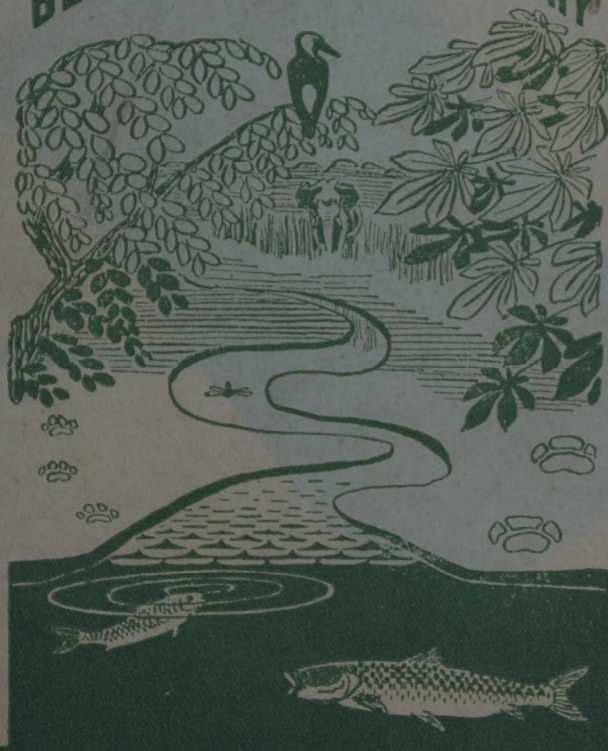


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THE JOURNAL OF THE  
BENGAL NATURAL HISTORY  
SOCIETY



VOL. XVIII - - - - No. 1.

*Issued July 1943.*

Edited by C. M. INGLIS, F.Z.S., B.E.M.B.O.U.

## BENGAL NATURAL HISTORY SOCIETY.

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The Society under the name Darjeeling Natural History Society was started about the end of 1923, the objects being to maintain the Museum in a proper condition; to promote the study of Natural History and to get together, as complete as possible, collections of Natural History specimens from a limited area, including "the Civil Districts of Jalpaiguri and Darjeeling and the State of Sikkim", as well as what could be procured from the neighbouring countries of Tibet, Bhutan and Nepal.

The Government and Municipal grants not being sufficient for our purpose, it was proposed to enrol members so as to increase our funds, and a Quarterly Journal has been started. The Journal is no longer confined to articles on the Natural History of the above mentioned area, but includes those from anywhere. It is hoped that everybody will join the Society and co-operate to make the Museum and Journal a success.

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THE  
JOURNAL  
OF THE  
BENGAL NATURAL HISTORY SOCIETY

EDITED BY

C. M. INGLIS, F.Z.S., B.E.M.B.O.U.

Vol. XVII.

*Consisting of four numbers containing two coloured  
plates, thirty one half-tone plates, seven  
diagrams, three illustrations  
in the text.*

**Dates of issue.**

|                          |     |         |       |
|--------------------------|-----|---------|-------|
| Number 1 (Pages 1 to 45) | ... | July    | 1942. |
| .. 2 (Pages 47 to 77)    | ... | October | 1942. |
| .. 3 (Pages 79 to 113)   | ... | January | 1943. |
| .. 4 (Pages 115 to 143)  | ... | April   | 1943. |

## CORRIGENDA.

Vol. XVII, No. 4.

| PAGE                      | LINE             |  |
|---------------------------|------------------|--|
| 115                       | 21 (from bottom) | read "7" instead of "6".   |
| 116                       | 12 (from top)    | read "covered" instead of<br>"several".                            |
| 119                       | 4 (from top)     | read "is" instead of "in".   |
| 133                       | 1 (from top)     | read " <i>dorsata</i> " instead of " <i>Dor-</i><br><i>sata</i> ". |
| 138                       | 4 (from bottom)  | read "possibly" instead of "pos-<br>sible".                        |
| On opposite page to above |                  | read "H. W. Cox" instead of<br>"H. E. Tyndale".                    |
| 142                       | 4 (from bottom)  | read "having" instead of "have".                                   |
| 143                       | 8 (from top)     | insert "a mile" between " $\frac{1}{2}$ " and<br>"from".           |

1891 July ... (21 of 1891) 1 ..  
1891 October ... (27 of 1891) 2 ..  
1891 January ... (21 of 1891) 3 ..  
1891 April ... (21 of 1891) 4 ..

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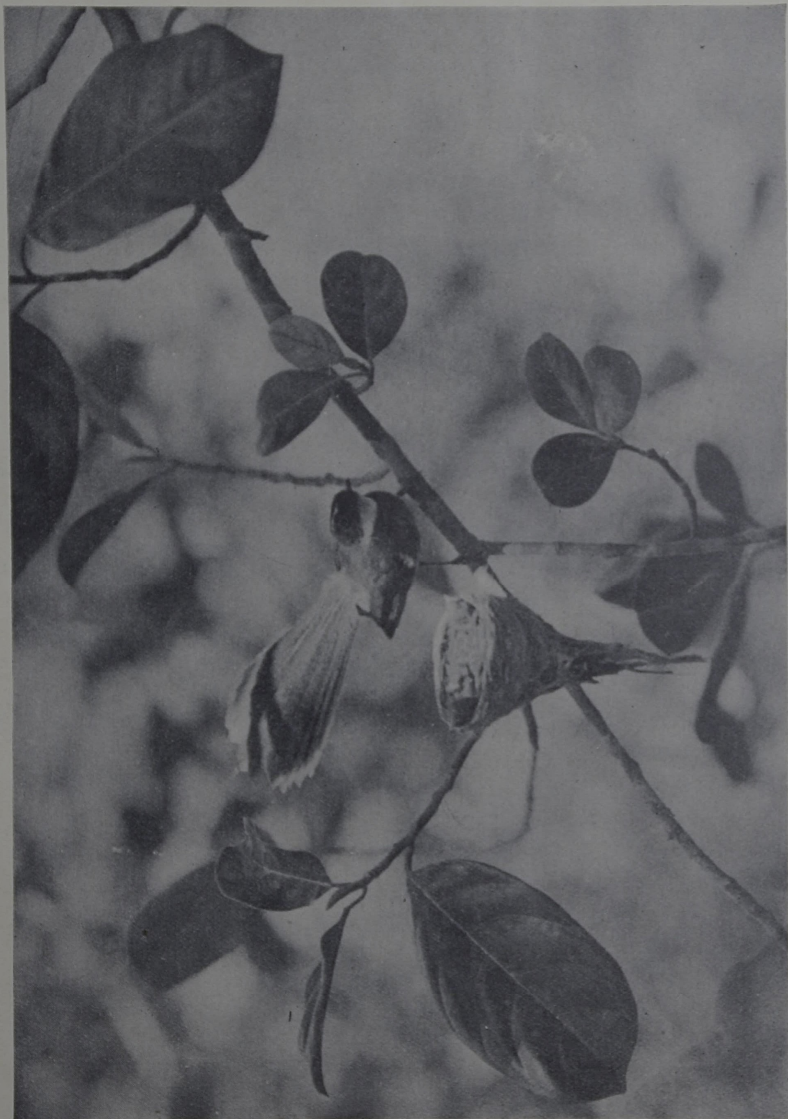
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The Indian White-throated Fantail Flycatcher at the nest.

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The Indian White-throated Fantail Flycatcher in a typical dancing pose.

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**JOURNAL**  
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—  
Vol. XVIII.—No. 1.  
—

The Indian White-throated Fantail Flycatcher.

*(Leucocirca albicollis albicollis.)*

I have been told that the Fantail often nests in close company with the Paradise Flycatcher. I cannot vouch for this, as I have only seen one nest of the former, but certainly that one was within a stone's throw of a Paradise Flycatcher's nest. I find that I wrongly mentioned it in Vol. XVII No. 1 of this Journal (page 4) as the nest of the White-browed, but it belonged in fact to the closely related White-throated Fantail.

