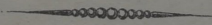


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No 3.

Game Birds of Sikkim, including the Darjeeling District,  
and of Jalpaiguri District, Bengal.

By

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

(Continued from page 45)

We now come to the second Subfamily *Argusianinae*. This comprises two genera *Argusianus* and *Polyplectron*. In the first is the Argus Pheasant, which doesn't concern us. In the latter are the Peacock-Pheasants, one of which occurs in our area.

[28] The Bhutan Peacock-Pheasant

*Polyplectron bicalcaratum bakeri* Lowe

The type locality of this bird is the Bhutan Duars and the only specimen we have seen came from there.

The male has a short hair-like crest. The whole plumage is grizzled greyish-brown, grey predominating, the grizzling produced by numberless small white spots; these unite and form bars, more or less indefinite, from the lower back to the upper tail coverts, also on the lower plumage, the bars being more definite on the breast and abdomen. The upper back, scapulars, inner secondaries and nearly all the wing-coverts are tipped with rounded iridescent ocelli or eyes of violet, shading to dark green, surrounded with a brownish-black band and a broader outer rim of white. The ocelli on the tail are oval and much longer and greener in colour and are in pairs, one in the centre of each web.

In the cock the length is up to 26 inches with a tail up to 16 inches; weight up to 2 lbs.

Bill upper mandible and tip of lower black, rest yellowish-fleshy; iris white; facial skin yellowish-fleshy; legs slaty to leaden-black.

The number of spurs on each leg varies and there is not always the same number on both. Beebe worked out a proportion as follows:—"2 + 2=70 per cent. 2 + 1=20 per cent. 1 + 1=5 per cent. 3 + 2=5 per cent." The hen is a smaller bird, about two thirds the size of the cock and with a tail about half as long. She is 'similar to the male but duller with the ocelli less brilliant, the rings of black and white being replaced by broken bars; the ocelli on the shorter tail-feathers are obsolete; the pale buff or white on the throat is more extensive; the crest more developed and more feathery. Very old females are sometimes almost indistinguishable from males except for their shorter tails (*Stuart Baker*).

"Iris brown, grey-brown, or grey; bare skin dull fleshy; legs and feet paler" (*Stuart Baker*). Weight about 14 ozs.

The distribution according to the *Fauna of British India* is "Sikkim, Bhutan to East Assam, Cachar, Sylhet and Manipur. Comilla birds are intermediate, whilst Chittagong birds are nearer true *Polyplectron bicalcaratum*." There are specimens in the British Museum obtained by Mandelli in the Buxa and Bhutan Duars. Mr. Phillips of the Indian Police sent me a skin obtained in March about 4 miles S. E. of Buxa in the Duars at an elevation of about 2,000 ft. *Stuart Baker* gives this Pheasant as having been recorded at an elevation of 6,000 feet in the Darjeeling Hills. Neither Stevens nor Masson mentions it, nor have we been able to get any proof of its having been seen or obtained anywhere in these hills. There are however three skins in the British Museum labelled "Darjeeling"; possibly it is to these that *Stuart Baker* refers.

It is a bird more of the foothills than hills or plains and is commoner below 2,000 ft. than above it. In Cachar we found it in heavy forest with a good deal of undergrowth and a stream near at hand, but *Stuart Baker* has found it "in bamboo-jungle, in scrub and grass, in abandoned cultivation, in the bush jungle growing on and in the edges of streams and sometimes even amongst the tea bushes in tea gardens." We found them rather shy birds and inveterate skulkers

and the only way we ever shot any was by patiently following up their call. One had to stalk very carefully and many times we have reached the spot, often the fallen trunk of a tree, where the bird was calling, only to find it had slipped away into the undergrowth. The crow has been syllabalized by Beebe as *Phée-hoo*; it is very long and penetrating, uttered at intervals of fifteen seconds or a minute, generally from a raised position, either a low branch or fallen tree trunk. Another call has been syllabalized as *qua-qua-qua* or by Beebe as *wak-wak-wak*; this is apparently an alarm note. Stuart Baker says that when feeding "they keep up a continuous murmur of sound *croo-croo-chuckle-chuckle-croo-croo*." They have a delicate gait, stepping about daintily and slink under any obstruction rather than fly over it; on account of this habit they are easily trapped. Baker gives an account of this. "The Nagas and other hill tribes catch them by making a little brush-wood fence, not more than a few inches high, across strips of jungle frequented by pheasants, leaving here and there little openings in and about which they place mithna-hair nooses. The birds as they hunt for food come across this fence and, rather than go over it, will hunt along it until they come to an opening and in this way walk into the nooses and are caught." They will seldom fly if they can help it but when forced to do so their flight is, according to Stuart Baker, "slow and heavy, though it gets up a considerable velocity when it swoops down the face of a steep hill."

