.

2118, ♂, Trashiyangsi (6000 ft.), 29. 7 ; 2397, ♂, Chungkar (5000 ft.), 25. 6 ; 2433, ♀, Gamri Chu (3250 ft.), 30. 6 ; 2731, ♂, Trashiyangsi (6000 ft.), 7. 9 ; 3020, 3022, ♂♀, Trashigong (3000 ft.), 13. 10 ; 3208, ♂, Jiri Chu Valley (6000 ft.), 4. 11.

Common from 6000 feet downwards. Found in scrub as well as in dense forest, though perhaps more frequently in the latter.

[Two specimens in the Pemberton collection.]

Seicercus poliogenys.

3260, o, Chungkar (6000 ft.), 8. 11 ; 3267, ♂, Satsalor (3000 ft.), 9. 11.

We saw but few of these birds.

Seicercus castaneoceps castaneoceps.

2676, ♀, Tobrang (8000 ft.), 1. 9 ; 3289, ♂, Satsalor (2000 ft.), 11. 11.

Apparently local in its distribution. Observed in parties at Tobrang in oak-forest, where they associated with Willow-Warblers.

Abroscopus schisticeps flavimentalis ?

1952, o, Wangdi Potrang (6000 ft.), 1. 7 ; 2141, ♀, Trashiyangsi Valley (7000 ft.), 1. 8 ; 2229, ♂, Tobrang (8000 ft.), 11. 8 ; 2398, o, Chungkar (5000 ft.), 25. 6 ; 2670, ♂, Tobrang (8000 ft.), 31. 8 ; 2716-2718, ♂♂o, Tobrang (8000 ft.), 5. 9 ; 2979, ♂, Sana (8000 ft.), 5. 10 ; 3241, ♂, Chungkar (6000 ft.), 7. 11.

Common locally. One would have expected Bhutan birds to belong to the typical race, but there is only a trace of yellow on the breast, and they are nearest *flavimentalis*.

[These birds have less yellow on the undersides than in Sikkim and Nepal examples, typical *A. s. schisticeps*, and appear to be *A. s. flavimentalis* described from Mount Victoria. Unfortunately the series from there are very bad skins, so that the identification of these Bhutan birds must be considered provisional.]

Neornis flavolivaceus flavolivaceus.

2022, ♂, Rudo La (10,000 ft.), 19. 7 ; 2066, ♀, Donga La (10,500 ft.), 25. 7 ; 2230, 2231, ♀ & juv., Tobrang (8000 ft.), 12. 8 ; 2463, ♂, Sakden (9000 ft.), 3. 7 ; 2624, 2625, juv. & ♀, Shingbe (12,750 ft.), 26. 8 ; 2651, juv., Tobrang (8000 ft.), 30. 8 ; 2661, ♂, Tobrang (8000 ft.), 31. 8 ; 2675, o, Tobrang (8000 ft.), 1. 9 ; 2693, ♂, Tobrang (8500 ft.), 2. 9 ; 2694, 2695, juv. & ♂, Tobrang (8500 ft.), 2. 9 ; 2704-2706, ♂♂ & juv., Tobrang

(8000 ft.), 4. 9 ; 2761, ♂, Dib La (11,000 ft.), 10. 9 ; 2833, ♀, Dib La (12,000 ft.), 18. 9 ; 3117, juv., Gamri Chu (7500 ft.), 26. 10 ; 3136, ♂, Gamri Chu (7500 ft.), 28. 10.

Common between 7000 and 12,000 feet in long grass and thick scrub in east Bhutan. It is an inquisitive bird, not very shy, and is loth to take wing. It possesses a harsh grating alarm-note.

[According to the 'Fauna,' 2nd ed., said to occur in Bhutan, but there do not seem to be any specimens to prove this.]

Homochlamys acanthizoides brunnescens.

3108, ♂, Sakden (9000 ft.), 24. 10.

Apparently scarce.

Homochlamys fortipes fortipes.

2127, ♂, Trashiyangsi (6500 ft.), 31. 7 ; 2702, ♂, Tobrang (8000 ft.), 3. 9 ; 2807, ♀, Tobrang (8000 ft.), 4. 9 ; 2975–2977, ♂♀♂, Sana (8000 ft.), 5. 10 ; 2986, ♂, Sana (8000 ft.), 6. 10 ; 3120, ♀, Gamri Chu (7500 ft.), 27. 10.

This seems to be the commonest Bush-Warbler in Bhutan. Common at Sana in marshy ground.

[No record from Bhutan, though found in the Duars in the cold weather. Apart from the colour, this species is distinguished from *H. pallidus* by the larger bill : ♂, 13–15 mm., as against 12–12.5.

Homochlamys major.

2216, juv., Shingbe (13,000 ft.), 10. 8 ; 2243, 2244, ♂♀, Pang La (13,000 ft.), 14. 8 ; 2493, 2494, o♂, Sakden (12,000 ft.), 8. 7 ; 2549, ♂, Mago (13,500 ft.), 30. 7 ; 2614, juv., Shingbe (12,750 ft.), 25. 8 ; 2636, juv., Shingbe (12,750 ft.), 27. 8 ; 2766, ♀, Dib La (11,000 ft.), 11. 9 ; 2800, ♂, Dib La (11,000 ft.), 14. 9.

This Bush-Warbler goes much higher in the breeding season than any other member of the genus. Its favourite habitat at this time of the year is dense rhododendron jungle in silver-fir forest. It seems to be more plentiful in Bhutan than it is in Sikkim and Nepal.

[The juvenile is olive-brown above ; the throat is white, with faint dusky marks ; chest greenish-grey ; belly white. In very young birds the white parts below are washed with yellowish.]

Horeites brunnifrons brunnifrons.

1694, 1695, ♂♂, Karponang (9000 ft.), 5. 5; 1760, ♂, Chumpithang (12,000 ft.), 14. 5; 1822, ♂, Sharithang (11,500 ft.), 27. 5; 1839, ♀, Sharithang (11,500 ft.), 29. 5; 2005, ♂, Yuto La (11,500 ft.), 9. 7; 2081, 2082, ♀ & juv., Donga La (11,000 ft.), 26. 7; 2105, juv., Donga La (11,000 ft.), 27. 7; 2259, juv., Khoma Chu (10,500 ft.), 17. 8; 2482, ♂, Sakden (9500 ft.), 7. 7; 2615, 2623, ♂ & juv., Shingbe (12,750 ft.), 26. 8; 2640, 2641, ♂ & juv., Shingbe (11,500 ft.), 28. 8; 2750-2753, ♂♂♀ & juv., Dib La (12,000 ft.), 10. 9; 2764, ♀, Dib La (11,000 ft.), 11. 9; 2797, 2798, ♂♂, Dib La (11,000 ft.), 14. 9; 2807, ♂, Dib La (11,500 ft.), 16. 9; 2840, 2841, ♂♂, Dib La (12,000 ft.), 19. 9; 3054, 3055, o♀, Sakden (9000 ft.), 19. 10; 3086, ♂, Sakden (9000 ft.), 22. 10; 3135, o, Gamri Chu (7500 ft.), 28. 10; 3184, ♀, Yönpu La (8000 ft.), 3. 11; 3250, ♂, Chungkar (6000 ft.), 8. 11.

A very common bird indeed in Bhutan between 9000 and 13,000 feet in summer. It is found principally in bamboo clumps, rhododendron scrub, and thickets in forest clearings. Noted as low as 4000 feet in November. Its alarm-note is a shrill piercing whistle. It also has other notes, including one which is harsh and rasping.

In this large series there is every stage of plumage from the juvenile to the adult.

[In the juvenile the head is the same colour as the back, which is slightly duller than in the adult; the underparts are greenish-brown with a tinge of yellow. *H. b. umbraticus* Stuart Baker, Yunnan, is only very slightly darker on the back and head.]

Suya criniger criniger.

1954-1956, ♂♂♂, Wangdi Potrang (4500 ft.), 2. 7; 1960, ♀, Wangdi Potrang (4500 ft.), 3. 7; 2033, juv., Kuru Chu Valley (5000 ft.), 20. 7; 2703, ♀, Tobrang (8000 ft.), 4. 9; 2713, o, Tobrang (8000 ft.), 4. 9; 3014, 3015, ♂o, Trashiyangsi (6000 ft.), 11. 10; 3216, ♀, Khomanagri (4000 ft.), 5. 11.

A characteristic bird of the dry zone between 4000 and 6000 feet in most of the major valleys of Bhutan. Here, where the hill-slopes are thinly forested with *Pinus longifolia*,

the Brown Hill-Warbler is found in abundance. Very common on the Mo Chu at Wangdi Potrang, and obtained as high as Tobrang.

[Two specimens in the Pemberton collection. The juvenile is brownish, with a faint yellowish tinge above, and the markings less distinct than in the adult. Below it is white with a yellowish tinge on the throat and belly and an indistinct greenish-brown band across the chest.]

Suya atrogularis.

2409, ♂, Jiri Chu Valley (3500 ft.), 26. 6 ; 2644, ♂, Tobrang (8000 ft.), 29. 8 ; 2698, 2699, oo, Tobrang (7500 ft.), 3. 9 ; 2899, o, Trashiyangsi (8000 ft.), 25. 9.

We found this bird occupying much the same type of country as *criniger*, though we occasionally saw it in forested areas. Only recorded from Sikkim in the 'Fauna,' though Stevens found it common in east Nepal.

[The markings in the juvenile are less distinct than in the adult, and the general colour is brownish with a faint yellowish tinge ; below white with faint yellow tinge on throat and belly. An indistinct yellowish and green-brown band across the chest.]

Regulus regulus sikkimensis.

1753, ♂, Chumpithang (13,000 ft.), 13. 5 ; 1802, ♂, Chumpithang (13,000 ft.), 24. 5.

Found only at Chumpithang in the Chumbi Valley in silver-fir forest. Although we failed to meet with it in Bhutan, it probably occurs there, but it resembles some of the smaller *Phylloscopi* so closely that it is easily overlooked. Still, it cannot be common, otherwise we should have encountered it.

Leptopæcile sophiæ obscura.

2305-2308, ♂♀ & 2 juvs., Pü La (14,000 ft.), 30. 8 ; 2322, ♂, Singhi Dzong (12,500 ft.), 5. 9 ; 2605, ♀, Chu La (14,200 ft.), 20. 8.

Only met with in Tibetan territory north of the main range, where it inhabited buckthorn thickets, dwarf willow, and rhododendron scrub.