On first catching sight of the nest in question from below, I failed to realise for a few seconds that it was a bird's nest at all. It looked like a minute ice-cream cornet made of some parchment-like substance, and I thought for a moment of the various wasps that go in for that kind of building. It was fastened to an inner spray of a jack-fruit tree, 7 or 8 feet from the ground, and contained three young. (8th June 1941). The parchment-like appearance was due to the grass structure being woven round with a coating of cobweb. The parent birds were very much in evidence, dancing around uttering their harsh monosyllabic alarm note. Photographing them at the nest was a comparatively simple, though not very comfortable, job. In this country the percentage of nests which get destroyed before you can pay them a second visit seems so high that it is advisable to try to get photographs at once, if it is possible to make the necessary preparations on the spot. I wedged myself into a convenient fork of the tree and hung an old bit of sacking in front of me, and found

that the birds at once resumed feeding the young within about 4 feet of the camera.

The sexes in this species seem almost indistinguishable, both birds being dark sooty brown, blackish about the head, with a thin white eyebrow and a white throat which broadens out at the base. The legs and beak are black, but the interior of the mouth is whitish. The "fan" tail is shaped rather like an elongated scollop shell, decorated with a white edge which gets progressively wider towards the sides, and when caught by the sun it seems to have a sheen as if the surface were delicately engine-turned. The fan is spread and flirited incessantly from side to side, and my pair could not resist the temptation to indulge in a little posturing and dancing even when approaching the nest with food. They behaved rather like butterflies which keep opening and shutting their wings and turning from side to side wherever they alight. When one perched nearby, the other would skip over it playfully and alight the other side. Their movements were so jerky that it was difficult to seize the right moment to take photographs.

At the nest the bird would often stand for a while shielding the young from the heat whenever a patch of sunlight fell across them, still flicking its tail over first to one side and then the other. Plate I gives a good idea of the size and structure of the nest, with the bird perched daintily beside it, not easily distinguishable, if it would only keep still, from the jack fruit leaves around it. In Plate II the bird which I thought to be the cock is in a typical dancing pose with the fan fully spread. I noticed that he had a favourite twig to which he always had to return, now and then, to show off, so I focussed on this and waited for him to oblige. This is often the best way to get photos of birds that are constantly on the move. If you try to follow them with the camera they are usually off again each time you are about to fire the shutter.

On one occasion I saw the bird having great difficulty with a rather unmanageable winged insect. It seemed to be trying to hold it down under its foot to kill it or perhaps to

detach the wings, but it kept escaping and having to be caught again in mid-air. I noticed that this flycatcher always inspected the nest and removed any droppings after feeding the young. I have watched Paradise flycatchers feeding young for long periods, but never saw them bother to do this.

Douglas Dewar describes the song as "striking and cheery", and again as "tinkling". I was disappointed in what I noted down as "no real song, but about four non-descript notes in succession" but perhaps it is not at its best when the young are requiring all the bird's attention.

So far as my experience goes, this flycatcher is not common around Calcutta, but I may have been unlucky. Its dark colouring is inconspicuous in the shady undergrowth of mango groves, but if it is present, its dancing movements catch the eye.

W. A. S. LEWIS, O.B.E., I.C.S.

What Mr. Lewis writes about the bird protecting the young from the sun, when necessary, is most interesting as is about the bird removing the droppings from the nest after feeding the young, in contrast to the Paradise Flycatchers. This pretty little Flycatcher is a common sight up to some 7000 feet or more, in our hills. We are greatly indebted to Mr. Lewis for his lovely photographs and interesting note.

*Editor.*

---

## Notes on a Tame Indian Roller.

*(Coracias b. benghalensis.)*

By

F. H. V. SCRIMGEOUR.

Although the brilliantly plumaged Roller or Blue Jay is one of the best known and most conspicuous birds in India it is not often that one comes across cases of their being kept as pets. This is, of course, because they tend to be sluggish and dull if kept in cages, seldom moving off their perches while it is only when they spread their wings that the full beauty of their gorgeous Oxford and Cambridge blues meets the eye. The following notes on a specimen reared from the nest by hand and allowed the fullest liberty may therefore be of interest.

One day in the middle of May the mali announced that there was a nestful of "Nilkants" in a hole in a "Gul Mohur" tree in the compound. With the aid of a ladder,—for the hole was at a height of 10 ft.—the nest was inspected and found to contain three half-fledged youngsters. One of these was much more colourful than the others and this factor prompted a desire to take him as a pet. For the first two or three days, "George" as he was called was shy and had to have his beak prised open at feeding times but thereafter he soon learned to "gape" readily at the sight of his human foster parents. Rollers are said to be stupid birds and George was certainly slow at learning to take food by himself. For two or three weeks after he learnt to fly every bit of food had to be deposited in his "gape" to the accompaniment of a vigorous mewling. His diet consisted of live ant's eggs and live grasshoppers—the former being obtained fresh from Sealdah Bazar daily and the latter through the spare time efforts of the sweeper who twice daily combed grassy areas in the compound.

From his faltering efforts at flying he used to execute a kind of victory celebration whenever he alighted anywhere stretching out his beak towards the heavens and crowing in a manner reminiscent of a barnyard fowl in the early

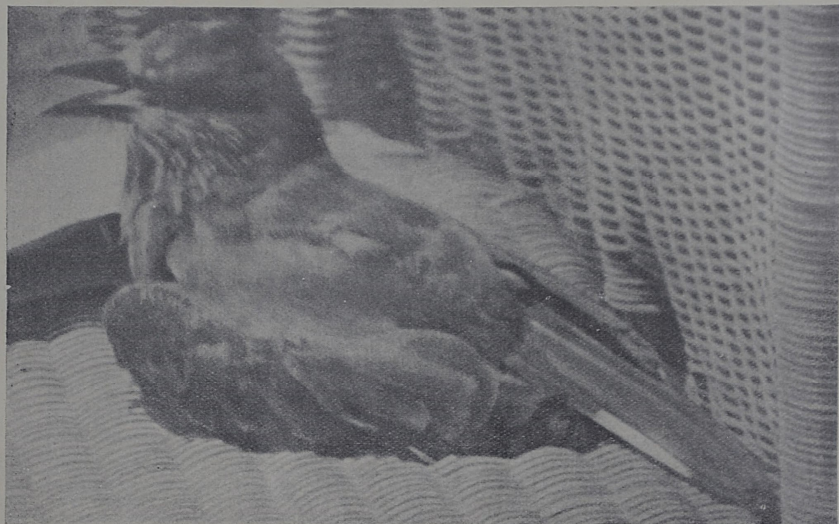


A tame Indian Roller.

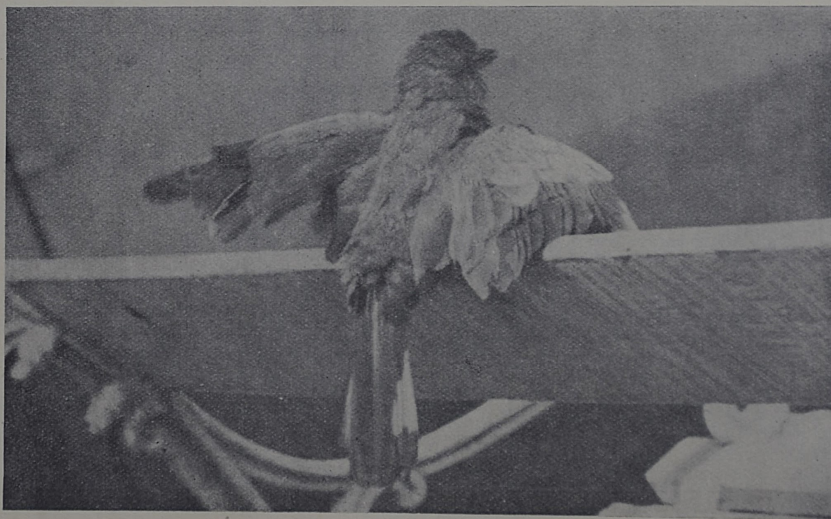
Copyright  
F. H. V. Scrimgeour.



A tame Indian Roller.



A tame Indian Roller.



A tame Indian Roller.

*Copyright*  
F. H. V. Scrimgeour.

morning. In subsequent months however, this habit was gradually discontinued.