With regard to its display Beebe writes:—"The attempt in each case is so to spread the tail and the secondary feathers that they may simultaneously impinge upon the vision of the hen.....At this stage the cock begins a nervous scratching of the ground, at first indefinite and with hardly a glance to see if anything edible has been uncovered, but at a still later stage he will provide himself with an insect or some other dainty, sometimes holding it and following the hen quietly, without a sound. He then utters the low content or brooding call several times, and this usually attracts the hen, who approaches. Now is the time for the grand finale of the courtship display. When she is but two or three feet away, he flings the bit of food toward her. Although I have seen this several times, I am not sure that it is done intentionally, for the

beginning of the full frontal display is accompanied with several violent shakes of the head, perhaps to aid in the full erection of the crest, and it may be in the course of one of these involuntary jerks the food is thrown to the ground.....Simultaneously with the jerking of the head the breast feathers are puffed out and the bird leans forward, displaying every ocellus in a way in which I have never seen correctly depicted. The wrists are lowered until they practically rest upon the ground, the primaries not spread, but pointing upward in the normal direction as in the closed wing. The coverts, secondary and tertiary feathers are spread to the utmost, the innermost joining across and concealing the plain back, and the outermost touching the ground. The tail and the row of greater coverts are perfectly vertical, and spread so that they form a complete half-circle, fanning out to within an inch or two of the ground, the ocelli, even on the shorter feathers, showing clearly outside those of the secondaries and wing coverts .... "Baker". The display of this Pheasant is very beautiful, both wings being fully expanded with the tail, so that the whole looks like a beautifully ocellated fan.

The chicks follow close behind the hen, who holds her tail widely spread and so forming a screen for them.

Unlike the Peafowl, these birds are monogamous. The food of this Peacock-Pheasant consists of grain seeds, leaves, insects, worms, small snails, small frogs, etc.

They breed mostly during April and May; the favourite spots "are ravines in forest with very dense undergrowth and the thick tangled secondary growth on deserted cultivation" (*Stuart Baker*). Two is the usual number of eggs laid but up to six have been taken. In captivity Beebe writes:—"It has long been the custom when breeding the Peacock Pheasant in captivity to remove the two eggs of the set as soon as they are laid, and thus to induce the hen, in the course of a few weeks, to lay again.....a single hen will produce eight to twelve or over fourteen eggs in a season." The eggs are broad ovals, the texture close and hard and they range in colour from pale cream to chocolate buff. They are covered with small chalky pits. A clutch in my collection is pinkish-white. *Stuart Baker* gives the average size of forty eggs as 46.5 × 35.9 mm.

Beebe writes "the first record of a grey Peacock

Pheasant was based on a bird living in captivity one hundred and seventy years ago. Since then they have been kept and bred many times in captivity.....There are records of the age of thirty-nine individuals which have lived in the London Zoo. The average length of life has been four years and a half, while one pheasant lived to the good old age of fifteen years." An allied species lived in the Calcutta Zoo for more than seven years.

*(To be continued)*

The Crow family of our area.

By

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

( Continued from page 54 )

The genus *Urocissa* comprises some very large and beautiful Magpies. They are easily recognized by their very long blue graduated tails, bluish plumage above and red or yellow bills and legs. No author seems to have noticed that the tips of the longest tail feathers turn up on the outside web. We have noticed this in *flavirostris* and presume it is the same in the other species. The tail got flattened out in the skins. They are exclusively hill birds; one species has been doubtfully recorded from our area, but the other one is commonly seen at the higher elevations.