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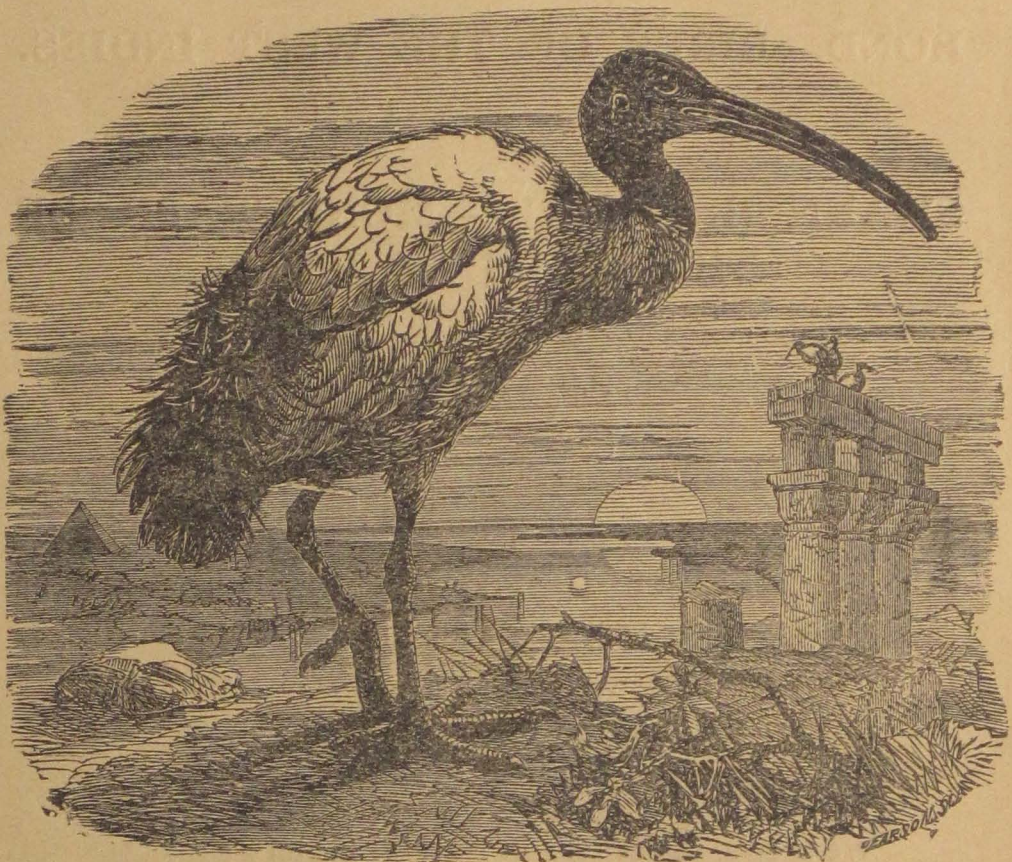
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XXIV.—*The Birds of Bhutan and adjacent Territories of Sikkim and Tibet.*—Part III.* (concluded). By F. LUDLOW, M.B.O.U. With Notes by N. B. KINNEAR, M.B.O.U., Department of Zoology, British Museum (Natural History).

Oriolus chinensis tenuirostris.

2045, ♂, Kuru Chu Valley (5000 ft.), 22. 7.

We brought back only a single specimen; nevertheless this bird occurs in fair numbers in Bhutan in certain localities. We found it between 5000 and 7000 feet in *Pinus longifolia* forest, and I have no record of its occurrence in the breeding season in any other habitat.

Oriolus traillii traillii.

2044, ♂, Kuru Chu Valley (6000 ft.), 22. 7; 2455, ♀, Gamri Chu (6000 ft.), 2. 7.

Seldom seen. A shy bird, and an inhabitant of thick forest.

Uroloncha punctulata punctulata.

2125, 2126, ♂♂, Trashiyangsi (6500 ft.), 31. 7; 2425, ♀, Gamri Chu (3250 ft.), 30. 6; 2440, ♂, Gamri Chu (5000 ft.), 1.7; 3122, ♀, Gamri Chu (7500 ft.), 27. 10; 3137–3139, ♀♀♂,

* For Part II. see *Ibis*, 1937, pp. 249–293.

Gamri Chu (7500 ft.), 28. 10 ; 3155, o, Gamri Chu (6000 ft.), 29. 10 ; 3170, ♀, Trashigong (3000 ft.), 1. 11.

Seen only in east Bhutan, where it was common in cultivated areas between 3000 and 7500 feet.

Perissospiza icteroides affinis.

1930, 1931, ♂♀, Ha (10,500 ft.), 17. 6 ; 2476, 2477, ♂♀, Sakden (11,000 ft.), 6. 7 ; 2534, 2535, ♂ & juv., Mago (14,000 ft.), 27. 7.

A bird of the conifer forests above 9000 feet, where it was more often heard than seen. Nos. 2534 and 2535 were in low rhododendron and juniper scrub well above tree limit in country of the type inhabited by *P. carnipes*.

Perissospiza carnipes carnipes.

1731, 1732, ♂♀, Changu (11,500 ft.), 11. 5 ; 1797, ♀, Sharithang (12,000 ft.), 24. 5 ; 1814, ♂, Sharithang (12,000 ft.), 26. 5 ; 2176, ♂, Me La (13,500 ft.), 4. 8.

A common bird in west Bhutan between 10,000 and 14,000 feet. Scarcer in east Bhutan. In the breeding season it is almost entirely confined to the dwarf juniper zone. Observed in the Mago district. No. 1732 is an albino.

Mycerobas melanoxanthos.

2256, ♂, Khoma Chu Valley (10,000 ft.), 17. 8 ; 2486, ♂, Sakden (10,000 ft.), 8. 7 ; 3046, ♂, Sakden (9000 ft.), 18. 10 ; 3307, 3308, ♀♀, Diwangiri (2000 ft.), 12. 11 ; 3331, ♂, Diwangiri (2000 ft.), 13. 11 ; 3349, ♂, Diwangiri (2000 ft.), 14. 11.

In summer we found this Grosbeak between 10,000 and 12,000 feet in conifer and birch forest in east Bhutan. We found it also in the Hano Chu Valley, near Lhaxhang Dzong (north of the main range), at 11,000 feet. We were unable to shoot any specimens here, but picked up a dead bird.

With the approach of autumn (end of September) these birds began to collect in flocks and became very noisy, especially in the mornings and evenings. As the autumn advanced they descended to lower altitudes, and to our great surprise we found them in large numbers at Diwangiri (2000 feet) feeding on the tops of large trees in thick tropical forest.

Pyrrhula erythrocephala.

1826-1830, ♀♂♂♀♀, Sharithang (11,000 ft.), 27. 5 ; 1842, 1843, ♀♂, Sharithang (11,000 ft.), 30. 5 ; 2103, 2104, ♂♂, Donga La (10,000 ft.), 27. 7 ; 2158, ♀, Shingbe (12,000 ft.), 3. 8 ; 2212, 2219, 2220, ♂♀♀, Shingbe (12,500 ft.), 10. 8 ; 2469, 2470, ♀♂, Sakden (9000 ft.), 4. 7 ; 2827, ♂, Dib La (12,000 ft.), 18. 9.

Common from 9000 feet upwards in Bhutan in summer. Also seen in the Hamo Chu Valley and in the Mago district, Tibet. In May the birds were paired off, and were generally to be found in the vicinity of willows, feeding on catkins.

A tame, quiet bird, which frequently uttered the low musical pipe of its tribe, but never the "sweet song" referred to in the 'Fauna.' We were always on the look out for *P. erythaca*, but did not meet with it.

[A single ♂ in the Pemberton collection.]

Pyrrhula nipalensis nipalensis.

1997, ♂, Trongsa (7500 ft.), 7. 7 ; 2028, ♂, Kuru Chu Valley (6500 ft.), 20. 7 ; 2128, 2129, ♂♀, Trashiyangsi (6500 ft.), 31. 7 ; 2144, ♀, Trashiyangsi Valley (7500 ft.), 1. 8 ; 2232, ♀, Pang La (7500 ft.), 13. 8 ; 2867, ♂, Dib La (9000 ft.), 22. 9 ; 2939, ♀, Trashiyangsi (8000 ft.), 29. 9.

Our experience of this bird in Bhutan hardly agrees with the description in the 'Fauna,' where this Bullfinch is reported to breed "at lofty elevations, probably not under 9000 feet." We have no record of this bird above 9000 feet in summer, and the majority of birds we saw were well below this level. In fact, we found this species replaced by *P. erythrocephala* at the higher elevations. Its flight is swift and direct, and its notes harsher and more noisy than those of any other Bullfinch with which I am acquainted.

Pyrrhoptes epauletta.

1823, ♂, Sharithang (12,000 ft.), 27. 5 ; 1845, 1846, ♂♀ Sharithang (12,000 ft.), 30. 5 ; 1867, ♂, Damthang (10,000 ft.) 2. 6 ; 1886, ♀, Damthang (10,000 ft.), 6. 6 ; 1890, ♀, Damthang (10,000 ft.), 7. 6 ; 2224, ♂, Lao (11,000 ft.), 11. 8 ; 2490, ♂, Sakden (11,000 ft.), 8. 7 ; 2626, ♂, Shingbe (12,750 ft.), 26. 8 ; 2777, ♂, Dib La (11,000 ft.), 12. 9 ; 2835, ♀, Dib La (11,000 ft.),

18. 9 ; 3101, ♂, Sakden (9000 ft.), 23. 10 ; 3143, ♀, Gamri Chu (7500 ft.), 28. 10.

Common throughout Bhutan between 9000 and 13,000 feet in summer. It is most plentiful in the rhododendron zone. Like the true Bullfinches, it keeps very still when feeding, and its note is a low musical pipe. We saw no Crossbills.

Hæmatospiza sipahi.

2027, ♂, Kuru Chu Valley (7500 ft.), 20. 7 ; 2038, ♂, Kuru Chu Valley (8000 ft.), 21. 7 ; 2711, 2712, ♂♂, Tobrang (8000 ft.), 4. 9 ; 2993, ♀, Sana (8000 ft.), 7. 10.

Found in open forest, but rather uncommon.

[Yunnan examples do not differ from Himalayan.]

Propyrrhula subhimachala subhimachala.

1838, ♀, Sharithang (12,500 ft.), 29. 5 ; 2184, ♂, Shingbe (12,500 ft.), 5. 8 ; 2211, 2215, 2217, 2218, ♂♂♂♀, Shingbe (12,500 ft.), 10. 8 ; 2548, ♂, Mago (13,500 ft.), 30. 7.

Normally this Rose-Finch is a great skulker, its favourite habitat being thick willow and rhododendron scrub near the limit of tree-growth. Occasionally, however, it comes out into the open. No. 2548, for example, was shot on the top of a fir-tree, and I have seen it at 14,000 feet in very dwarf juniper. It is a very silent bird.

I find the plumage of this Finch very puzzling. No. 2217 is the only adult bird in red garb. All the other males are in female dress, yet no. 2184 had testes as large as peas.

[The young ♂ in August is distinguished from the ♀ by the absence of any golden colour on the throat and cheeks. A ♀ from Bhutan (10. viii., wing 91 mm.) is darker than a ♀ *intensior* Rothschild from Lichiang Range, Yunnan (vii., wing 94 mm.) and has less yellowish-green above. These differences may be due to wear. There are few specimens of similar dates for comparison, and *intensior* appears doubtfully distinct. Recorded in the 'Fauna,' iii. p. 119, from Bhutan, but on what authority is not stated.]

Pyrrhospiza punicea punicea.

1701, ♂, Changu (12,000 ft.), 6. 5 ; 1709, 1710, ♂♀, Changu (12,000 ft.), 7. 5 ; 1723-1725, ♂♂♂, Changu (12,000 ft.), 9. 5 ; 1729, ♂, Changu (12,000 ft.), 10. 5 ; 2271-2273, ♀♂♀, Kang La

(15,000 ft.), 19. 8 ; 2278, ♂, Kang La (15,000 ft.), 21. 8 ; 2288, ♂, Kang La (15,000 ft.), 23. 8 ; 2343, 2344, ♂♂, Karo La (15,000 ft.), 15. 9.

Here we have another Rose-Finch in which there is a marked deficiency of red males. Setting aside for the moment the Karo La bird, out of the remaining nine males only three are red. The rest are in female garb.

If redness in the male is to be regarded as a sign of maturity, one would have thought that birds nearly a year old would have begun to show some signs of adult plumage. Yet except that the brown males are a little more heavily streaked below, they are indistinguishable from females. Another point of importance is that I do not remember ever having seen any intermediate stage between a brown male and a red one. In fact, it almost looks as if these Finches are dimorphic.

The red Karo La ♂ is a huge bird (wing 123 mm., bill 22) and is either an abnormality or belongs to a different race. The ♀ with which the ♂ was associated is also large, with a wing of 115 mm. or a bill of 17.