For six weeks after learning to fly George was easily coaxed in doors at night and placed in a cage until day break. There comes a time however, when maturing youngsters like to stay out late, if not spend the night on the tiles, and it became evident that this last remnant of restriction was becoming irksome. From then on a sheltered spot under the friendly shelter of the porch became the invariable roosting place but not until dusk had deepened into night did he repair there.

His range has from the start been restricted to a small corner of the compound in the immediate vicinity of the bungalow and he has not been known to stay outside it except once, when he chased a Sparrow Hawk across the Hooghly, about half a mile wide at this point. Needless to say he managed to return safely. Not only is his range limited but his choice of perches is restricted to a few favourite ones where he sits for hours, occasionally plunging on to the lawn after a grasshopper. He is also adept at chasing and catching them on the wing. A large exposed perch is favoured, so he can, as it were, lie down on it and when the sun shines spread his wings to catch the warmth.

An unusual feature about this bird is his absolute refusal to have anything to do with water either for drinking or washing. When at the "gape" stage water was dripped in to his beak it was scattered far and wide by vigorous shakings of the head. It would be interesting to know if this is a characteristic of the Roller and if the moisture in the insects eaten is sufficient to meet their needs.

At crack of dawn each morning, with never an exception he flies into my bedroom from any of the three sides of the house and mews loudly and impatiently for his rations. If there is any delay he flies on to my bed crying for me to wake and open the grasshopper bag or ant's eggs tin. When he has had enough off he goes through the window to one of his favorite perches.

On my return from work in the evening George is usually already sitting on my chair where tea is ready on the lawn overlooking the river, or if not he flies down as I get out of the car. As usual the grasshopper bag is produced and George impatiently awaits its being opened so that he can bury his head and shoulders inside.

In his early days his flight and tail feathers frequently got broken and on two occasions it was necessary to pull out a full set of broken stumps. This rather painful process was patiently borne as if he knew it was all for the best—the reason being of course, that in many birds at any rate these important feathers are not dropped until the second moult at the age of perhaps eighteen months.

Altogether he has been a charming pet, extremely tame and familiar with those whom he knows but tending to be shy with strangers and cameras.

Shortly after the above notes were written my calling up papers came and not long after I had left, George, though well looked after, disappeared and has, I regret to say, not been seen since.

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Records of some rare or uncommon Geese, Ducks and  
other Water Birds in North Bihar.

By

C. M. INGLIS, F.Z.S., B.E.M.B.O.U.

(Continued from Page 58 Vol. XVII).

**The Pochard or Dun-bird.**

*Nyroca ferina ferina* (Linn.)

Local names *Lalsir* (also used for the Red-crested  
Pochard) and *Cheum*.

I found this duck very rare in the Madhubani Sub-  
division of the Darbhanga District but they were not so  
rare elsewhere, though by no means common. In all, I got  
some eight or nine pairs. I do not think they arrive before  
the end of October and they leave in March; but, on one  
occasion, Mr. G. Dalgliesh shot a young male on the 9th July.

I have the following specimens from the Darbhanga  
District :

|   |               |     |     |     |      |
|---|---------------|-----|-----|-----|------|
| ♀ | Minti chauar  | ... | 10. | 11. | 1900 |
| ♂ | Maiser chauar | ... | 8.  | 1.  | 1903 |
| ♀ | Maiser chauar | ... | 31. | 10. | 1906 |
| ♂ | Maiser chauar | ... | 30. | 11. | 1907 |

Since writing the above, Mr. Ferrers Munns wrote to  
me on the 10th August 1942 as follows :—

“Plenty of Dunbirds everywhere especially on the Tar  
Bareilla Hunsingpur shoot this year.”

I wrote to him that according to the bags of duck  
made at his shoots these birds did not seem to be plentiful.  
In reply he wrote on the 7th September :—

“Dunbirds were not, of course, as plentiful as other  
duck, but we saw quite a lot; they flew high and weren't  
shot! Also on my *chauar*, rice *chauar*, they don't come  
much, they prefer open and deeper water as is found at  
Matahari on Kemp's *chauar* and Tar Bareilla.”

**The Eastern White-eye or Baer's Pochard.***Nyroca rufa baeri.* (Radda)The local vernacular name is *Bara Dubab*.

This is another very rare winter visitor, though probably some, especially females, may get overlooked on account of their resemblance to the female of the Common White-eye. It may be as well to note that the duck Eastern White-eye has the neck mixed with blackish on the sides. The drake with its black head and neck, glossed with green, is easily distinguished; though sometimes the gloss on the head and neck is not as great as shown in the coloured plate of Stuart Baker's magnificent work on "Ducks and Their Allies". The following are my records:—

♂ Near Baghownie in the  
Darbhanga District ... 22. 11. 1929

This specimen was with some Common White-eye, and my collector recognised it at sight.

♀ Morari chauar in the  
same District ... 25. 3. 1928

♀ Near Dumra village in  
the Rusera subdivision  
of the Darbhanga Dis-  
trict ... 24. 12. 1941

♂ Bena chauar in the  
Darbhanga District ... 11. 1. 1943

♂ Do. Do. ... 17. 1. 1943

♀ Kabai chauar in the  
Darbhanga District ... 18. 5. 1943

Without my having ever told him the difference between the ducks of this species and the Common White-eye, my collector recognised this specimen from a number of ordinary White-eye by its larger size and bill, even before shooting it.

Mr. "Rabbits" Munns shot a fine drake presumably in the Champaran District of North Bihar at the end of February 1940.

**The Golden-eye.***Glaucionette clangula clangula.* (Linn.)

The only record of this very rare winter visitor is a male, in eclipse plumage, shot on the Rahria Jheel by Jumbo Macdonnell, 20 miles from Bettiah, in the Champarun District, on the 10th January 1932. Stuart Baker has overlooked this record.

This rare duck has cropped up in various places in different parts of India. In some years they appear to be fairly common in Upper Assam.

**The Eastern Gossander.***Mergus merganser orientalis.* (Gould)

I have only half a dozen records of this handsome duck from the Darbhanga District and none from anywhere else in North Bihar. The following specimens were secured :—

|   |                         |     |      |      |  |
|---|-------------------------|-----|------|------|--|
| ♂ | Suwaisingpur chauar     |     |      |      |  |
|   | shot by the late Mr.    |     |      |      |  |
|   | Edgell ... ..           | 12. | 1907 |      |  |
| ♂ | Maiser chauar in the    |     |      |      |  |
|   | Darbhangha District ... | 6.  | 12.  | 1907 |  |
| ♂ | Kareh River, near Bag-  |     |      |      |  |
|   | hownie ... ..           | 5.  | 12.  | 1915 |  |
| ♀ | Do. Do. ... ..          | 15. | 12.  | 1915 |  |

Two others were got at the same time but I have omitted to note the sexes. They were more numerous that year.

|   |                      |    |     |      |  |
|---|----------------------|----|-----|------|--|
| ♀ | Lilkori chauar near  |    |     |      |  |
|   | Barauni Junction,    |    |     |      |  |
|   | Monghyr District ... | 4. | 12. | 1940 |  |

(Snared by mirshikar. I didn't keep it as he wanted a fabulous price.)

These birds are seldom found any great distance from the Hills, so that North Bihar is seldom visited by them.

## HYBRID DUCK.

Mr. Ferrers Munns records two Hybrids which appeared to be  $\frac{1}{2}$  Mallard and  $\frac{1}{2}$  Gadwall and  $\frac{1}{2}$  Wigeon and  $\frac{1}{2}$  Pintail. Interesting Hybrids amongst ducks, are recorded from time to time; a most interesting cross being that of a Red-crested Pochard drake with a Wigeon duck.

*(To be continued).*

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 Birds of Darjeeling

Notes - 1942

By

V. S. EDWARDS.

The first three months of the year were exceedingly mild for the time of year with an unusual number of days of brilliant sunshine and clear skies. This might possibly account for the appearance in April of an Assam Black Naped Woodpecker ♀ (1344). The Fauna of B. I. mentions Sikkim as part of the distribution of this species and that in Assam they are found up to 5000 ft. and exceptionally up to 7000 ft. It was again seen about a week later within a hundred yards of the spot where it had first been seen. There seems to be no record of this bird having previously been seen in the neighbourhood of Darjeeling.