- A. Bill red; white nape patch large, reaching to end of black on hind neck..... The Red-billed Blue Magpie.
- B. Bill yellow; nape patch small, not reaching to the end of the black..... The Yellow-billed Blue Magpie.

[ 6. The Red-billed Blue Magpie. ]

*Urocissa melanocephala occipitalis* (Blyth).

*Field identification*.—A large Magpie with very long, graduated tail, drooping gracefully. The bill and legs are red and the head, neck and breast black, with a large white patch on the neck. The upper plumage is purplish-blue and the lower whitish. It is seen in small parties in forest above 5,000 ft. and has an undulating flight.

*Description*.—Length 28 inches; wing 8 inches and tail up to 19 inches. Head, neck and breast black; a large white patch from the nape down the back of the neck and tips to some of the feathers on the crown white. Rest of upper plumage purplish-blue, the wings and tail-feathers tipped with white, and the latter, except the central feathers, with broad black subterminal bands; the upper tail-coverts are tipped with black and the lower plumage white tinged with purple. Sexes alike.

Iris red-brown, bill and legs red.

*Distribution:—Inside our area*—Baker (*F. B. I. Birds and Ed. p. 42*) gives it as found in Sikkim, but we do not know on what authority. Oates, when writing the 1st edition of these volumes, could find no evidence of its occurrence there and neither Meinertzhagen, Stevens nor ourselves have found it anywhere in that State.

*Outside our area*.—"N. W. Himalayas through Nepal to Tibet" (*S. Baker*).

*Habits, etc.*—They are found in small noisy parties in evergreen forest from about 5,000 up to 12,000 feet. The flight is slow and undulating. Jerdon says—'It will eat raw meat, young or small birds, insects, and indeed almost any kind of food. It has been said that they will follow a Leopard for a long distance screeching at it from the trees. A good deal of its food is obtained on the ground'.

They breed from April to June, making a nest of twigs, lined with roots and placed in trees at various heights from the ground. The eggs, 3 to 6 in number, have a ground colour of yellowish or reddish stone colour, blotched and speckled with various shades of brown and with underlying markings of pale sienna and purple. They average 1.33 by .93 inches.

#### 7. The Yellow-billed Blue Magpie.

*Urocissa flavirostris flavirostris* (Blyth)

*Field identification*.—This bird is ashy-blue above and whitish below. The yellow bill and feet will easily distinguish it from the last species; besides it is the only one likely to be seen in our area. They are often seen on the ground as well as on trees and only occur above 4,600 feet.

*Description*.—Length about 26 inches, wing 7.2 inches and tail up to about 16 inches. Head, neck and breast black with a white patch on the nape, tinged with pale purplish-grey; upper plumage purplish-ashy, the tips of the upper tail-coverts being black; the wings are tipped with white and the tail purplish-blue tinged with ashy; the feathers are broadly tipped with white and all, except the long central ones, have broad black bands in front of the white. The lower plumage is light lilac-grey suffused with creamy yellow, especially on the abdomen and under tail-coverts. Sexes alike.

Iris bright yellow; bill wax-yellow; legs orange-yellow

*Distribution*—*In our area*—Stevens found this bird as high as Tonglu (10,000 ft) in winter but it ascends higher, as both he and ourselves have seen it at Sandakphu (11,000 ft.) in March and April. Meinertzhagen observed it as low as 4,600 ft. at Singhik, in Sikkim, during the winter (*Ibis* 1927, p. 372).

*Outside our area*—"Bhutan..... and hills N. of the Brahmaputra, probably Eastern Nepal, Chin Hills" (*S Baker*).

*Habits, etc*—This fine Magpie may often be seen in rather noisy parties of 4 to 10, or only in pairs, either flying with slow, undulating flight from tree to tree or else hopping about on the ground with tail well elevated above the ground. Walking up the road from Ghum to Senchal some may generally be seen near the roadside, in fact they appear to favour certain tracts of forest and in those they may, generally, be found. They are mainly arboreal though not entirely so, nor do they only keep to forest but may also be seen on the open rocky hill-side near Sandakphu. They are sometimes extraordinarily tame. Stevens (*Journal B. N. H. Soc. Vol. XXIX, No. 2, p. 514*) mentions some that persistently visited his camp for the carcasses of the specimens he had skinned "they would hop about my tent door within one or two paces from my feet, and were very voracious, often taking up in their gape three or four large pieces of raw flesh before taking flight".