[The plumages of this Finch are difficult to understand. Nos. 1729, 2278, 2288 are adult males in full plumage ; no. 1724 (9. v.) is a ♂ in female plumage with " testes very small " ; while nos. 1275, 1701, 1709, 1723 are also males shot in May with the testes undeveloped but much darker in colour, the dark centres to the feathers of the throat and breast broader and darker. Nos. 2271 and 2273 (19. viii.) are in first winter plumage, as shown by two moulting juveniles collected by the Everest Expedition. No. 2272 is a female in similar plumage to nos. 1710 and 2559, fully adult females in the ordinary grey plumage.

3 ad. ♂♂, wing 109–115 mm. ; bill from skull 17.5–19.5.

No. 1724, ♂, wing 110 mm. ; bill from skull 17.

Nos. 1701, 1709, 1723, 1725, ♂♂, wing 104–109 mm. ; bill from skull 17–18.

From this it would appear that the birds in first winter plumage are smaller than the adults, but thirteen adult ♂♂ from Sikkim and Nepal measure : wing 106–117, bill from skull 16.5–18.5 mm.

No. 2343 and 2344, ♂ and ♀, measure : wing 123 mm. ; bill 22.3, wing 115, bill 17, and possibly approach *P. p. longirostris* Przew., but we have no skins for comparison.]

Propasser thura thura.

1691, ♂, Karponang (9000 ft.), 5.5 ; 1717, 1719, ♂♀, Changu (12,000 ft.), 9.5 ; 1735, ♂, Changu (12,000 ft.), 11.5 ; 1799, ♂, Chumpithang (12,000 ft.), 24.5 ; 1817, 1818, ♂♂, Sharithang (11,500 ft.), 27.5 ; 1854, ♂, Chu La (12,500 ft.), 1.6 ; 1924, ♀, Ha (11,500 ft.), 17.6 ; 1937, ♀, Cheli La (12,000 ft.), 21.6 ; 2203, ♂, Me La (14,000 ft.), 8.8 ; 2261, 2262, ♂♂, Narim Thang (14,000 ft.), 18.8 ; 2478, ♂, Sakden (11,000 ft.), 6.7 ; 2538, 2539, ♀♂, Mago (13,500 ft.), 27.7 ; 3072-3074, ♂♀, Sakden (13,000 ft.), 20.10.

The commonest Rose-Finch in Bhutan and Tibet (south of the main range) in summer. Also noted north of the main range near Dongkar.

This is another species in which males are constantly found in female plumage.

[A ♀ in the Pemberton collection. According to Baker ('Fauna,' vol. iii. p. 125), *P. t. dubius* (Przew.), the Kansu race, was found breeding near Gyantse and at Phari by Macdonald, and is a not uncommon winter visitor to eastern Assam. It is curious that this Kansu bird should occur near Gyantse, since a little farther south the typical bird has been collected in April by Macdonald in the Chumbi Valley, where it has also been taken by other ornithologists. The difference between *P. t. dubius* and the Yunnan race *P. t. feminina* Rippon is very slight, and appears only to be the rather broader streaks on the underside in the latter. Kingdon Ward collected a female at Ata Kinga La, Zayul, Tibet, on 9 July, 1933, and this specimen I take to be *P. t. feminina*.]

Propasser pulcherrimus subsp. ?

2316, 2317, ♀♂, Hamo Chu Valley (14,000 ft.), 31.8 ; 2522, ♀, Mago (13,000 ft.), 23.7 ; 2571, 2574, ♂♀, Mago (12,500 ft.), 8.8 ; 2594, 2595, ♂♂, Dongkar (13,500 ft.), 19.8.

We found the Beautiful Rose-Finch both north and south of the Himalayan Range between 12,000 and 14,000 feet.

It was local in its distribution, and was always in fairly open country amongst bushes.

[On geographical grounds these birds should be *P. p. waltoni*, but the skins are in such a worn state that it is impossible to distinguish the race.]

***Propasser edwardsi*.**

1692, ♂, Karponang (9000 ft.), 5. 5 ; 1874, ♀, Damthang (10,000 ft.), 3. 6 ; 2210, ♂, Shingbe (12,500 ft.), 10. 8 ; 2609, ♂, Shingbe (12,750 ft.), 24. 8 ; 2521, ♂, Mago (12,500 ft.), 23. 7 ; 2628, ♀, Shingbe (12,750 ft.), 26. 8 ; 3071, ♂, Sakden (11,000 ft.), 20. 10.

A skulking Rose-Finch and rather uncommon. Found in rhododendron jungle in silver fir forest between 10,000 and 13,000 feet. Not seen north of the main range, though Baker records it as a breeding bird from Gyantse—an unusual locality for a bird which is essentially Cis-Himalayan in its distribution.

[There has been much difference of opinion whether this Rose-Finch can be divided into two races, *P. e. edwardsi* (Verr.), Kansu and Szechwan, and *P. e. saturatus* Blanford, Nepal-Bhutan. According to the above specimens, and those already in the Museum, the colour differences do not hold good, nor is there a difference in size.]

***Carpodacus erythrina roseata*.**

1866, ♂, Damthang (10,000 ft.), 2. 6 ; 1878, ♂, Damthang (10,000 ft.), 4. 6 ; 1883, 1884, ♂♀, Damthang (10,000 ft.), 5. 6 ; 2374, ♂, Jelap La (12,500 ft.), 4. 10.

We did not see this Rose-Finch in Bhutan during the breeding season. The Damthang birds arrived and departed suddenly, and were evidently bound for their breeding grounds farther north. At Dongkar, in the dry zone, north of the main range it was common in mid-August, and evidently breeding.

***Carpodacus rubicilloides lucifer*.**

2351, ♂, Gyantse (13,000 ft.), 24. 9 ; 2588-2590, ♂♀♂, Tsona (14,500 ft.), 11. 8.

These Rose-Finches were fairly plentiful north of the main range between Tsona and the Tulung La, and were found in the same kind of country as *Turdus m. buddhæ*.

[These beautiful Finches have been divided by Meinertzhagen into two races, *C. r. lucifer* (type-locality Chusa, near Mt. Everest) and *C. r. lapersonnei* (type-locality Shushal, Ladak). When Mr. Ludlow was home in 1933 he said that from what he knew of the country he very much doubted the validity of the two races. After a further examination of all the skins in the Museum I have come to the conclusion that *C. r. lapersonnei* cannot stand. The differences Meinertzhagen relied on appear to be due to wear, since all the examples of *C. r. lucifer* are in worn plumage, while those of *C. r. lapersonnei* are fresh or slightly worn. In colour *C. r. lucifer* is practically identical with *C. r. rubicilloides*, but is larger—10 ♂♂, 108–115.5 mm. as against 3 ♂♂, 105–108 in the latter.]

Carpodacus rubicilla severtzovi.

2342, ♂, Karo La (15,800 ft.), 15. 9.

Found in bare Tibetan plateau country on the Lhasa-Gyantse road. Birds seen on the shores of the Yamdrok Tso probably belonged to this species.

Procarduelis nipalensis.

1736, 1737, ♂♂, Changu (11,000 ft.), 11. 5 ; 1912, ♀, Ha (11,000 ft.), 13. 6 ; 2142, ♂, Trashiyangsi Valley (8000 ft.), 1. 8 ; 2159, 2166, 2168, ♂♂♀, Shingbe (12,5000 ft.), 3. 8 ; 2185, 2192, ♂♂, Shingbe (13,000 ft.), 7. 8 ; 2296, ♂, Narim Thang (14,000 ft.), 26. 8 ; 2554, 2555, 2564, ♂♂♀, Mago (14,000 ft.), 3. 8 ; 2601, ♀, near Dongkar (13,000 ft.), 20. 8 ; 2618, ♂, Shingbe (12,750 ft.), 25. 8 ; 2634, ♀, Shingbe (12,750 ft.), 26. 8 ; 2842, ♀, Dib La (12,000 ft.), 10. 9 ; 3110, 3111, ♂♂, Sakden (9000 ft.), 25. 10.

Common in summer between 10,000 and 14,000 feet, chiefly in rhododendron and silver fir forest, but often met with amongst rocks and boulders well above the forest zone. No. 2142 was obtained in mixed conifer and deciduous forest at 8000 feet, an exceptionally low altitude for this bird in summer.

This Finch feeds on the rhododendron blossoms in the spring, and the heads of 1736 and 1737 were covered with pollen grains when shot. The latter bird is in female plumage and has a wing of 85 mm.

[The difference described by Baker between *P. n. nipalensis* Hodgson and his *P. n. intensicolor* are, I think, due to the age of the skins. Specimens from Nepal and Sikkim, collected previous to 1880, are much less intense in colour than Yunnan and Tonkin examples taken in 1918, and from the latter the Bhutan birds cannot be separated. We have one ♂ from Darjeeling taken in 1905 which is darker than the Sikkim birds, but not so dark as the Bhutan. The same remark applies to the females.

Measurements :—

2 ♂♂, Yunnan, Tonkin, 92–96 mm. ; 4 ♀♀, 83–85.

10 ♂♂, Bhutan, 86–93 mm. ; 6 ♀♀, 79–89.

8 ♂♂, Sikkim, 88–94 mm. ; 6 ♀♀, 74–78.

Until further specimens from Yunnan are available I do not think *intensicolor* can be recognized.]

Procarduelis rubescens.

1933, ♂, Ha (11,000 ft.), 17. 6 ; 2258, ♀, Khoma Chu Valley (10,500 ft.), 17. 8.

Rare. The specimens obtained were shot in conifer and birch forest.

[The single ♂ is much richer crimson than Sikkim skins in the Museum, and even more so than the specimens of *saturatus* Rothschild from Yunnan. This suggests another case of change of colour due to the age of the skins.

6 ♂♂, Nepal–Bhutan, 80–85 mm. ; 4 ♀♀, Sikkim–Bhutan, 76–80.

2 ♂♂, Yunnan, 83–84 mm. ; 3 ♀♀, Sikkim–Bhutan, 78–80.

P. r. saturatus must, I think, be regulated to the synonymy of *P. rubescens*.]

Acanthis flavirostris rufostrigata.

2334, ♂, Karo La (15,000 ft.), 14. 9.

Abundant in Tibet north of the Himalayan Range.

Hypacanthis spinoides spinoides.

1895–1897, ♀♂♂, Damthang (10,000 ft.), 9. 6 ; 1919, ♂, Ha (10,000 ft.), 16. 6 ; 1975, ♂, near Trongsa (9000 ft.), 4. 7 ; 2145, ♂, Trashiyangsi Valley (8000 ft.), 1. 8 ; 2500, 2501, ♀♂, Sakden (9000 ft.), 10. 7 ; 2721, ♂, Tobrang (8000 ft.), 5. 9.

One of the commonest of the Finches in summer in the more open forests between 6000 and 10,500 feet. We saw no Siskins.

[Mentioned in the 'Fauna' as occurring in Bhutan, but I know of no previous record.]

Passer montanus tibetanus.

1836, ♂, Sharithang (11,000 ft.), 29. 5 ; 2471, ♀, Sakden (9000 ft.), 5. 7 ; 2506, ♂, Tsona (14,500 ft.), 15. 7 ; 2513, ♂, Tsona (14,500 ft.), 18. 7 ; 3079, ♂, Sakden (9000 ft.), 21. 10 ; 3107, ♀, Sakden (9000 ft.), 24. 10.

Passer montanus tibetanus × malaccensis.

2421, ♂, Ronglung, near Trashigong (5000 ft.), 22. 6.

Not a common bird in Bhutan by any means, and very locally distributed. Common in Tibet north of the main range wherever there are villages.