Early one May morning while walking along one of the paths on the northern side of Birch Hill I heard a loud chittering of what seemed to be a considerable number of very angry birds. On coming opposite the spot, I saw inside the wood about ten to fifteen yards away a large bird which I could not identify being mobbed by a flock of ten or more grey-headed Flycatchers. The bird did not seem very worried by these attacks but occasionally when they became unusually fierce, would move away a few feet to another tree. Its movements were slow and clumsy, in fact it seemed to dislike moving at all. Later on in the day on visiting the Museum and Mr. Inglis and after inspecting several specimens it was possible to identify the

bird as The Large Himalayan Cuckoo-Shrike (759). Stuart Baker says that this race is found almost entirely in the broken foot-hills and lower mountains up to some 4000 ft., probably wandering up to about 6000 ft. on rare occasions. This seems to have been one of the rare occasions.

The next occurrence of something out of the ordinary was one morning a month later, but further evidence is required before this can be taken as definite. While seated on the bench half way down Snowy View Road watching with glasses a kite sailing about in the valley below, suddenly across the glasses in the distance flashed in the sunlight what seemed to be unmistakably the colours of a Roller in flight; the bird had unfortunately passed behind a spur of the hills below before I had time to get my glasses onto it again. On reference to Mr. Inglis he seemed to think it unlikely that it could have been a Roller. Some weeks later, however, while wandering through the Museum I noticed that the specimen there of the Burmese Roller (1519) was taken in the Kalimpong district in 1924. Kalimpong as the Roller flies would not be more than fifteen miles from where the possible Roller was seen. It would be of interest to know whether anybody else has seen this bird in the neighbourhood. The bird seen by me was flying at about the same level as Lebong.

I have on several occasions been asked for the name of the bird which during the months of May, June and July is, next to the Black Headed Sibia, the most noticeable songster in the station. This year it was to be heard on the Mall, in large numbers on the Auckland Road, in nearly every garden and on every road on the side of the hill between the Auckland Road and Jalapahar Road, on part of the Calcutta Road and on the part of Birch Hill round Snowy View Road, in fact wherever there were bushes or bracken or small trees. Mr. Inglis on being referred to said that he was very familiar with the song but that in all the years he had been in Darjeeling he had never been able to see the bird. This is easily understandable, as the bird is exceedingly shy and of skulking habits; I spent over half an hour one morning under a small tree not more than

fifteen feet high with the bird not ten feet from me without being able to obtain a clear view of it. The result of very rare occasional glimpses during many weeks was only to be able to say that it was probably a Bush Warbler and probably one of two, The Strong Footed (910) or Blandford's (912). Then one morning towards the end of July while climbing up Snowy View Road at a spot where I had frequently heard but never seen it, the bird was visible for a few moments on top of a bush, singing, and from the short glimpse then obtained I should say that it is The Strong Footed and not Blandford's. By the middle of August the song becomes rare and by the end of the month no longer to be heard. I cannot say definitely whether the Bush Warbler remains here during the winter but am inclined to think that it does so, because one was heard singing part of its usual song on two occasions in the same spot on the Mackintosh Road in December and February and the song became general again in many places in the Station on the same day during the second week of March.

Mention may be made of an Eastern Rufous-bellied Woodpecker (1358) being seen on top of a high tree about half way up Birch Hill late in September, as it seems to be an irregular visitor. The Fauna of B. I. gives it as common between 2500 and 6000 ft. but in Sikhim up to 12000 ft. or more but that Masson found it below Darjeeling in May and June at about 7000 ft.

The last item of interest during 1942 was in connection with a bird very common in the station, The Himalayan Whistling Thrush, (614) but of a nature which should be recorded.

One morning in November in the garden of 1 Auckland Villa a servant passing the small greenhouse in which there is a shallow cement pool containing goldfish saw a bird and entering, quickly shut the door. He found that the bird had pulled out three goldfish and killed them but was apparently making no attempt to eat them. He caught the bird and put it in the aviary with the other birds belonging to Mr. Wrangham Hardy. Later in the morning when I

was told about this and shown the bird, it was easy to identify it as a Whistling Thrush. About three days later when I was passing the greenhouse out flew another Whistling Thrush into a neighbouring tree and it remained about the aviary for the rest of the day. Presumably this was the mate of the one that had been previously caught.

About a fortnight later this bird was caught in the greenhouse after having killed the last of the goldfish and put with the other in the aviary, but died four days later. The first one had to be released after a month of captivity as it was proving a menace to the other birds.

Is there any previous record of the Whistling Thrush catching fish ?

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“My First Bison”.

By

“F. A. P.”

It was many a time I ventured on shooting excursions after Bison both in India and in Burma, having on these occasions walked many miles, and wandered over very rough wild country on the tracks of these animals, before I met with any success. In the generality of cases these wary beasts got a scent of us, and a vanishing glimpse of their huge forms was our only reward after hours of toil spent by my trackers and myself in their pursuit.

On the last of these shooting trips, which I had specially arranged with my brother, he having had more luck after Bison than I had had, we arranged to camp ten days out in a favourable tract of country lying at the foot of the Nilgiri hills.

We left Kotagiri for this shooting ground on the fifth of December 1909, having sent on previously our tent with provisions in charge of a Madrased servant who was well acquainted with those parts, and to whom we gave instructions as to where our tent should be pitched.

It happened to be a spot on the banks of the Bavani river, and on the opposite bank to where the Bison country lay, as our followers were afraid to camp on the wilder side on account of wild elephants which were numerous in those parts. To enable us to cross and recross the river, which at this point was over a hundred yards in width, we had to arrange at the nearest village for a man with his coracle to live with us in camp. A coracle is a circular boat constructed of buffalo hide stitched tightly on a framework of bamboo, and affords an effective means of being ferried across these rivers; their carrying capacity is from five to six persons.

We arrived at camp late on the night of the fifth, having on our way engaged the services of two local shikaries from a neighbouring village. Local trackers are absolutely necessary in such cases, as these men are continually in the habit of wandering about the jungles in search of forest produce, and are well informed of the movements of game in the particular tracts inhabited by them. These men we sent out immediately to look out for recent Bison tracks and bring us the news, while in the meantime we spent the next day in the lighter jungle in search of other game, and saw a large number of spotted deer, though we were unsuccessful in getting a shot.

That evening the trackers returned with news of Bison, and described having seen their tracks a day or so old in a valley leading from the hills some five miles distant. On this we decided to make a very early start the next morning, and before day-break we were well on our way to the Bison ground. It now became necessary that we should part company, so after settling which way we should each take, we separated, I taking one of the trackers and working up the left side of the valley, while my brother took the other and moved up the opposite side.

It was not long after this that my man came across the fresh tracks of what appeared to be a large solitary bull, so we decided at once to follow him up. The time was about 7 a.m. when we started on his tracks, and as it had been raining the day before, these were distinctly visible

in the soft surface soil, so we had no difficulty in progressing at a fast walk all the time, although we had of course to keep a sharp look out as we went along in case the Bison should be lying down, or where his tracks passed through fairly thick jungle, he might at any moment suddenly appear in view. This tracking in the early morning, with the hopes of coming up to your quarry at any time, is most pleasant and exciting work. Distance passes by unheeded and miles are covered without one feeling any sense of fatigue. It was in this style that we were going along and had crossed over to my brother's side of the valley, when my shikari bent down and examined carefully one foot-print and then another, remarking at the same time that it was no use following these tracks any further as the other gentleman had taken them up. It was hard to understand how he had arrived at this conclusion, since I could see no signs of my brother's foot-prints, it being all grass land, but this wary old tracker could apparently tell from the lie of the dew on the grass that my brother and his man were following up the same tracks from this point, and so in much disgust we had to abandon the foot-prints we had been following for two hours.

My man then struck off in a different direction in the hopes of striking other tracks, and although we came across several of these in the course of the next couple of hours search, they were none of them fresh enough to follow up, and as it began to get very hot and there was little hope of our finding Bison feeding at that time of day, we agreed to stop and take rest till the afternoon, and for this purpose made our way to the main stream of the valley which flowed through cool shady patches of jungle.