We noticed the same at Rambi in the Darjeeling District, where birds came to the kitchen to pick up scraps which were thrown out. We have also seen them, on several occasions, hopping across the motor road there.

They feed on small mammals, the young and eggs of birds, insects, fruit and berries. Their call is rather like that of the Green Magpie but not so harsh.

They have lived, in captivity, in the Calcutta Zoo for nearly 3 years

They make a large, rough cup-shaped nest of sticks, lined with leaves, and placed in the fork of leafy trees. The breeding season is probably May, but the only record at present is one egg, said to belong to this bird, and taken in the Chumbi Valley on the 7th of May. The eggs will probably be found to be similar to the Western race (*U. flavirostris cucullata*). That bird lays 3 or 4 eggs, the ground colour of which is dingy yellowish or reddish stone-colour, blotched and

In fresh specimens the tips of the long central feathers are creamy-yellow, as are also the tips of the other tail-feathers on the under surface; the shafts of the tail feathers are the same colour underneath.

speckled with various shades of brown, sienna and purple. They measure about 1.20 by .92 inches.

Our representative of the genus *Cissa* can be easily recognized by its green colour, full crest and much shorter tail than *Urocissa*.

### 8. The Green Magpie

*Cissa chinensis chinensis* (Bodd.)

*Field identification*:—A beautiful, rather stoutly built, yellowish-green Magpie with a black band through the eye to the nape, and red bill, legs and rims to the eyelids. It keeps principally to forests below 5,500 ft., where its loud, harsh, discordant cry generally reveals its presence. Often seen in the company of Laughing-Thrushes, etc.

*Description*:—Length 15 inches; tail 8 inches. Head crest and neck greenish-yellow with a broad black band through each eye, meeting at the nape; upper plumage and tail greener, the latter with white tips to the feathers, and all, except the central ones, with black bars in front of the white tips. The lower plumage is pale yellowish-green and the wings brown on inner and red on outer webs; the innermost feathers tipped pale blue and with black bands in front of the tips. Sexes alike.

Iris blood-red; edges to eyelids wattled and red, very distinct in life; bill and legs coral-red.

The plumage of this bird in ill health and when skins are at all exposed to light changes. The yellow pigment is evanescent and leaves the plumage a cerulean blue; the red on the wings also becomes duller. We have been able to keep cabinet specimens for some time in their original colour by wrapping them in red-coloured papers; one specimen which we have had for nearly six years has scarcely changed at all but others, kept for a shorter period, have altered in colour a good deal. We are often asked by visitors, who see a blue bird exhibited, why we call it a green Magpie when it is blue.

*Distribution*:—*In our area*—From plains level in the Duars up to about 5,500 ft. in the Hills. It is resident wherever found.

*Outside our area:*—"Himalayas from Jamna Valley to the extreme East of Assam, North & South of the Brahmaputra, Eastern Bengal, Burma, Shan States & Northern Siam" (S. Baker)

*Habits, etc:*—This beautiful Magpie inhabits, principally, thick, shady forest but is also met with in bamboo and deciduous forest. Some, at any rate, are very local in their habits. There is one bend on the road between the Mangpu Cinchona plantation and Sureil where one can nearly always hear, if not see, one of these birds. We saw one in a small patch of trees in the compound of a tea garden in the Duars, probably a mile or more distant from the forest. This is most unusual. They are often found in the company of Laughing-Thrushes and others birds, in hunting parties; often only one Magpie being with the flock. Formerly O'Donel saw these Magpies in quite large flocks but not of recent years. We have only noticed them singly or in pairs.

Their notes are very harsh; Stevens syllabulizes them as a quickly repeated *peep, peep*. Although so brightly coloured they are not very noticeable in the heavy forest but their note generally gives them away. In the more open or deciduous forest they are, of course, easily seen.

They feed both on trees and on the ground and their food consists of insects, especially the larger ones such as grasshoppers, mantides, beetles, etc, also lizards, young birds, etc. A specimen we had in captivity killed and ate a fully grown Hoopoe. They become very tame in captivity and have lived up to 6 years in the Calcutta Zoo.