[Baker ('Fauna,' iii. p. 179) and Meinertzhagen (Ibis, 1927, p. 391) have written at length on the Tree-Sparrow of Sikkim and Tibet. Specimens from Bhutan, from 9000 feet upwards, and Tibet are darker, with the rump greyish-brown, instead of fawn-brown as in Sikkim birds, which appear to be indistinguishable from true *P. m. malaccensis* (Malay Peninsula). They also are larger :—

8 ♂♂, Malay Peninsula, 64–69 mm. ; 6 ??, Sikkim, 66–67 ; 1 ♂, Bhutan, Ronglung, 72 (5000 ft.) ; 2 ♂♂, Bhutan (9–11), 71.5–78 ; 1 ♂, Tibet–Tsoma, 80 ; 7 ♂♂, Tibet–Gyantse and Tingri, 76–79.5.

The Ronglung bird has the colour of the rump intermediate between *tibetanus* and *malaccensis*. The Tibetan race of the Tree-Sparrow is in colour intermediate between *P. m. montanus* and *P. m. malaccensis*.]

Passer rutilans cinnamomeus.

1899–1902, ♀♂♀♂, Damthang (10,000 ft.), 9. 6 ; 2466, 2467, juv. & ♂, Sakden (9000 ft.), 3. 7 ; 2472, ♂, Sakden (9000 ft.), 5. 7 ; 2591, ♀, Tsona (14,500 ft.), 15. 8 ; 3016, ♀, Trashiyangsi Valley (6000 ft.), 11. 10 ; 3069, ♂, Sakden (13,000 ft.), 20. 10.

A commoner bird than *P. montanus* in Bhutan. Occurs also in Tibet. No. 2467 is an albino. Stevens obtained no specimens in Sikkim.

[I still think there is very little colour difference, if any, between the races of this Sparrow from the East and West Himalayas if birds in the same state of plumage are compared. Meinertzhagen considers that birds from Assam and Burma would be most conveniently placed with *P. r. debilis*, the West Himalayan race, in regard to size, but the females certainly agree with *intensior*, the Yunnan race, in colour.]

Montifringilla nivalis adamsi.

2509, ♀, Tsona (15,000 ft.), 18. 7 ; 2593, ♂, Tsona (15,000 ft.), 15. 8.

We did not see this bird in Bhutan, but found it abundant on the Tibetan Plateau.

Montifringilla taczanowskii.

2325, ♂, Pomo Tso (16,000 ft.), 10. 9 ; 2328, 2329, ♂♂, Pomo Tso (16,000 ft.), 10. 9 ; 2592, ♂, Tsona (15,000 ft.), 15. 8.

Common on the Tibetan Plateau wherever there are colonies of mouse-hares, with which it seems to be permanently associated. I have obtained this bird in Tibet as far west as Gartok, on the Indus. A strictly sedentary species.

[The juvenile is greyer on the head than the adult. There are no specimens in the Museum from Sikkim, and I do not know on what authority Baker includes it in British India.]

Montifringilla ruficollis.

2324, 2327, ♂♀, Pomo Tso (16,000 ft.), 10. 9 ; 2363, ♂, Hram Tso (14,800 ft.), 28. 9.

Abundant on the Tibetan Plateau ; *M. blanfordi* was not met with.

Fringalauda nemoricola nemoricola.

1718, ♀, Changu (12,000 ft.), 9. 5 ; 1728, ♂, Changu (12,000 ft.) 10. 5 ; 2603, ♀, Cho La (14,200 ft.), 20. 8.

We did not see this bird very frequently. It appears to belong to the transition zone, never extending very far north

or south of the main range. A sprightly bird, rather shy, with a quick determined flight.

[Five unsexed skins and one female in the Pemberton collection.]

Fringalauda brandti hæmatopygia.

1707, ♂, Changu (12,000 ft.), 7. 5 ; 1738, ♂, Changu, (12,000 ft.), 11. 5 ; 2335, 2336, ♂♂, Karo La (15,000 ft.), 14. 9 ; 2578, ♂, Dza La (16,000 ft.), 10. 8.

Common in suitable localities on the Tibetan Plateau. Stevens failed to obtain this bird in Sikkim, though Meinertzhagen got it at Gyagong (15,750 feet) in November. We were rather surprised to meet with it at Changu in early May.

Emberiza cia khamensis.

Emberiza godlewski khamensis Suskin, Proc. Boston Soc. N. H. vol. xxxviii. p. 26, 1925 : Dza-chu, Kham, Tibet.

2319, ♂, Lhaxhang Dzong (10,000 ft.), 1. 9.

No Buntings belonging to this genus were seen in Bhutan during the breeding season. At Lhaxhang Dzong, in the dry zone, they were common, and they were also seen up the Kuru Chu Valley as far as Towa. In 1934 Meadow-Buntings, which presumably belonged to this race, were plentiful in the Nyam Jang Chu Valley at Dongkar, also in the dry zone.

[This species appears in the 'Fauna' under the name *E. c. godlewskii*, and is said to occur in winter in Sikkim and hills north of Assam. I can find no record of its occurrence in British India, though Mr. Ludlow in 1924 obtained specimens at Gyantse. Owing to the abrasion of the brown edges to the feathers this specimen appears dark.]

Melophus lathami suberistatus.

1957, 1958, ♀♂, Wangdi Potrang (4500 ft.), 2. 7 ; 2049, ♂, Linji (5000 ft.), 23. 7.

The Crested Bunting is a characteristic bird of the dry zone in the big river valleys between 3500 and 6000 feet.

[The first birds are in very worn plumage and beginning to moult, while the third specimen has completed its moult.]

Delichon urbica cashmeriensis.

2183, ♂, Shingbe (14,000 ft.), 5. 8; 2201, ♀, Shingbe (14,500 ft.), 8. 8; 2207, ♀, Shingbe (13,000 ft.), 10. 8; 2247, ♂, Pang La (14,000 ft.), 14. 8; 2671, 2672, ♂♂, Tobrang (8000 ft.), 31. 8; 2973, 2974, ♂♂, Sana (8000 ft.), 5. 10; 3040, ♂, Gamri Chu (5000 ft.), 16. 10.

Common in summer between 7000 and 14,000 feet in Bhutan. Also noted at Towa and Lhalung in Tibet. Stevens did not meet with this species in Sikkim.

[Mr. Whistler compared the above specimens with his series from Kashmir and could find no difference in colour or size.]

Delichon nipalensis.

3044, ♀, Gamri Chu (7000 ft.), 17. 10.

A large colony of these birds was met with in the Gamri Chu Valley, but we saw them nowhere else.

They inhabited a steep cliff-face, where numerous nests showed they had been breeding.

Krimnochelidon rupestris.

None was seen in Bhutan. The Crag-Martin was common between Lhakhang and Gyantse, north of the Himalayan Range.

[Represented in the Pemberton collection.]

Hirundo daurica daurica.

3039, ♀, Gamri Chu (4000 ft.), 15. 10; 3195–3197, ♂♂♀, Yönpu La (8000 ft.), 3. 11.

No Striated Swallows were seen in Bhutan in summer, but in mid-October a few were observed in the Gamri Chu Valley mixed up with flocks of House-Martins and Swifts (*Collocalia*). On 3 November a stream of these birds passed over the Yönpu La. They were heading due south, flying very wearily, and appeared to be on migration.

[No. 3197 still has the juvenile wing-coverts, upper tail-coverts, and tail, also some of the feathers of the head.]

Motacilla alba alboides.

1898, ♀, Damthang (10,000 ft.), 9. 6.

A few birds were seen in the river-beds of western Bhutan

between 8000 and 10,000 feet. They were paired off and appeared to be breeding, but we discovered no nests.

[One in the Pemberton collection.]

Motacilla alba leucopsis.

2263, ♂, Narim Thang (14,000 ft.), 18. 8 ; 2607, ♀, Me La (14,000 ft.), 22. 8.

No. 2607 was obtained out of a large flock which suddenly appeared from the north as we were lunching by the side of a glacier stream. They appeared to be early migrants.

Pied Wagtails were noticed frequently between Towa and Gyantse in September.

Motacilla cinerea caspica.

2875, ♂, Dib La (9000 ft.), 23. 9.

One of a pair. Apart from these two birds I have no other record from Bhutan.

[One in the Pemberton collection.]

Motacilla citreola calcarata.

2315, ♂, Pü La (15,000 ft.), 30. 8 ; 2366, ♀, Hram Tso (14,800 ft.), 29. 9.

Not seen in Bhutan. Common in Tibet north of the Himalayan Range in suitable localities.

Anthus hodgsoni berezowskii.

1786, ♂, Sharithang (11,500 ft.), 21. 5 ; 1824, ♂, Sharithang (11,500 ft.), 27. 5 ; 1844, ♂, Sharithang (11,000 ft.), 30. 5 ; 1887, ♀, Damthang (10,000 ft.), 6. 6 ; 1923, ♀, Ha (11,000 ft.), 17. 6 ; 1981, ♂, near Trongsa (11,000 ft.), 5. 7 ; 2080, ♂, Donga La (10,500 ft.), 26. 7 ; 2483, ♂, Sakden (9500 ft.), 7. 7 ; 2528, 2529, ♂♂, Mago (11,500 ft.), 25. 7 ; 3006, ♀, Sana (8000 ft.), 8. 10 ; 3199, ♂, Jiri Chu (5000 ft.), 4. 11.

Common throughout Bhutan between 8000 and 12,000 feet. It inhabits grassy downs and open glades in forested country. Breeds May and June. Numerous nests taken.

Anthus richardi godlewskii.

2360, ♂, Khangma (13,900 ft.), 26. 9 ; 2367, ♀, Tuna (14,800 ft.), 30. 9 ; 2371, ♀, Phari (14,300 ft.), 2. 10.

Observed only on the Tibetan Plateau, where these birds appeared to be on migration.

I obtained this Pipit on the shores of Lake Rakas Tal (near Mount Kailas), in western Tibet, in September 1932.

[The eastern representatives of the *richardi* group of Pipits badly need revision and, as far as it is possible to say at present, the above three birds are typical *godlewskii*. It is not certain as to what species the birds breeding in the Assam Hills belong ('Fauna,' vol. iii. p. 289).]

Anthus richardi rufulus.

2382, ♀, Darrang (500 ft.), 20. 6.

Fairly common at the base of the foothills on the Assam plains.

Anthus roseatus.

1693, ♂, Karponang (9000 ft.), 5. 5; 1716, ♂, Changu (11,500 ft.), 8. 5; 1742, ♂, Changu (12,000 ft.), 11. 5; 2170, ♂, Me La (13,000 ft.), 4. 8; 2266, o, Narim Thang (14,000 ft.), 18. 8; 2290, ♂, Narim Thang (14,000 ft.), 24. 8; 2543, ♀, Mago (14,500 ft.), 28. 7; 2563, ♂, Mago (14,000 ft.), 2. 8.

Common in summer in the alpine zone.

Otocorys alpestris elwesi.

2340, ♂, Karo La (15,000 ft.), 14. 9; 2362, juv., Kala (14,500 ft.), 27. 9; 2507, 2508, ♀♂, Tsona (15,000 ft.), 18. 7.

Abundant on the Tibetan Plateau.

Melanocorypha maxima.

2333, ♂, Nangkartse (14,700 ft.), 13. 9.

Common locally on the Plateau. They were feeding in large numbers in the fields at Talung, on the shores of the Kamdrok Tso, and appeared to be breeding on the Tsona marshes in July.

This Lark extends right across the Tibetan Plateau from east to west. I have shot it near Garto, in western Tibet, and in recent years it has been obtained at Hanle, in Ladak.

***Alauda arvensis* subsp. ?**

1959, ♂, Wangdi Potrang (5000 ft.), 2. 7; 1965, 1966, o♂, Riang, near Krongsa (8500 ft.), 4. 7; 2069, ♂, Donga La (8500 ft.), 25. 7; 2417, ♂, Yönpu La (8000 ft.), 27. 6.