Here it was I had my midday meal of a few sandwiches and a bottle of cold coffee, which I carried with me, and felt much refreshed after it. Lighting a cigarette I stretched myself out under the shade of a tree partly overhanging the cool looking water, and would soon have fallen into a nap, had I not been disturbed by voices approaching my position, which, much to my surprise, were those of my brother and his man who had arrived on the scene.

My brother looked tired and hot and had an interesting story to tell of how he tracked the bull I had been after, of how he had got up to him lying up in some thick jungle, when the animal got scent of the approaching danger and with a few loud snorts had made away without offering the chance of a shot. He was surprised to hear I had been after the same bull, but the matter was easily explained, as the point from which my brother had taken up the tracks, and which he struck in his direct line of march, had taken me nearly two hours to reach, following as I did every turn and twist that the animal took whilst feeding and roaming about at leisure.

(To be continued.)

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Observations on Leopard or Panther and its Shikar.

By

LT. COL. H. S. Wood, (I.M.S. RETD.)

(Continued from Page 61 Vol. XVII.)

In another instance in Halflong, N. Cachar Hills, I sat up over a kill. The Machan was badly placed in a "Seemul" tree and I sat with a thick branch between my legs. I saw the panther's head appear to my extreme right. He came along, offering a lovely broad side shot, but owing to the awkward position, I could not turn to put my rifle up to my right shoulder. Below me was perfectly clear ground, and beyond that a "Nullah". The panther entered this, but on emerging, he drew back instantly. Then on the hillside opposite me, where the jungle had been fired and the green grass was cropping up, I saw a barking deer, feeding, quite quietly not 30 yards away from where the panther had passed. The next instant I saw the panther spring on the deer and both rolled down into the jungle below. It was now nearly dark and so I could not investigate. I was fearfully disappointed at my bad luck. Whether that panther saw me in the "Machan" or whether he spotted the "Kakur" and went for that, I cannot say.

In one case at Halflong, a panther had killed a very large cow in a plantation and had actually dragged it about 20 yards to a strong fence. The cow's horns had got entangled in the fence, and I found the kill in this position. I concluded from all I saw, that it must be a very large and powerful animal. I was right! At dusk, the animal came up, quite boldly, behind me and after investigating the place in the fence, where the horns had stuck, he then passed over the other side of it and settled down to have his feast! I shot him dead and he never moved. I summoned men with revolver shots, but they never came. So, I had to spend the rest of the night in the "Machan". I don't know how many times my torch flashed on that lovely animal to admire it.

The panther if not dropped in his tracks, will generally spring up into the air, making a succession of leaps, accompanied by angry growls. He will sometimes bite at the wound, like a jackal! The vitality of the panther at times, is wonderful. Once, I hit a panther with a soft nose 450 H. V. bullet at 20 yards range. The bushes close by were covered with blood, pieces of flesh and hair but still that animal went off, and I never got him! Following up a wounded panther on foot is courting disaster.

In Manipur, an Officer of the—B. I. lost his life in the attempt and got his orderly badly mauled. A native has more chance of recovering from panther wounds than a European. Amongst the former I have seen almost hopeless cases recover.

My other encounters with panthers were uneventful. The Central India Horse used to go after panther on horse back with a hog spear. I fancy it was exciting sport!! The natives employ traps set with poisoned arrows—regular leopard traps and spring guns. Poisoning is also used when they can get hold of some strychnine.

The Hawk Moths of Darjeeling and Sikkim

By

COL. F. B. SCOTT, F.R.E.S.

(Continued from page 32, Vol. XVII)

Genus PARUM Rothschild & Jordon. One species.

41. *Parum porphyria* (Butt.) *Imago* brown; fore wing variegated with ferruginous and olive-brown; a dark patch below end of cell; another at apex enclosed by a white lunule. Hind wing brown, with a dark spot above the lobe at anal angle. *Expanse* 2.4" Darjeeling; Sikkim. Very rare.

Genus CYPA Walker.

*Imago* brown or clay-colour, distal margin of fore wing dentate.

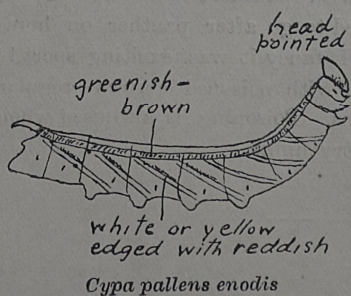
KEY TO THE IMAGINES.

In outer half of fore wing clayish or ochraceous-clay tint between shadowy bands. *Expanse* ♂ 2.2"; ♀ 2.5" ... *C. d. decolor.*

Clay-colour to cinnamon, with a strong dub or fawn bloom in fresh specimens. Hind wing tawny. *Expanse* 2.5" ... *C. pallens enodis.*

42. *Cypa d. decolor* (Walk.) Darjeeling; Sikkim, Rare.

43. *Cypa pallens enodis* Jord. Sikkim; Khasi Hills.



*Cypa pallens enodis*

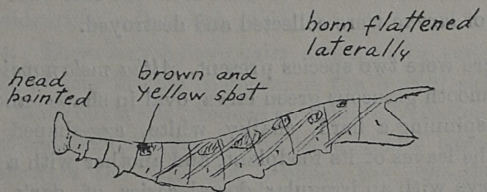
Rare. *Larva* green with a broad greenish brown dorsal stripe, and seven white or yellow oblique stripes edged above with reddish. Head pointed, horn slightly down curved, *Length* 2.4" *Food-plant*—Birch.

Genus SMERINTHULUS Huwe. One species.

44. *Smerinthulus perversa* (Roths.). *Imago* larger and more brightly coloured than *Cypa*; hind wing cinnamon-red with a blackish submarginal band. Abdomen with black stigma-dots. *Expanse* ♂ 2.6"; ♀ 3.6." Sikkim; Khasi Hills. Very rare.

Genus DEGMAPTERA Hampson. One species.

45. *Degmaptera mirabilis* (Roths.). *Imago* deep



yellow oblique stripes and irregular yellow patches

*Degmaptera mirabilis*.

ferruginous-red, variegated with ochreous and orange-yellow. Abdomen with a dorsal central row of pale golden dots. Fore wing with sinuous subboral and outermedian lines with a yellow between them; a conspicuous black stigma with a minute transparent centre. Hind wing deep reddish-brown. *Expanse* ♂ 1.8"; ♀ 2.5". Khasi Hills, fairly common. *Larva* green with yellow oblique stripes and irregular brown and yellow patches on the body. Head very pointed, horn flattened laterally, tip bifid. *Length* 2.2" *Food-plants*—Oak (*quercus fenestrata* Rox b.); birch. Pupa chestnut with a large rounded patch below and in front of eye cream-colour. When the moth is at rest a lobe of the hind wing extends in front of the costa of the fore wing, and the abdomen is bent upwards.

(To be continued).

## Pests of Tea.

By

D. G. SEVASTOPULO. F.R.E.S.

I was recently given the opportunity of breeding two Limacodid tea pests, through the kindness of Mr. Inglis, who first sent me a number of larvae and then, after these had failed to pupate, a number of cocoons. These larvae and cocoons originated on the Tukdah Tea Estate and some idea of their abundance can be reached from the fact that 185 lbs at least of larvae were collected and destroyed.

There were two species present, *Altha melanopsis* Strd. with a smooth glaucous green larva, oval in shape and very convex, spinning a hard, chalky white, egg-shaped cocoon among the leaves of its foodplant, and another with a bright green larva with an irregular, dorsal series of dark brown, conjoined, diamond-shaped marks, and with a subdorsal and sublateral series of tuft of urticating bristles, three tufts of the subdorsal series being very large, forming its cocoon on, or just below, the surface of the soil and making an egg-shaped, earthcovered object not unlike the tea seed at first glance. This habit of spinning in the soil is most unusual among the Limacodidae and it is unfortunate that all my pupae died and I was, therefore, unable to identify the species. Seitz mentions that *Setora nitens* Wlk., which is also a tea feeder, spins an earth-covered cocoon, and some years back Mr. Inglis sent me similar cocoons of *Phocodermus velutinum* Wlk., which he had found attacking Tung in the Dooars.