They breed in April and May, making a cup-shaped nest of twigs, leaves, grass, etc, lined with roots and placed in a clump of bamboos, a bush or sapling. They lay from 4 to 6 greenish-white eggs, freckled all over with pale yellowish or greyish-brown. They measure about 1.3 by .90 inches.

We now come to the Tree-pies of the genus *Dendrocitta*. The birds of this genus have all got short, much curved, black bills and long graduated tails but not as long as *Urocissa*. They are very arboreal.

A. Tail ashy and black

a. Crown and hind-neck sooty-brown; abdomen rufous.....The Bengal Tree-pie.

b. Crown black; hind neck and abdomen ashy  
.....The Himalayan Tree-pie.

B. Tail entirely black.....The Black-browed Tree-pie.

We are not satisfied as to which race of *Dendrocitta rufa* is found in our area. Our specimens appear to be too light for the Bengal Tree-pie and may prove to belong to the typical race. More specimens will have to be collected before this can be decided. We provisionally place it as the Bengal Tree-pie as, according to the distribution of these two races, this is the one to which it should belong.

### 9. The Bengai Tree-pie.

*Dendrocitta rufa vagabunda* (Latham)

*Field identification*—A rufous Magpie with dark sooty-brown head, neck and breast; greyish-white and brown wings and a black tipped grey, graduated tail. Seen in pairs and parties in gardens or open country.

*Description*—Length 18 inches, tail about 10 inches. Head, neck and breast dark sooty-brown; remainder of plumage rufous-fulvous, richer on the back. A large patch of silvery-grey on the closed wing and the tail grey, broadly tipped with black. Sexes alike.

Iris reddish-brown, bill dark slaty horn-colour, albescent at base, legs dark brown.

*Distribution*.—*In our area*—Only found in the plains, not ascending the hills at all so far as we know.

*Outside our area*.—"Northern India from Garhwal to Eastern Assam, Behar, U. Provinces, Bengal and Manipur." [S. Baker].

*Habits, etc*—A common bird in the plains, especially near villages and in the tea gardens. They go about in pairs or small parties, hunting the trees for insects, fruit, birds' eggs, etc. They come readily into verandahs in their search for food, hanging on to the bamboos with their claws, exploring any holes in beams for Carpenter bees (*Xylocops spp.*), etc. Some of their food such as mice, snakes, etc., they obtain on the ground but most of it is found on trees. Mason [*Food of Birds in India, Memoirs Dept. Agricult. in India, Ent. Series, Vol. III, Jan'y. 1912*] mentions a case of a Tree-pie entering a room to get at a lizard which it had seen through a window. After finding it could not get at

it through the glass, it entered by the door, captured the lizard and took it outside where it ate it. It is, to a large extent, a vegetable feeder, taking both wild and cultivated fruit; it is also a ruthless destroyer of birds' eggs. We have seen it tip out eggs which it could not get at otherwise and then descend to the ground and sup up the yolk amongst the broken shell. It also eats young birds. We have often seen it being chased by Doves, Orioles, etc. when too near the proximity of their nests.

It has quite a large repertoire of notes, some pleasant and others certainly far from melodious; the most usual one heard is *Kokli, Kokli*. Apparently they don't bear captivity well, as none lived for more than a year and a half in the Calcutta Zoo. This is rather extraordinary, as they are common in a wild state there and the Yellow-billed Blue Magpie, a bird of a cool climate, lived in the Zoo for three years.

In the Duars they breed in May and June. The nest is made of twigs, roots, etc. interwoven and lined with roots, etc. and commonly placed in a fork on the shade trees in the tea, on trees near villages or in bungalow compounds. They lay 3 to 5 eggs of two types, one palish green blotched and spotted with grey-brown, the other pale reddish-white or salmon with blotches of reddish and dark brown and underlying ones of lilac and neutral tint. They measure about 1.17 by .87 inches.