Stevens failed to meet with Sky-Larks in Sikkim, but Meinertzhagen secured a male of the small Indian Sky-Lark at 4500 feet in January at Dentam.

This bird is by no means uncommon in Bhutan during the breeding season on open grassy hill-slopes at 8000 feet. It was particularly abundant on the downs on top of the Yönpu La in June, but was absent from this locality when we returned in November.

We collected no Sky-Larks in Tibet north of the Himalayan Range, though we saw them at various places between Towa and Gyantse. These Plateau birds, presumably, were *inopinata*, which is a resident bird.

[No. 2372, from Phari, is a freshly moulted bird and much richer coloured than any of our skins of *A. a. inopinata*, which on geographical grounds it should be. The other specimens are all too dark for *inopinata*, and appear to be nearer *A. a. weigoldi* Stresemann. There are two in the Pemberton collection.]

Calandrella acutirostis.

2323, ♀, Pomo Tso (16,000 ft.), 10. 9.

A common bird on the Plateau between 13,000 and 16,000 feet, where it breeds.

Calandrella brachydactyla dukhunensis.

2359, ♂, Khangma (13,900 ft.), 26. 9.

In large flocks on the Plateau on autumn migration.

Zosterops palpebrosa palpebrosa.

2388, ♂, Satsalor (2000 ft.), 23. 6 ; 2407, ♂, Khomanagri (4000 ft.), 25. 6 ; 2444, ♀, Gamri Chu (5000 ft.), 1. 7 ; 3034, 3035, ♂♂, Gamri Chu (4000 ft.), 15. 10 ; 3306, ♀, Diwangiri (2000 ft.), 12. 11.

Tolerably common up to 5000 feet in summer.

Æthopyga siparaja seheriæ.

2443, ♂, Gamri Chu (3250 ft.), 1. 7 ; 3302, 3303, ♂♂, Diwangiri (2000 ft.), 12. 11.

A bird of the evergreen zone. Not seen above 3500 feet.

[A male in the Pemberton collection. There does not appear to be any difference between the type of *A. s. viridicauda*

Baker, shot in Tengyueh, N.W. Yunnan, in June, and a male from Gamri Chu in July. This is rather surprising since *A. s. seheriæ* is a bird of low elevation and heavy forest, whereas the Yunnan bird is found from 5000 feet in open scrub.]

Æthopyga ignicauda ignicauda.

1747, 1748, ♂♂, Changu (11,500 ft.), 11. 5 ; 1831, ♂, Sharithang (12,500 ft.), 28. 5 ; 2100, ♂, Donga La (11,500 ft.), 27. 7 ; 2164, 2165, ♂♂, Shingbe (12,750 ft.), 3. 8 ; 2208, 2209, 2222, 3 juvs., Shingbe (12,750 ft.), 10. 8 ; 2489, ♂, Sakden (12,000 ft.), 8. 7 ; 3189, ♀, Yönpu La (8000 ft.), 3. 11 ; 3220, ♀, Khomanagri (4000 ft.), 5. 11 ; 3251, ♂, Chungkar (6000 ft.), 8. 11.

Common in Bhutan and also in Tibet south of the main axis. In summer it is confined to the conifer and rhododendron zone above 10,000 feet. I have a record of it at 13,500 feet in rhododendron scrub on the passes north of Tawang.

[The juvenile male is similar to the female, but has a patch of reddish feathers at the junction of throat and breast. Males in complete, or nearly complete, plumage are found from March to August. At other times of the year they are similar to the female, but the lower back is paler yellow, the upper tail-coverts crimson, and the tail-feathers, which are as short as in the female, edged with crimson ; below, the belly and breast are yellow, with orange patch on the lower breast*. A male in fresh plumage was obtained in the Chumbi Valley at 10,000 feet in May by the native collector of the Second Everest Expedition.

Baker has separated the Yunnan race as *A. i. exultans* on account of the greater amount of crimson on the breast and deeper colour above, but the latter is not the case, and colour of breast is not constant.

There are two skins in the Pemberton collection.]

Æthopyga gouldiæ gouldiæ.

1782, 1787, 1788, ♀♂♂, Sharithang (11,000 ft.), 22. 5 ; 1860, ♂, Damthang (10,000 ft.), 2. 6 ; 1990, ♀ juv., near Trongsa

* See Ibis, 1935, p. 197, for moult of this species.

(8000 ft.), 6. 7 ; 2411, ♂, Jiri Chu (6500 ft.), 26. 6 ; 2658, ♀, Tobrang (8000 ft.), 31. 8 ; 3240, ♂, Chungkar (6000 ft.), 7. 11.

An inhabitant of the deciduous and lower coniferous zone in Bhutan. Perhaps the least common member of the genus.

Æthopyga saturata saturata.

1679, ♂, Gangtok (6000 ft.), 2. 5 ; 2050, 2051, ♂♀, Linji (4500 ft.), 24. 7 ; 2422, ♂, Gamri Chu (5000 ft.), 1. 7 ; 3313, 3326, ♂♀, Diwangiri (2000 ft.), 13. 11.

Fairly common on the outskirts of thick jungle, chiefly in the evergreen zone. It goes higher than *A. s. seheriæ*, and I have records up to 6500 feet.

[3 ♂♂ in the Pemberton collection.]

Æthopyga nipalensis nipalensis.

1996, ♂, Trongsa (8000 ft.), 7. 7 ; 2004, ♂, Yuto La (9500 ft.), 9. 7 ; 2065, ♂, Donga La (9000 ft.), 25. 7 ; 2112, ♂, Trashiyangsi (8000 ft.), 28. 7 ; 2473, ♂, Sakden (9000 ft.), 5. 7 ; 2677, ♂, Tobrang (8000 ft.), 1. 9 ; 2662, 2623, juv. & ♂, Tobrang (8000 ft.), 31. 8 ; 2726, ♀, Trashiyangsi (6000 ft.), 6. 9 ; 2946, ♀, Trashiyangsi (6000 ft.), 30. 9 ; 3008, ♂, Trashiyangsi (6000 ft.), 10. 10.

Has more or less the same distribution as *A. g. gouldiæ* in summer, but is far commoner.

Arachnothera magna.

2406, ♂, Chungkar (5000 ft.), 25. 6 ; 3334, ♀, Diwangiri (2000 ft.), 13. 11.

Common at Diwangiri, and noted in open oak forest at 5000 feet in summer.

Dicæum ignipectus ignipectus.

2420, ♀, Yönpu La (7500 ft.), 27. 6 ; 3169, ♂, Trashigong (5000 ft.), 1. 11 ; 3212, 3218, ♂♂, Khomanagri (4000 ft.), 5. 11 ; 3312, o, Diwangiri (2000 ft.), 12. 11.

Not seen above 7500 feet, though in the 'Fauna' it is recorded up to 12,000 feet in Sikkim. Common near Trashigong in dense scrub.

[Stevens gives 10,000 feet as the highest elevation this species is found at in Sikkim. A ♂ and ♀ in the Pemberton collection.]

Pitta nipalensis.

3333, ♀, Diwangiri (2000 ft.), 13. 11.

Shot in dense tropical forest, where it was scuttling about on the ground in the dense undergrowth. As I pressed the trigger I said to myself "a rat." When I picked it up I thought it was *Cochoa viridis*, nor did I discover my mistake until some time later.

Picus chlorolophus chlorolophus.

2123, ♀, Trashiyangsi (6000 ft.), 30. 7 ; 3284, ♀, Satsalor (3000 ft.), 10. 11 ; 3310, ♂, Diwangiri (2000 ft.), 12. 11.

A tame bird, and scarce above 4000 feet.

[A ♂ collected at Boomdung on 28 February, 1838, is in the Pemberton collection.]

Chrysophlegma flavinucha flavinucha.

2036, ♂, Kuru Chu Valley (7500 ft.), 21. 7.

Noted up to 8000 feet, but seldom seen above 5000. Uncommon.

Hypopicus hyperythrus hyperythrus.

1877, ♀, Damthang (10,000 ft.), 4. 6 ; 1995, ♂, near Trongsa (7500 ft.), 6. 7 ; 2401, ♀, Chungkar (5000 ft.), 25. 6 ; 2481, ♂, Sakden (9500 ft.), 7. 7 ; 2652, ♂, 30. 8 ; 2665, juv., Tobrang (8000 ft.), 31. 8 ; 2735, ♂, Trashiyangsi (7000 ft.), 9. 9 ; 2992, ♂, Sana (8000 ft.), 7. 10.

Although this Woodpecker overlaps with the next species it is more often found at lower elevations, and is certainly less common.

Dryobates darjellensis.

1761, 1762, ♂♀, Yatung (10,000 ft.), 15. 5 ; 1859, 1868, ♀♂, Damthang (10,000 ft.), 2. 6 ; 1904, ♂, Damthang (10,000 ft.), 10. 6 ; 2090, ♂, Donga La (10,000 ft.), 26. 7 ; 2115, 2116, ♂♀, Trashiyangsi (7500 ft.), 28. 7 ; 2414, ♀, Jiri Chu (6500 ft.), 26. 6 ; 2503, ♂, Sakden (11,000 ft.), 10. 7 ; 2860, ♂, Dib La (9000 ft.), 22. 9.

The commonest Woodpecker in Bhutan from 7500 feet upwards in all kinds of forest.

Dryobates cathpharius cathpharius.

2135, ♀, Trashiyangsi (6500 ft.), 1. 8 ; 3263, ♀, Chungkar (6000 ft.), 8. 11.

Scarce. A bird of lower elevations than either of the preceding species.

[Horsfield and Moore record in their Catalogue two specimens received from Pemberton. Only one, a ♂, no. 28, is now in the Museum, and it came from Assam, not Bhutan.]

Yungipicus nanus semicoronatus.

3162, ♂, Gamri Chu (3000 ft.), 31. 10 ; 3345, ♂, Diwangiri (2000 ft.), 14. 11.

Scarce. Noted only in thin forest at low altitudes.

Micropternus brachyurus phaiiceps.

3316, ♂, Diwangiri (2000 ft.), 12. 11.

Seen only at low elevations in the evergreen zone.

Vivia innominata innominata.

3224, ♀, Khomanagri (4000 ft.), 5. 11 ; 3344, ♂, Diwangiri (2000 ft.), 14. 11.

Uncommon. Not seen above 4000 feet.

Sasia ochracea ochracea.

3354, ♂, Diwangiri (2000 ft.), 14. 11.

Not seen above 4000 feet.

Megalaima virens magnifica.

2042, 2043, ♂♀, Kuru Chu Valley (6500 ft.), 22. 7 ; 3235, 3238, ♂♀, Chungkar (6000 ft.), 7. 11.

Common between 4000 and 6000 feet in east Bhutan.

[There are two skins in the Pemberton collection, one, with an original label, which came from Assam, but the second was formerly mounted, and the Museum label gives Bhutan as the locality. All the above skins are more richly coloured than *marshallorum*, and agree with birds from Manipur. *Marshallorum* : 3 ♂♂, wing 143–148 mm., 2 ♀♀, 145–149 ; *magnifica* : 9 ♂♂, wing 138–146.5 mm., 5 ♀♀, 136–144.]

Cyanops asiatica asiatica.

2422, ♂, Gamri Chu (3250 ft.), 30. 6 ; 3027, 3028, ♂♂, Manas Valley (near Trashigong) (3000 ft.), 12. 10.

Common up to 4000 feet in east Bhutan.

Cyanops franklini franklini.

1687, ♂, Gangtok (6000 ft.), 4. 5 ; 3249, 3262, ♀♀, Chungkar (6000 ft.), 8. 11.

Inhabits a higher altitudinal zone than *asiatica*, at any rate in summer.

Cuculus canorus bakeri.