The Tocklai Research Station, I understand, suggests hand-picking as the best remedy for these pests, and advises the leaving of sickly larvae in order that beneficial parasites may not be destroyed. I do not consider this easy advice to follow as the interval between the beginning of the sickly appearance and the emergence of the parasite is usually very short. A number of parasites, also, emerge from the cocoons: thirty-five cocoons of *A. melanopsis* produced two Hymenopterous and one Dipterous parasite, whilst eighteen cocoons of the unidentified species produced one Dipterous parasite.

The Limacodidae is a polyphageous family, although only two species, *Parasa lepida* Cr. and *Setora nitens* Wlk., are recorded in general entomological literature as feeding on tea. Several species are coffee pests in Ceylon, and quite a number of species are pests of other cultivated plants.

Other families with tea feeding larvae include the Lymantriidae, Zygaenidae and Psychidae. The Lymantriidae have several species feed on tea and in December 1936 I bred *Orgyia postica* Wlk., *Porthesia scintillans* Wlk. and a still unidentified *Leucoma* from larvae found on tea at Pashoke. These larvae have hairs arranged in tufts which can produce very intense irritation on the human skin. The spined Limacodids also produce an intense irritation but by different means; the Lymantriids have minute barbed hairs that penetrate the skin and produce the irritation by a purely mechanical effect, whilst the Limacodids have sharp-pointed, hollow bristles containing a solution of formic acid, the points of the bristles breaking off in the skin and allowing the acid to escape.

I have no personal knowledge of the tea feeding species of the Zygaenidae, but the general characteristics of the larvae are a somewhat slug-like appearance and a series of small tubercles on the back and sides. They spin papery cocoons among leaves and develop into day-flying moths with bright, metallic colours.

The Psychidae have larvae which live in cases made of pieces of stick or leaf attached to a tough silken sleeve, they pupate in the case, the larva turning round so that the headpoints to the free end. The male alone is winged, and is reported to be much shorter lived than most moths, the female is a mere bag of eggs and lacks legs, antennae and even the vestiges of wings.

All the above three families are abundant enough to be serious pests, the Geometridae contains a few tea feeding species but I have never seen reports of their causing any real damage. They are stick-like larvae, lacking the abdominal prolegs, and pupate usually in the soil.

## REVIEW.

Report of the Game and Game Fishes Preservation Committee on the existing species of Game in Bengal. Compiled by L. R. Fawcus, C. I. E., I. C. S. (Bengal Government Press, Alipore) Price India : Rs. 3/-; England 5s. 3d.

This is an interesting, comprehensive and important little book and we think its importance requires a little more than an ordinary Review.

This excellent "Report" which has just come to hand is by no means a compilation as it is full of original matter.

Four people are concerned in the writing of this useful Manual. The brunt of the work has fallen on Mr. Fawcus' shoulders as he has written up all except the articles on the Indian Elephant, Rhinoceros, Ducks and Game Fish. His share covers Animals, Birds and Reptiles and fills half the book. It is a big bit of work, ably done. Mr. Fawcus is a good naturalist, trustworthy observer and keen sportsman; those qualities, added to a long residence in Bengal, made him the best choice to undertake this work.

Mr. Dent, who has written the chapters on the Elephant and the Rhinoceros, is also an excellent selection as, during his career in the Imperial Forest Service, he has had much to do with Elephants and their capture and, we believe, to him is due the great success in tracking down the Rhino poachers and bringing them to book. He also is an excellent naturalist and wild life photographer.

Mr. Lewis' name is well known to our readers through his beautiful photographs of birds and interesting notes on them. Besides being a fine naturalist, and photographer, he is also a very keen sportsman and so has been able to write authoritatively on all to do with duck and their shikar.

The last author is Dr. S. L. Hora, also known to our readers. He is the leading authority on Indian Fishes and one who has done much work in the field as well as in the laboratory.

The Committee has been fortunate in being able to secure the collaboration of these naturalists and sportsmen.

The book contains a full contents table, followed by a note giving the authority under which the work was brought out; the number of Sections in it and acknowledgements to those who helped to write it. An introduction is next given by Mr. Fawcus and starts with a biographical sketch of a Bengal Civilian, of days gone by, named George Udney Yule. This nimrod joined the Service in 1831 and in a space of 25 years slew over 400 tigers and continued their destruction, a feat he might well have been ashamed of. One of his favourite hunting grounds was twice visited by Mr. Fawcus. In 1912 there was still much game in existence, but when visited again 30 years later, there was none. Truly it was time for steps to be taken to preserve any game left in Bengal.

The book is divided into four Sections : Animals, Birds, Reptiles, and Fish. Short, but sufficient descriptions with, in some cases, keys are given, as well as the distribution, remarks on the habits of the species and their protection.

Section A begins with an account of the Greater and Lesser Cats, the pride of first place being, naturally, occupied by the Tiger. It is shown from which direction this animal, and the Leopard, probably originally entered India. A table is given showing the number of reported deaths of human beings and cattle, in forest areas, over a period of 10 years. This shows what little damage is done by these fine felines.

We doubt whether the Snow Leopard will ever be found within Bengal limits. The country, even on the higher slopes of Singalila, does not seem very suitable and the animal's principal food, wild sheep etc., is absent. The snow-line too is so much higher here than in that part of the Himalayas frequented by this animal. It does descend as low as 6000 ft. in winter, in the Western Himalayas, but it seems doubtful whether it does in the Eastern. If we remember correctly neither Lt.—Col. Bailey nor the late Mr. Williamson ever saw it in Sikkim though there is ideal country for it there right up in the North. Two cubs brought here may have come from there or from some part

of Tibet. We understand that a large number of the skins seen in the furriers shops in Darjeeling come from the other end of the Himalayas. We may prove to be quite wrong and think it right to include it.

With regard to the distribution of the Marbled Cat we have 3 fine specimens from altitudes varying from 900 to 7400 ft. obtained in the months of April, May and December. The tail of this handsome cat is very bushy.

The beautiful little Leopard Cat seems to be commoner in the Western Duars than elsewhere in that District. Our few specimens were obtained between the level of the plains, in the Duars, and 5000 ft. in the Hills. They are, as a rule, rather savage little beasts but have been tamed in captivity.

After the Cats the Civets are described and no one should have any difficulty in identifying any of them by the very concise, and lucid, descriptions given. We once saw a tame Binturong here which we understand was captured either in the forests of Chittagong or Chittagong Hill Tracts.

The Mongoose too should be easily recognizable. We found the Crab-eating Mongoose not uncommon in the Duars and have seen several in the Hills. Mr. Shaw had some alive at Mangpu.

The Weasels, Otters and Bears form a rather mixed lot but all will be easily recognised from the descriptions.

The late H. V. O'Donel once came across the Indian Marten in the Duars but we know of no others being seen. Some people mistake the large, somewhat similarly coloured, Squirrel for this Marten.

The same naturalist saw a specimen of the Brown Ferret-badger obtained somewhere West of the Torsa River in the Duars and also recorded a specimen of the Burmese Ferret-Badger from the Eastern Duars. This was possibly a wrong identification. If we remember correctly, Mr. Riches also came across one of these Ferret-Badgers in that District. The Brown Ferret-Badger is brown and the other is brownish-grey.

We next come to the Rodents. Not many of those can strictly be termed Game, but Mr. Fawcus, rightly, includes a large Squirrel and the Porcupines, both of which are shot, the former for its fur and the latter for its destructiveness and good eating.

The Assam Giant Squirrel ("Large Malay" of the Report) is a common feature in the forests of the Duars.

There is another large, striking-looking Squirrel which might be mentioned as it always attracts attention when seen. This is the Himalayan Flying Squirrel. Its head and body measure 16 inches and it has a tail measuring from 18 to 22 inches. The most striking feature it possesses is the membrane, or parachute, which connects the limbs. The general colour above is maroon and underneath rich buff. It is found on the hills and by no means uncommon round about Darjeeling, even coming into the Station itself. A friend shot one just above the Chowrasta. We had the good fortune to see one in flight. We were coming up one of the roads in the Station, at dusk, when we saw something shoot out from high up in a Cryptomeria tree and come straight towards us through the air. At first we didn't grasp what it was; it looked just like a boy's kite. It landed on the trunk of another Cryptomeria some distance away. These squirrels sleep during the day.