1920, ♂, Ha (10,000 ft.), 16. 6 ; 1927, ♂, Ha (10,000 ft.), 17. 6 ; 1934, ♀, Ha (10,000 ft.), 19. 6 ; 2424, ♂, Gamri Chu (3250 ft.), 30. 6 ; 2763, ♂, Dib La (11,000 ft.), 11. 9.

Common in Bhutan at various elevations in summer ; *C. poliocephalus* was heard on various occasions in east Bhutan, but no specimens were obtained.

[These specimens agree with topotypes of this race. According to Horsfield and Moore, Pemberton sent a ♂ and ♀ *canorus* to the East India Company's Museum, but we have only the latter now. Griffith mentions that a Cuckoo was shot near " Telegaum " on 11 May.]

Cuculus poliocephalus poliocephalus.

2254, juv., Sawang (7000 ft.) 15. 8.

Was heard on various occasions in east Bhutan.

[This single specimen, just out of the nest, is in the dark phase of plumage. There are in the Museum thirty-six juveniles from India, Assam, Yunnan, and China, of which twenty-five are in the hepatic or red phase and eight are dark.]

Centropus bengalensis bengalensis.

2438, ♀, Gamri Chu (5000 ft.), 1. 7.

Occasionally seen in suitable localities in east Bhutan between 4000 and 6000 feet.

[Griffiths mentions seeing near " Balfai," at about 9500 feet, a brick-red and black bird which was probably this species.]

Coracias bengalensis affinis.

2654, ♀, Tobrang (8000 ft.), 30. 8.

A solitary bird. We saw no Rollers elsewhere in Bhutan.

[A ♀ in the Pemberton collection in which the under wing-coverts are slightly intermediate. An example was obtained in the Chumbi Valley on 12 July by the Second Everest Expedition.]

Alcedo atthis subsp.

Scarce. Noted at Paro in west Bhutan, where we were unable to shoot. The subspecies is probably *bengalensis*, for the Sikkim bird and the bird which is occasionally seen on the Tibetan Plateau near Gyantse both belong to this race.

Alcedo hercules.

3356, ♂, Diwangiri River (500 ft.), 15. 11.

The only bird seen.

Ceryle lugubris guttulata.

Often seen on the large rivers between 2000 and 6000 feet in east Bhutan.

Dichoceros bicornis bicornis.

None seen in 1933. In June 1934 a pair noted at Satsalor. On our return journey in November we saw large flocks (20–30) of this magnificent Hornbill at 5000 and 6000 feet near Chungkar.

Upupa epops saturata.

1978, ♂, near Trongsa (7500 ft.), 4. 7.

Seen throughout Bhutan in summer from 5000 feet upwards, but nowhere common. Much commoner in Tibet north of the main range.

Harpactes erythrocephalus erythrocephalus.

3198, ♀, Jiri Chu (3000 ft.), 4. 11; 3342, ♀, Diwangiri (2000 ft.), 14. 11; 3352, ♂, Diwangiri (2000 ft.), 14. 11.

Not uncommon in the dense evergreen forests of east Bhutan up to 3000 feet.

Harpactes wardi.

2749, ♀, Dib La (8000 ft.), 10. 9.

Bhutan represents a great extension westwards of the previous known range of this rare Trogon. It was originally discovered by Kingdon Ward in the Seinghku Valley of north Burma in 1926. In 1929 Delacour found it abundant in the Fan-si-pan Mountains of French Indo-China (Ibis, Oct. 1930, p. 572). Ward's specimen and our own are both females and agree with Indo-China females. The only known males are

from Indo-China. This seems to be rather a high altitude Trogon. The bird obtained was one of a pair and was shot in thick oak forest.

[*Micropus affinis nipalensis.*

Two in the Pemberton collection.]

Micropus pacificus leuconyx.

2047, o, Lhüntse (5000 ft.), 23. 7.

Frequently seen in Bhutan between 5000 and 6000 feet, but we were able to obtain only a single specimen. *Micropus affinis* subsp. was plentiful around the Dzong at Trashigong, but we were unable to shoot.

[The only specimens in the Museum with definite localities are from Chumba, Simla, N. Kanara (3), and two in the Pemberton collection from Bhutan.]

Hirundapus caudacutus nudipes.

2055, ♂, Donga La (10,000 ft.), 25. 7.

Large numbers of these were met with on the Donga La, but we were able to obtain only a single specimen. Shooting Spine-tails with a .410 bore loaded with dust is not easy.

[A single specimen in the Pemberton collection.]

Collocalia fuciphaga brevirostris.

2611, 2619–2622, ♀♀♂♂, Shingbe (12,750 ft.), 26. 8 ; 2692, ♂, Tobrang (8500 ft.), 2. 9 ; 3041, ♂, Gamri Chu (5000 ft.), 16. 10 ; 3171, ♂, Yönpu La (8000 ft.), 2. 11.

Common. Frequently associates with House-Martins.

[The primaries are in moult in the last two specimens.]

Caprimulgus indicus jotaka.

1907, ♂, Damthang (10,000 ft.), 10. 6 ; 2111, ♀, Trashiyangsi (6500 ft.), 28. 7.

Observed up to 9000 feet. Not often seen.

Strix aluco nivicola.

2072, 2073, ♀♂, Donga La (10,000 ft.), 26. 7.

The only birds seen. Obtained in mixed deciduous and conifer forest.

[No. 2072 is a juvenile assuming adult plumage. From Nepal eastwards all the skins in the Museum, with the exception of a juvenile from the Lichiang Range, Yunnan, and an adult

from Peking, are much more rufous than Simla-Kumaon birds. In the eastern part of this bird's range there are two phases, a very rufous and a greyish-rufous.]

Ketupa flavipes.

3168, ♂, Gamri Chu (3000 ft.), 31. 10.

A solitary bird in dense tropical forest.

Otus spilocephalus spilocephalus.

2136-2138, ♀ & 2 juvs., Trashiyangsi Valley (7500 ft.), 1. 8.

Obtained in thick deciduous forest.

[The two juveniles are more rufous than the adult. The heads are barred with narrow black lines, the back with broader ones, while on the underside they are also present but very faint.]

Otus bakkamœna lettia.

2734, ♀, Trashiyangsi (6000 ft.), 8. 9 ; 3157, ♀, Gamri Chu (6000 ft.), 29. 10.

These two birds are very dark and heavily marked.

Glaucidium brodei brodei.

2223, ♀, Trashiyangsi Valley (10,000 ft.), 11. 8 ; 3271, ♀, Satsalor (4000 ft.), 9. 11.

We should have passed these birds unnoticed but for the clamours of Yuhinas, which were mobbing them.

[It is well known that many species of Owl have a grey and rufous phase of plumage. These colour-phases in some species are correlated with distribution, for instance in *Otus spilocephalus*, but in the present case there is no connection. We have in the British Museum over 100 skins of this Owl from Kohat on the N.W. Frontier of India to Fokien in South China, and when arranged as regards colour fall into six groups:—

(1) Rufous type, in which both the back and head are strongly washed with rufous, bars on back light rusty-brown. Sikkim, 11.

(2) Similar to (1) as regards the colour of the back, but head decidedly less rufous and bars paler. Nepal, 1 ; Sikkim, 9.

(3) Less rufous than (2), especially on the head, which has a greyish tinge. Kohat-Kumaon, 21 ; Nepal, 2 ; Sikkim, 9

Bhutan, 1 ; hills of north Brahamaputra, 3 ; Khasia Hills, 4 ; Manipur, 2 ; Shan States, 1 ; Tenasserim, 3 ; Malay Peninsula, 1 ; Fokien, 12.

(4) Greyer on the back than (3), bars less rufous, tending to become white. Head grey, with white markings very slightly tinged with buff. Sikkim, 2 ; Shan States, 3 ; Tenasserim, 3 ; Fokien, 3.

(5) Back darker than (4), but otherwise similar. Nepal, 1 ; Sikkim, 2 ; hills north of Brahmputra, 2 ; Shan States, 1 ; Yunnan, 1 ; Malay Peninsula, 1 ; Indo-China, 1 ; Fokien, 1.

(6) General colour grey-brown, barring on back almost pure white, head very grey. Nepal, 1 ; Sikkim, 8.

From the above it will be seen that only in Sikkim do all the different colour phases occur, and that the two extremes, the grey and the rufous, are found nowhere else. In the western Himalayas all the birds come under one group (3), but the majority of Fokien skins are quite indistinguishable from them, and many examples also occur in the intervening areas. Except in the two extreme phases there is a considerable variation.

Measurements :—

5 ♂♂, Kohat-Kumaon, 88-97 mm. ; 9 ♀♀, 95-101.

4 ♂♂, Sikkim, 85-92 mm. ; 3 ♀♀, 94-99.

7 ♂♂, Assam-Tenasserim, 85-91 mm. ; 6 ♀♀, 91-97.

9 ♂♂, S. China, 92-95 mm. ; 5 ♀♀, 85-96.

It does not seem possible therefore to recognize *G. b. tubiger* Hodgson from Nepal. Formosan birds, *G. b. pardalotum* Swinhoe, can be distinguished by the different markings on the flanks, and in colour the series of eleven skins in the Museum fall into Group (3), six ; Group (2), three ; and Group (5), two.

In the ' Fauna ' Baker implies that Blanford suggested only doubtfully that the plain-backed birds were juveniles, but Blanford distinctly says :—" The young are much more uniformly coloured above ; they have very few buff streaks on the head and no bars either there or on the mantle." Baker states that he has seen juveniles with barred heads and backs like the adults ! This is not borne out by the birds

in the Museum, where there are several juveniles with uniform backs and faintly streaked heads, including one, without date, from Assam, the type of Gould's *minutilla*. One bird obtained in Sikkim in July cannot long have left the nest, as the wing-feathers and tail are not fully grown. In another the barred back of the adult has been assumed, but the head is still faintly streaked and adult barred feathers are moulting in. A juvenile from Simla is paler brown than one from Sikkim and the type of *minutilla*, while Mr. Ludlow's from Bhutan is very dark, and may possibly represent the grey phase of the adult.]

Gypaëtus barbatus grandis.

Often seen both in Bhutan and Tibet.

Falco cherrug hendersoni.

2332, ♂, Yamdrok Tso (16,500 ft.), 11. 9

One of a pair obtained on the mountains overlooking the Yamdrok Tso. Another pair was seen at Ralung on 16. 9. 33, and a ♂ was obtained at Gyantse on 29. 11. 23 (Ibis, April 1928, p. 214). I doubt if this bird breeds in Southern Tibet. At any rate I never saw it at Gyantse in the breeding season during the three years I spent there. But it was often seen in the autumn, following in the wake of migrating wild-fowl.

[In the National Collection there is a specimen from Tibet obtained by Mandelli's collectors in March 1876 and another from Nepal in the Hodgson collection.]

Falco tinnunculus tinnunculus.

2197, ♀, Me La (14,500 ft.), 8. 8 ; 2373, ♀, Phari (14,300 ft.), 2. 10 ; 3115, ♀, Gamri Chu (7500 ft.), 26. 10 ; 3317, ♀, Diwangiri (2000 ft.), 12. 11.

The Kestrel is common in summer in the less forested areas of Bhutan.

[A ♂ and ♀ in the Pemberton collection. Mr. Ludlow's specimen can be matched with skins of the Common Kestrels from Europe, except no. 2317, which is very faded, and might belong to *interstinctus*.]

Falco tinnunculus interstinctus.

1951, ♀, Wangdi Potrang (5500 ft.), 1. 7.

Haliaëtus leucoryphus.

Pallas's Fishing Eagle was occasionally seen in the autumn in the Manas Valley between Trashigong and Trashiyangsi. A pair seen close to their nest at the top of a large fir tree at Trashiyangsi in September.

Milvus migrans lineatus.

Common both in Bhutan and Tibet.