The Hispid Hare is said to have been found in the Duars but we know of no authoritative record of this.

Mr. Dent now writes, very fully, on the Indian Elephant both in the wild and captive states. He first deals with "Living and extinct species of elephant". Something that few people know is that 7 species of Elephant once inhabited India. The history of these huge pachyderm is most interesting. Then the distribution of the Indian Elephant is given and after that the number of wild Elephants in Bengal. At a "conservative estimate" he puts the latter at a little over 1000. Many other points are dealt with such as dimensions, habits, whether wild Elephants are dangerous or not, the Elephant in captivity and catching Wild

Elephants. The whole article covers 6 pages and the reader will find in it all he could wish to know.

To us, an even more interesting article is that on "The Rhinoceros in Bengal" by the same author.

We have always been interested in these huge animals and on two occasions had the privilege of seeing them in their wild state.

This article is also divided up into headings, viz:— "History of the Asiatic Rhinoceros", "The Great Indian Rhinoceros of the Bengal Duars", "The Menace of the Rhino-Poacher", "The Torsa Rhinoceros Sanctuary" and "Legislation for the protection of the Rhinoceros".

In the "History of the Asiatic Rhinoceros" the author gives interesting information about the Smaller one-horned Rhinoceros and the Asiatic two-horned species both of which have been found in Bengal up to recent years. As it is possible that they may still exist in the Province, we think copies of the text-figures given in the first edition on Mammals, in the Fauna of British India Series, would have been useful. This History to sportsmen to recognize the various species is one of the most interesting things in the book and one which brings home to one, forcibly, the great necessity there was for legislation to protect the few remaining Rhino. This article, also, gives one a very clear insight as to how game can be wiped out by people like those Rhino poachers. It is good news to hear the Rhino are not only holding their own, within the Sanctuary, but are on the increase. One of our experiences was the following up of a Rhino which was wounded by poachers, and bringing in the horn after the animal had been put out of its pain. It was a pitiful sight to see the huge suppurating sore which the animal had suffered from for days.

Mr. Fawcus now continues with his contribution.

It is many years since any trustworthy records have been given of the existence of the Pigmy Hog in the Jalpaiguri District.

Pangolin, being nocturnal in their habits, are seldom seen. We have had them sent to us, on several occasions, from tea gardens in the neighbourhood of Darjeeling.

This ends Section A ; Section B on Birds begins with Pigeons and Doves.

Our experience of Green Pigeon in the Duars is that the Bengal and Pin-tailed Green Pigeons are the commonest, next to them the Thick-billed, more especially round Khuntinari, then come the Kokla and Orange-breasted and the rarest of all, the Ashy-headed species. We only once got it. We found the Orange-breasted rare, only coming across it on one or two occasions, but probably that was just our bad luck.

The Key which is given will be most helpful to those who take an interest in knowing what they shoot.

Of the fine Imperial Pigeons we recently found Hodgson's Imperial common in the Moraghat Forest in the Jalpaiguri District, where, formerly, only the Green Imperial Pigeon was found by us. The Ashy-headed Wood-Pigeon has been recorded, once or twice, from the Duars and we have the skin of one collected near Gorumara in our private collection.

The Purple Wood-Pigeon we have never seen, nor heard of, anywhere in that District nor in the Hills.

There is another Wood-Pigeon found in the Hills at high elevations. It is the Speckled Wood-Pigeon. In colour it is a mixture of claret-red and grey, with some white speckling on the wing coverts. It has been found as low as 5000 ft. in winter, and we have it from 500 ft. higher in April.

There is a big Dove which is often shot by sportsmen in the Duars, it is the Rufus Turtle-Dove, usually called the "Bamboo Dove". It can easily be recognized by the brown with rufous-edged feathers on the back. It is commonly found in the rice stubble after the crop has been cut, and gives good shooting.

The Bar-tailed Cuckoo-Dove is common in the forests of the Duars. We found many round Rajabhatkhawa and Gorumara.

The Sand-Grouse can be passed over, and we next come to those fine Game birds, the Peacocks and Pheasants.

To us a very striking difference between the Burmese and the Common Peacock is the beautiful metallic scale-like feathers of the neck and breast in the Burmese species. Also the hen of this species is far more beautiful than the rather dowdy hen of the Common Peacock as she also possesses the grandeur of the males' scale-like feathers, and only lacks their train.

We understand that, nowadays, there are no Peefowl in the Chittagong Hill Tracts.

The British Museum has a skin of a Grey Peacock-Pheasant, said to have come from the Duars, and while staying at Buxa we were given a specimen, but both of these may have come from Bhutan, from where we obtained several specimens alive.

With regard to the Kalij Pheasants, we have seen the Black-backed Kalij at plains level in the Tondu Forest, near Letagari. The Black-breasted Kalij, so far as we know, has never crossed the Sankos River from Assam to Duars.

The high elevation Blood-Pheasant needs, we think, special protection because it is rather a tame bird and a whole covey can be wiped out without very great trouble. We know of this having been done. The other Hill Pheasants are quite capable of looking after themselves, but a good many Tragopans and Monels are snared.

We have now reached the " True Quails and Partridges ". There is another true Quail which has occurred in the Jalpai-guri District, and may crop up again; it is Primrose's Bush-quail. We had the honour of having it named after us. The only Bengal specimen was obtained near Alipur-Duar in 1893, no one has come across it since then. We found it common, not very far from the Duars, on the opposite side of the Sankos in the Goalpara District of Assam. It

measures about 7 inches. The upper parts are grey, barred with black; the forehead, cheeks and chin are rich chestnut and there are two white patches in front, and behind, the eye; the lower plumage is buff with black arrow-shaped markings on each feather. The hen has no chestnut on the head.

This handsome little Quail was found by Mr. Primrose and myself, in ekra covered nullahs on a teagarden, and all the specimens obtained were secured by driving them out of this.

They rise, as a rule, close to one's feet when found on the edges of these nullahs, fly a short distance and drop like a stone into cover.

We quite failed to find the Red-breasted Hill Partridge in the Duars. Round Buxa was the most likely spot to find them but all birds shot there were Blyth's Hill Partridge.

The decrease in the number of Black Partridges in the Duars is very great, but birds have been imported and put down so we hope these will do well.

There is only one place in the Duars where we have found the Swamp Partridge. This is now in the Torsa Game Sanctuary.

We think the shooting of Partridges should be closed throughout the year, until they increase in numbers. Unfortunately a certain number lay in the tea and their eggs are taken by the teagarden labourers.

With regard to the Floricans it is a very long time since we heard of any reliable record of the Lesser Florican being found in the Duars but we do see, practically every winter, one or more of the Bengal Florican in that District; and this not by hunting for them but just walking along teagarden roads, in the proximity of grass land, sometimes they rise from the grass and sometimes from the tea.

In the Duars, and elsewhere, we have found the Eastern Golden Plover on grazing grounds,

The Woodcock does breed in Bengal as we found a nest, containing 4 fresh eggs, at Sandakphu on the 2nd July 1904. Woodcock shoots are held, during the winter, on many teagardens in the Hills, especially where these are cardamons.

In the Duars, so far as we know, no Short-toed and Finch Larks occur. In Bihar both do, but the principal bird snared by mirshikars and sold as "Ortolans" is the Indian Tree-Pipit.

We now come to Mr. W. A. S. Lewis' most interesting account of "The Duck and Geese of Bengal". He starts with an account of the different reasons which may affect the number of duck appearing, at any place, during different years and how difficult it is to try "to determine whether over a period of years, the number of duck wintering in Bengal had fluctuated to any very appreciable extent". The reasons given are very full and accurate. This article is divided into three headings, viz; "Typical localities", "Methods by which duck are commonly shot or caught in Bengal", "Short notes on individual species".

Under the first heading the author describes five of these and under each one gives a list of the duck likely to be found in them. These notes will prove very interesting to sportsmen, as a fund of information is given in them. Then follows a most interesting table showing bags of various species obtained over a period of some years, by a single sportsman, in four different districts of Bengal; also full notes on it are given, which makes it more interesting and instructive. It is interesting to compare this table with a very similar one from Bihar, published in a recent number of our Journal.

A friend of ours shot a Bar-headed Goose in a very unusual place in the Duars. It was a single bird on a very shallow stream running through a teagarden. A well aimed shot, from a .410 gun laid it low and it now rests in our Museum.

We agree that the village shikari is not a great menace to the duck population. Some of these men are excellent

observers and can pick out, *on the water*, duck so much alike as the Eastern White-eyed Duck females and the Common White-eyed Duck. These duck are by no means easy to identify when in the hand. Mr. Lewis deals with the various ways of shooting duck in the Province, such as flight shooting; shooting from cover and shooting over decoys, in a most interesting manner.

He then tells us about the snaring, and netting, of duck. We had never heard before of the method of encircling a small island with nets.

The author concludes his article with notes on individual species. There are two sub-headings: "Breeding in India" and "Duck not breeding in India, excluding the Himalayas and Kashmir". Under these short notes are given, concise but accurate, descriptions of the various species, as well as interesting notes on their habits.

In a footnote to Mr. Lewis' article, Mr. Fawcus mentions four other duck. Perhaps a few notes on them may not be out of place.

The Pink-headed Duck is a most interesting species as it is only found in India. Unfortunately it seems to be gradually reaching the verge of extinction all over its habitat although, in North Bihar, it seems to be less rare than in most other places. We hope it is not extinct in Bengal and that someone in the Malda District will thoroughly investigate this matter. It is an easily recognized duck, its pink head and hind neck, rather like the colour of pink blotting paper, is sufficient to tell it from all other duck. The female is similar, but the pink is not nearly so pronounced. We kept several of these duck in our aviaries in Bihar and once an egg was laid.

Another resident duck is the White-winged Wood-duck which, as mentioned by Mr. Fawcus, has been reported from the Chittagong Hill Tracts. It is a fine big duck, similar to the Nukta in size. This duck has the head and neck white, mottled with black; mantle glossy black and most of the wing-coverts white, forming a conspicuous white patch, the lower parts are chestnut-brown, mottled with

black on the breast. There is little difference between the sexes. It is a forest duck, frequenting both large, dense areas and also smaller, less dense ones. They are shy birds and found in pairs, or small parties, and roost on trees.

The Marbled Teal has been found breeding in India, but only in Sind and Baluchistan. It is easily recognized by its silvery-grey colour and brown patch round the eye. The sexes are nearly alike. It is a small duck.

The last duck mentioned in the footnote, the Falcated Teal, is non-resident and the drake is a very handsome bird indeed. Its crown is chestnut and the sides of the head and crest, metallic green; below the eye is coppery-bronze. There is a green collar round the neck and the breast has beautiful black, crescentic bars. In the adult long sickle-shaped feathers droop over the tail. The duck is often mistaken for that of a Gadwall, but the latter bird has 16, and the former only 14 tail feathers. Also in the Gadwall the exposed inner-secondaries of the wing are white, whereas in the Falcated Teal they are black, tipped with white. In North Bihar we found both species mixing together.

Before our notes on these duck we should have mentioned that in the Duars we have seen the Goosander at a considerable distance from the Hills. In Bihar it goes right into the plains, out of sight of the mountains.

After the Ducks, Mr. Fawcus resumes his contribution and discusses "Semi-sporting Birds" and "Curlew and Whimbrel". We would add to those already mentioned, the Indian Stone-Plover, better known as the Goggle-eyed Plover; these birds are often shot in the Duars. Its larger cousin, the Great Stone-Plover, which frequents river banks, is not often seen and seldom shot. The Indian Stone-Plover and Godwit are excellent eating.

We now come to Section C—Reptiles.

In India the broad-snouted Crocodiles are often, erroneously, called "Alligators". Large Crocodiles are of no use for making into bags etc., as the scales on their bellies are too big.

Monitor Lizards are very often mis-named "Iguanas" out here. The key should help greatly in identifying these reptiles.

Section D, the last in the book, has been written by Dr. S. L. Hora. It deals with some of the Game Fishes of Bengal. If another edition is called for, we hope more of these will be included in this section. None of the tank fish have been given. We see no reason for their exclusion, unless for the want of space. What the author writes about the Mahseer is, especially, interesting, even to those who are not anglers. A very useful diagram is given, showing the three species of Mahseer and the Katli. There is still much to learn about our sporting fish.

With regard to scientific names, we think they should either be used everywhere or not at all. If used, the most up to date ones available should be given.

We understand that only a very small number of copies of this useful, and important, book has been printed, and hope it won't be long before a second, and enlarged, edition is brought out. Illustrations would have been most useful, but we know that these were impossible under present conditions.

We thoroughly recommend this interesting, and useful, Manual to all Bengal sportsmen and others who are interested in the wild life of the Province. We do not know whether other Provinces have published similar "Reports", if not, we can assure them they would prove of great interest. Sportsmen and Naturalists. Those outside Bengal, will also find much of interest in the present work, and the price is very low.

*Editor.*

Obituary.

*Philip Valentine Osborne.*

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It is with the deepest regret that we have to record the death of Philip Valentine Osborne who was a member of our Society since its inception.

He came from Ipswich and underwent his training at Kew. In 1912 he came out to India and was posted to the Royal Botanic Gardens and Eden Gardens, Calcutta. He went through the whole of the Great War with distinction, serving in the East African Campaign and was the possessor of a row of medals of which any soldier would be proud.

In 1918 he went into Cinchona and was posted to Munsong. He was Curator, Royal Botanical Gardens from the 17th July, 1919 till the 12th December 1920. He then returned to Munsong, as Assistant Manager till the 6th February 1921 and then was posted as Manager at Mangpu. He married either in 1920 or 1921 and his wife, Maud, died in December 1927. Her death made a terrible difference in his life. She was the kindest person in the world and they were a devoted couple. He managed the Cinchona Estate, at Mangpu, until November 1941, when he was transferred to Munsong in the Kalimpong sub-division. Breaking up, and leaving, the home he had made so comfortable and beautiful, the place where his happiest days had been spent, was a terrible blow to him and he didn't settle down at Munsong and only remained there till August 1942 when he took leave, preparatory to retirement. Unfortunately he was not destined to enjoy his retirement, nor see his dear children again as he died in the Charteris Hospital at Kalimpong, of a heart attack, on the 16th June 1943. He was buried on the following day, and rests next to his beloved wife. He has left a daughter and a son, both in England. To them we give our deepest sympathy.

Phil Osborne was one of the kindest and most likeable of men and we have very many happy memories of our frequent visits to him and his wife. We were always

looked upon as one of the family and were always welcome to stay as long as we liked.

Phil was a very keen, and successful, gardener and his garden was always a blaze of colour and possessed the knack of arranging his flowers in a tasteful and artistic way in their bowls or vases. He was artistic too in other directions, in his house, his garden. In photography his artistic sense had full play and he was always successful in picking out beautiful settings for his photographs. His skill was great, equal to, often better than, that of most professionals. We always told him he should set up a studio when he retired. He was always very willing to help us where photographs, or anything else, were required. We have mentioned the beauty of his house and garden. We knew both before he went to live there and so saw the wonderful changes he made. Another thing he did was to make a very sporting golf course at Mangpu !

He was a keen volunteer, good rider and owned good ponies ; he, also, excelled as a revolver shot.

Mangpu is one of the most beautiful spots we know ; and no wonder its surroundings have inspired the love of nature in most of those who have had the privilege of living there and the names of Gammie, Pantling and others are famous in the annals of Natural History and Botany, and in recent years Shaw did wonderful work in all branches of the former. It has also always been the ambition of Natural History collectors to visit Mangpu and many world known specialists have collected there such as Dr. Percy Moore & Lt.-Col. F. C. Fraser the former specializing in Leeches and the latter Dragonflies and Cicada.

Phil Osborne, who was a good botanist, had always a fund of information to give on the wild trees, shrubs and flowers gained during a stay of 20 years amongst the beautiful surroundings of Mangpu.

By his death we have lost a kind, true friend, one who cannot easily be replaced.

*Editor.*

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