On 5 September, 1933, we were fortunate enough to witness these birds migrating from Tibet down the Kuru Chu Gorge to Bhutan. We were standing on the top of a ridge looking down into the Kuru Chu Valley near Singhi Dzong (two stages north of Lhakhang Dzong) when we saw a continuous stream of these Kites coming out of the north and heading due south down the valley. We stood and watched them for the space of half an hour. The birds were not in dense formation, but in a long drawn-out line. Three or four birds would be together, followed at intervals of a hundred yards or so by three or four other birds. On they passed down the valley in steady purposeful flight, never pausing to circle or wheel as is their custom. Several hundred birds must have passed us in this way, and when we turned aside to continue our march the stream still continued.

Accipiter nisus melanochistos.

1772, ♀, Lingmothang (Chumbi Valley) (11,500 ft.), 16. 5.

Uncommon. The specimen obtained had a fully formed egg (blue, without blotches) in her oviduct.

Sphenocercus sphenurus sphenurus.

2124, ♂, Trashiyangsi (6000 ft.), 30. 7 ; 3243, ♂, Chungkar (6000 ft.), 7. 11.

Fairly plentiful in east Bhutan. Unfortunately we did not meet with any other species.

[A ♂ and ♀ in the Pemberton collection.]

***Columbia livia* subsp.**

1918, ♀, Ha (9000 ft.), 13. 6.

Plentiful in the Ha Valley and noted in the neighbourhood of the dzongs in various parts of Bhutan. The specimen obtained is intermediate between *neglecta* and *intermedia*.

Columba rupestris turkestanica.

Only seen in Tibet north of the main range, where it is extremely common. At Tsona it was so tame that it actually entered our tents in search of food.

Columba leuconota gradaria.

2167, ♂, Me La (15,000 ft.), 4. 8 ; 2198, ♂, Me La (15,000 ft.), 8. 8 ; 2269, 2270, ♀♀, Kang La (15,000 ft.), 19. 8 ; 2524, ♂, Mago (12,500 ft.), 24. 7 ; 2610, ♀, Me La (15,000 ft.), 24. 8 ; 3113, 3114, ♂♂, Sakden (9000 ft.), 26. 10.

Common locally both north and south of the main range, but not extending very far north into Tibet, and never observed in the real Plateau country, which *C. r. turkestanica* inhabits. Mixed flocks of this and the preceding species were feeding in the fields at Lhakhang Dzong in September.

[The only difference in colour I can see between the Bhutan specimens and birds from the Western Himalayas is that there is a greater amount of grey on the wing-coverts. Birds from Szechwan are, however, notably lighter than Himalayan. There is also a difference in size.

5 ♂♂, Kansu, wing 246–263 mm. ; 3 ♀♀, Adung Valley, N.E. Burma, wing 244–245.

5 ♂♂, Bhutan, wing 240–247 mm. ; 4 ♀♀, wing 233–240.

3 ♂♂, Sikkim, wing 239–243 mm. ; 2 ♀♀, wing 233–241.

6 ♂♂, Gilgit–Kumaon, wing 231–236 mm. ; 2 ♀♀, wing 238–239.

A ♂ and ♀ from the Kaghan Valley, Hazara, are large (242, 241 mm.), and so is a male from Kashmir (241 mm.).]

Dendrotreron hodgsoni.

1881, ♀, Damthang (10,000 ft.), 5. 6 ; 1935, ♂, Ha (9000 ft.), 20. 6 ; 2321, ♂, Lhakhang Dzong (11,000 ft.), 1. 9 ; 2499, ♀, Sakden (10,000 ft.), 8. 7.

Quite common in Bhutan from 8000 feet upwards, both in forested and cultivated areas. Obtained near Lhakhang Dzong north of the main range, and seen at Mug a day's march to the north of Lhakhang Dzong.

[A ♂ and two unsexed birds in the Pemberton collection. We have four specimens of this species, obtained in the Chumbi Valley in July.]

Streptopelia orientalis orientalis.

1809, ♀, Sharithang (11,000 ft.), 25. 5 ; 1882, ♂, Damthang (10,000 ft.), 5. 6 ; 1921, ♂, Ha (9500 ft.), 16. 6 ; 2710, ♂, Tobrang (8000 ft.), 4. 9.

Plentiful in open country in Bhutan from 7000 feet upwards, and extending well into Tibet wherever there are trees and thickets.

[Two ♂♂ in the Pemberton collection from probably near Diwangiri.]

Streptopelia chinensis suratensis.

2029, ♀, Kuru Chu Valley (5000 ft.), 20. 7 ; 2428, ♀, Gamri Chu (3250 ft.), 30. 6.

Common up to 6000 feet in Bhutan, above which it is replaced by the preceding species.

[Two ♀♀ in the Pemberton collection, serial no. 61, and therefore obtained not far from Diwangiri.]

Oenopelia tranquebarica humilis.

2540, ♂, Mago (14,500 ft.), 28. 7.

What this bird of the Plains was doing in barren, inhospitable, treeless country in Tibet I cannot imagine. Yet it was fat and its organs well developed. It is recorded from the Central Gobi in September (Ibis, 1932, p. 587).

Macropygia unchall tusalia.

2951, 2952, ♀ & juv., Sana (7000 ft.), 2. 10 ; 2968, ♀, Sana (8000 ft.), 4. 10.

Seldom seen. Very tame and very methodical in all its movements, yet swift on the wing.

[A single specimen in the Pemberton collection, and it may be the "sombre-coloured dove" mentioned by Griffith as shot by Capt. Pemberton near "Teelong" on 10 May.]

Gallus bankiva murghi.

3286, ♀, Satsalor (3000 ft.), 10. 11 ; 3314, ♂, Diwangiri (2000 ft.), 12. 11.

Common in the evergreen zone.

Gennæus melanotus.

1953, ♀, Wangdi Potrang (6000 ft.), 1. 7.

In summer this Pheasant ranges as high as 9000 feet, at

which altitude it was seen at Ha, and on the Dokyong La near Paro.

Where this species (if indeed it is a good species) meets *horsfieldii* is uncertain. A bird obtained by Shebbeare near Goalpara on 22. 3. 09 (*vide* Journ. Bomb. Nat. Hist. Soc. xxv. p. 505) is nearer *horsfieldii* than *melanotus*, though showing intermediate characters. Birds from Buxa, according to Inglis, are *melanotus*. Personally I do not regard *melanotus* and *horsfieldii* as distinct species. When further material is available I think it very probable that the valley of the Mo Chu or Sankosh will be found to be an intermediate area between this bird and the next.

[There is a single female in the Pemberton collection which doubtless came from near Buxa, where Griffith mentions Black Pheasants were seen. The males of this and the following species are readily distinguished, but the females are very similar. In *melanotus* the upper parts are darker and the pale edges of the feathers of the underside broader and more pronounced. Mr. Ludlow suggests that this Kalij is a race of *lathamii* (*horsfieldii*), basing his argument on the fact that a male obtained near Goalpara was intermediate. It must, however, be remembered that Pheasants are notorious for hybridizing, and the Goalpara bird may be a hybrid and not a racial intermediate. More evidence is required before this point can be settled.]

Gennæus lathamii lathamii.

2439, ♀, Gamri Chu (3250 ft.), 1. 7 ; 2666, ♀, Tobrang (8000 ft.), 31. 8 ; 2724, ♂, Tobrang (8000 ft.), 5. 9 ; 2959, ♂, Sana (8500 ft.), 3. 10 ; 3236, ♂, Chungkar (6000 ft.), 7. 11 ; 3256, ♂, Chungkar (6000 ft.), 8. 11.

In 1934 we found this Kalij abundant in east Bhutan up to at least 8500 feet. The Bhutanese name is "Lekoo."

[The type-locality of *horsfieldii* has been fixed by Baker as Assam, but if he had examined the literature he would have found that the specimen which Gray named was collected by Pemberton and came from Bhutan. Gray described *Euplocomus horsfieldii* in the 'Genera of Birds' in 1848, and the bird he figured was one of the two males received, along

with a female, from the East India Company's Museum in 1846. All these three birds are still in the Museum, but the female is *G. melanotus*. Griffiths mentions "black pheasants" at Diwangiri near "Khegumpa" and Trashiyangsi.

I am afraid, however, that the correct name for this Pheasant must be *Gennæus lathamii*. *Phasianus lathamii* Gray (Griffith, ed. Cuvier, vol. iii. p. 26, 1829), is based on Latham's description of a drawing from Sylhet in the possession of Sir John Anstruther, a former Chief Justice of Bengal. The only exception which could be taken to this description is that the tail is given as "longish, compressed; outer feathers white fringed at the tips." By the "outer feathers" it appears that the upper tail-coverts on the side were meant. Gray based the name *Gallophasis horsfieldii* (Gen. Bds. iii. p. 498, 1845) on his *Phasianus lathamii* with a question mark.]

Lopophorus impejanus.

2092, juv., Donga La (12,000 ft.), 27. 7; 2485, ♂, Sakden (12,500 ft.), 7. 7.

The Monal is common throughout Bhutan between 12,000 and 15,000 feet in summer; *L. sclateri* was not met with even in the extreme eastern portion of the country.

Tragopan satyra.

1915, ♂, Ha (11,000 ft.), 13. 6; 1936, ♂, Ha (11,000 ft.), 20. 6; 2725, juv., Tobrang (9500 ft.), 5. 9; 2732, juv., Tobrang (9500 ft.), 8. 9; 2804, ♂, Trashiyangsi Valley (11,000 ft.), 15. 9; 3065, ♂, Sakden (10,000 ft.), 19. 10; 3078, ♀, Sakden (9000 ft.), 20. 10.

So far as I am aware this is the only species of Tragopan occurring in Bhutan. We expected to find *Tragopan blythi molesworthi* on the eastern frontier, and made every effort to secure it, but all the birds we handled (and they were many) were typical *satyra*. At the same time *satyra* and *blythi* are good species, and there is no reason why they should not overlap. It is possible, therefore, that *molesworthi* may be found one day within Bhutanese territory in the extreme east.

T. s. molesworthi is known only from a single skin, a ♂, and I may as well correct here a mistake in the 'Fauna'

with regard to the type-locality of this specimen. On p. 349 of vol. v. Baker states that Capt. Molesworth obtained the type "on the Tse La, Tawang, Tibet, in the mountains due north of Dibrugarh in Assam." Now this is incorrect. In the first place the Tse La and Tawang are not due north of Dibrugarh, but 3° of longitude to the west of it. Secondly, I have been in correspondence with Capt., now Brigadier A. L. M. Molesworth, and he informs me that he shot this Tragopan on the Dangan La (*vide* map) in the Sherchokpa country, 30 miles north of Odalguri in Assam, at 8000 feet, on 31 March, 1914. It was the only specimen of the bird he saw, and it was sitting in a clump of bamboos making a noise like a leopard. A label attached to the skin bears the inscription "Dangan La, Tibet, 8000'," in Molesworth's own handwriting, and when Baker originally described the bird in Bull. B. O. C. vol. xxxv. p. 18, he gave the locality correctly as above. But later on, when writing of this bird in the Journ. Bomb. Nat. Hist. Soc. (vol. xxvi. p. 301), the type-locality was changed, for some obscure reason, to the Tsa La, Tawang, Tibet.

Ithaginis cruentus cruentus.

1773-1775, ♀♂♂, Lingmothang, Chumbi Valley (12,000 ft.), 16. 5; 1793, ♂, Sharithang (11,500 ft.), 23. 5; 1847, ♂, Sharithang (11,500 ft.), 30. 5; 1925, 1926, chicks, Ga (11,000 ft. (11,000 ft.), 17. 6.

This Blood-Pheasant is common in the Chumbi Valley in Tibet, and in the Ha Valley in western Bhutan. A shell-less egg was extricated from no. 1773. On 17 June, 1933, on the Cheli La between Ha and Paro, Sherriff and I stumbled across a pair of these Pheasants with five chicks in fir and rhododendron forest at 11,000 feet. The parent birds were so utterly fearless that we sat down by a fallen tree and watched them for the space of half an hour. The entertainment they afforded us will live long in our memories. No domestic birds could have been bolder in the presence of man. There was no attempt to take wing or even flutter, and the female mothered her chicks like a proud hen within arm's reach, whilst the male was equally unconcerned. We sighed for our cameras. For some unknown reason neither of us

had brought one out, and here before us, in bright sunshine, was a subject for our cine-camera that was unique. Imbeciles that we were !

East of the Cheli La we were too low for Blood-Pheasants, and we did not see them again until we reached the Donga La, where we encountered *I. c. tibetanus*. This was unfortunate, as a series of skins taken on the various ranges from west to east would almost certainly show *c. cruentus* merging into *c. tibetanus*. Already in the Chumbi Valley we find crimson feathers mixed with the black on the forehead, whilst certain individuals have crimson-splashed breasts which are very nearly as intense as those of *c. tibetanus*. If I were asked to hazard a guess as to the contact zone between these two races I should cite the Black Mountain Range, which separates the waters of the Manas from those of the Sankosh.

Baker says the flesh of the Blood-Pheasant is excellent for the table. Personally I know of no Pheasant whose flesh is so unappetising.

***Ithaginis cruentus tibetanus*.**

2093-2097, ♀♀♂♂ & juv., Donga La (12,500 ft.), 27. 7 ; 2178-2181, juv. & ♂♀♂, Shingbe (12,750 ft.), 5. 8 ; 2252, ♀, Pang La (14,000 ft.), 14. 8 ; 2276, 2277, juv. & ♂, Narim Thang (14,000 ft.), 21. 8 ; 2292-2294, ♂, juv., ♀, Narim Thang (14,500 ft.), 25. 8 ; 2546, 2547, ♀♂, Mago (13,500 ft.), 29. 7 ; 2806, ♂, Dib La (11,000 ft.), 15. 9.

This race is extremely common in eastern Bhutan in summer from 11,000 to 14,500 feet. We also found it in Tibet in the Hamo Chu Valley, near Lhaxhang Dzong. It moves vertically with the seasons. In the height of summer we constantly met with it in rhododendron scrub well above the conifer belt. In the autumn we found it as low as 9000 feet near Sakden.

This form was originally described by Baker from a specimen sent to the Bombay Natural History Society by Molesworth in 1914. Although Molesworth shot several of these Pheasants in Mönyul, the actual type-specimen, a ♂, was obtained by Captains Kennedy and Nevill on the Se La (not Tela, as in the ' Fauna ') Range between Dirang Dzong and Tawang at

12,500 feet. This skin was given to Molesworth, who sent it to Bombay. There is no original label on the specimen.

The female, which was unknown until we procured it on the Donga La, differs from the typical race only in being darker.

[This is a very even series, and there is only a little variation in the amount of green on the wing-coverts. The distinguishing characters between the males of this race and *I. c. kuseri* are well shown in 'The Ibis,' 1915, pl. iii. There is little difference in the shade and amount of crimson on the breast.

The female of *I. c. tibetanus* differs very little from *I. c. kuseri*—a shade more rufous and the shaft-streaks on the underside more pronounced. No. 2546 is a female, but shows a number of scarlet feathers coming in on the throat and the sides of the head, while two *kuseri* from Yunnan and the Myitkyina district, Burma, have some of the feathers of the breast washed with faint crimson—almost the appearance of a stain. These birds cannot have been sexed wrongly, as the Blood-Pheasant moults straight from the plumage of the juvenile into that of the male, as shown in Mr. Ludlow's specimens.]

Coturnix coturnix coturnix.

1903, ♂, Damthang (10,000 ft.), 9. 6.

The Common Quail is plentiful in cultivated areas of the Ha, Paro, and Bumthang Valleys in summer between 7000 and 10,000 feet. The specimen obtained had greatly enlarged organs. A nest (c/7) was taken at Gyetsa, near Bumthang, on 10 July.

[There are two skins in the Pemberton collection, one from Assam which is *C. c. japonica*, and another from Bhutan intermediate between *C. c. coturnix* and *japonica*. The latter, doubtless, is the bird mentioned by Griffith in his journal as procured at "Boomdung" on 28 February.]

Arborophila torqueola torqueola.

2504, ♀, Sakden (10,000 ft.), 10. 7 ; 2723, ♂, Tobrang (9500 ft.), 5. 9 ; 2877, ♂, Dib La (9000 ft.), 23. 9 ; 2905, ♂, Trashiyangsi (8000 ft.), 26. 9 ; 3106, ♂, Sakden (9000 ft.), 24. 10 ; 3180, 3181, ♂♀, Yönpu La (8000 ft.), 3. 11.

This was the only Hill-Partridge of which we were able to obtain specimens. It was often seen, and still more often heard, at various places in east Bhutan between 8000 and 10,000 feet.

A covey of Hill-Partridges flushed at Diwangiri (2000 feet) were probably *rufogularis*, though they might have been *mandelli*.

Francolinus francolinus melanotus.

Seen on the Menoka Tea Estate.

Perdix hodgsoniæ hodgsoniæ.

2587, ♂, Tsona (14,500 ft.), 11. 8; 2598, ♀, Chukar, near Dongkar (13,500 ft.), 19. 8.

Although both the above specimens were obtained north of the main range, this Partridge also occurs to the south of it, as it was seen in the Goshu Chu Valley in the Mago district. The specimens obtained agree with Gyantse birds in colour.

Baker's key in the 'Fauna' is misleading. In a freshly killed bird the black of the cheeks does not meet below the throat, though in a skin in which the throat has not been filled out properly it may appear to do so.

[Four birds obtained by Mr. Ludlow in September 1932 on the Barkha-Gartok road, in Western Tibet, are intermediate between the present race and *P. h. caraganæ* Meinertzhagen. 6 ♂♂, 153-161 mm.; 4 ♀♀, 149-158.]

Tetraogallus tibetanus centralis.

2518, 2519, ♂ & juv., Tsona (15,500 ft.), 20. 7.

Snow-Cock were noted on the Me La, Kang La, and Karo La Passes, and also on the mountains surrounding the Pomo Tso, in 1933.

In 1934 they were observed on the passes around Tsona and also in the Mago district. The only adult bird brought back belongs to this race.

Lerwa lerwa.

2193-2196, ♂♂♀♂, Me La (15,000 ft.), 8. 8.

Common on the Me La and Kang La Passes. We shot a number of birds, and could have killed many more had

we been so inclined. Our experience of these birds agrees with that of Meinertzhagen's (Ibis, Oct. 1927, p. 626). With the exception of *Ithaginis* we thought them the silliest and tamest Game-birds we had ever shot; but they are good table birds. Our specimens are in abraded plumage, and consequently look very dark.

Amaurornis fuscus subsp.

Seen at Paro (7000 feet) in the rice-fields, where we were unable to shoot. This is only a sight record, but the birds were seen at such close quarters that the identification is probably correct.

Amaurornis bicolor.

3133, ♂, Gamri Chu (7500 ft.), 27. 10.

Shot in a small marsh surrounded by dense forest. We saw no other specimens.

[There are a number of records of Elwes's Crake from Sikkim, but the only one from Nepal is based on Hodgson's specimen presented to the Indian Museum after he had left Katmandu and gone to live at Darjeeling. It is, therefore, probable that it came from Sikkim, more especially as the species is not mentioned in the list of Nepal birds in Gray's 'Miscellany.']

Grus nigricollis.

Seen on the shores of the Yamdrok Tso and at Gyantse in 1933, and at Tsona in 1934. The Yamdrok Tso birds were so tame that we were able to film them.

Sterna hirundo tibetana.

Frequently seen on the lakes and marshes of the Tibetan Plateau.

Charadrius placidus.

3075, 3082, ♀♀, Sakden (9000 ft.), 21. 10.

Shot in the wide pebbly river-bed at Sakden. Evidently migrants.

[Has been obtained in Nepal (November), Sikkim (January and February), and the Bhutan Duars (January).]

Pluvialis dominicus fulvus.

2365, ♀, Hram Tso (14,800 ft.), 29. 9.

Common on autumn migration in Tibet. I have shot this bird on the Upper Sutlej in Western Tibet in late September.

[A ♂ in the Pemberton collection collected in January either at Diwangiri or over the frontier in Assam.]

Ibidorhyncha struthersii.

Often seen in the Ha and Paro Valleys in June. Also noted between Lhaxhang and Towa, and in the river-bed on the Tibetan side of the Me La.

[There are four examples in the Pemberton collection. Griffith in his journal notes that the Horseshoe-Curlew was seen at "Juguri" on 1 March, "the same as we shot at Daimara."]

Numenius phaeopus phaeopus.

2350, ♂, Gyantse (13,300 ft.), 24. 9.

A solitary bird. Several Curlew were seen on the shores of the Yamdrok Tso on 12 September.

***Tringa totanus* subsp.**

Redshanks were noted on the Yamdrok Tso in September 1933. They appeared to be breeding on the Tsona Marshes in July 1934.

Scolopax rusticola.

1905, ♂, Damthang (10,000 ft.), 10. 6.

The Woodcock breeds in Bhutan, and a nest with four eggs was found at Sharithang on 23 May. At Damthang they were very common, and flew over our camp in the evening with the greatest punctuality.

Capella nemoricola.

1727, ♂, Changu (12,500 ft.), 9. 5; 2562, ♀, Mago (14,000 ft.), 3. 8; 2754, ♀, Dib La (12,500 ft.), 10. 9.

No. 1727 was one of a pair. Deep snow filled the ravine-bed in which they were found. In the hills west of Mago in early August Sherriff saw many of these Snipe fighting like Woodcock of an evening, uttering a croaking "chur, chur" call. The first two specimens were obtained above tree-level; the third was flushed in long grass in marshy ground, and

flew into an adjoining fir forest. The altitude at which no. 2562 was obtained far exceeds anything hitherto recorded, and it should be noted that several other birds were seen in the immediate neighbourhood. *Capella g. gallinago* and *Capella stenura* were both shot in Gyantse.

[Mr. Ludlow, in a letter, remarks that he has long been puzzled at Wollaston's record of a Painted Snipe, *Rostratula capensis*, seen at 17,000 feet on Mount Everest (Ibis, 1922, p. 497), and suggests that it is just possible it was a Wood-Snipe and not a Painted Snipe, as the flight of the two birds is very similar.]

Phalacrocorax sp.

Either the Large Cormorant or the Shag was occasionally seen on the Manas River in October, but we obtained no specimens.

Anser indicus.

Abundant on the lakes on the Tibetan Plateau. Concerning other members of the family Anatidæ I have no remarks of any value to offer.

[**Dafila acuta acuta.**

A ♂ in the Pemberton collection which, according to Griffith's journal, was shot at Boomdung on 28 February.]

[Concluded.]

XXV.—*Birds of the Colony of Trinidad and Tobago.*—
Part VI.* (*concluded*). By Sir CHARLES BELCHER, M.B.O.U.,
and G. D. SMOOKER, M.B.O.U.

Family HIRUNDINIDÆ.

Progne subis dominicensis (Gmel.). Caribbean Martin.

Not uncommon along rocky parts of the coasts of Tobago, where it was observed by C.F.B. nesting in small colonies in clefts of low cliffs and in masonry walls where holes had been

* For Part I. see Ibis, 1934, pp. 572-595; for Part II. *ib.* 1935, pp. 279-297; for Part III. *ib.* 1936, pp. 1-35; for Part IV. *ib.* 1936, pp. 792-813; and for Part V. *ib.* 1937, pp. 225-249.