#### 10. The Himalayan Tree-pie.

*Dendrocitta formosae himalayensis* (Blyth)

[ With a coloured plate ]

*Field identification.*—A greyish looking Tree-pie when seen flying or in the forest, with a brown throat and small patch of chestnut covering the root of the tail. It is slightly smaller than the Bengal Tree-pie and larger than the next species. Generally found in thick or thin forest, seldom straying from them. They are noisy birds and usually keep to trees. Found from the plains up to 7,000 ft.

*Description.*—Length 16 inches, tail 9 inches. Forehead in front of and just above eye black, crown

of head and upper back ashy; the rest of the back is brownish-buff with the rump and upper tail-coverts light ashy. The sides of the head, chin and throat sooty-brown fading into ashy on the rest of the lower plumage; under tail-coverts chestnut. The wings are black with a small white patch formed by the bases of most of the pinions. Sexes alike.

Iris reddish-brown, bill and legs black.

*Distribution.*—*In our area*—Found well into the plains, O'Donel having seen it at Chilapata, in the Duars, some 20 miles from the hills. It ascends up to quite 7,000 ft. being common in and around Darjeeling. We have observed it right in the station at the foot of Observatory Hill.

*Outside our area.*—"Throughout the Himalayas from Sutlej Valley, through Assam and throughout the Burmese hills as far as, but not including, Tenasserim" [*S. Baker*].

*Habits, etc.*—Seen in pairs or small parties keeping mostly to either heavy or thin forest areas. Occasionally they wander from these and have been seen in the compound of a tea garden bungalow. They are noisy birds and have the same undulating flight of other Magpies. Usually they keep to trees but sometimes descend to the ground. Jerdon saw one eating grain there. Their food consists of fruit, insects, birds' eggs and probably young birds as well.

They thrive well in captivity; a bird was still living in the Calcutta Zoo after 6 years. They were found to remain shy and untameable even after years of captivity.

They breed from April to June all over their area. O'Donel found the nest, in the Duars, in May, on a tree on the outskirts of the forest. The nest is similar to that of the Bengal Tree-pie and placed in trees and bushes, sometimes quite low down. The eggs, usually 3 or 4 in number but sometimes 5, have a ground colour sometimes pale stone or pale cream or else pale reddish; the blotches are reddish and deep brown, pale sienna and grey-brown. They are more richly coloured than the eggs of the last species and measure about 1.14 by .85 inches.

## 11. The Black-browed Tree-pie.

*Dendrocitta frontalis* (McClell.)

*Field identification.*—A rare bird, smaller than the other Tree-pies, with a tail long in proportion and easily distinguished from the Himalayan Tree-pie by the very

strong contrast between the deep black of the neck and ashy-grey of the breast, also by the greater amount of chestnut on the lower plumage instead of the small patch covering the base of the tail of the previous bird. It is a bird of heavy forest and seen in small parties. With us it is not likely to be found below 3,000 ft.

*Description.*—Length 15 inches, tail up to 10 inches. The fore part of the head straight down to the fore-neck, wings, except most of the coverts, which are grey, and tail black; nape, neck, upper back, sides of neck, breast and upper abdomen light grey; the rest of the upper and lower plumage chestnut. Sexes alike.

Iris red-brown; bill and legs black.

*Distribution.*—*In our area*—Jerdon says he found it near Darjeeling between 3,000 and 5,000 ft. and also gives it from Sikkim. Stevens never came across it and it is doubtful if the extensive area given by Jerdon is correct. The only local specimens we have seen are a mounted male in the Darjeeling Museum, which was collected at Lopchu at about 5,300 ft. elevation on the 4th March 1902 and one collected by Shaw near Sureil [5,200 ft.] on the 18th November 1921.

*Outside our area.*—“Himalayas from Eastern Nepal to the extreme East and South of Assam into the higher hills of Manipur, but apparently not into Lushai or Chin Hills” [S. Baker].

*Habits, etc.*—“It is essentially a bird of heavy evergreen forest, though it affects the more open glades on the outskirts of these. It goes about in small parties of half-a-dozen or so, and has very musical notes, rather like, yet easily distinguishable from, the call of its plains’ cousins. Like these birds also it has very discordant notes, though it is not nearly as noisy a bird. It does not seem to be a regular egg and young-bird thief, but doubtless despises neither if fate throws them in its way. It eats fruits, seeds and insects but chiefly the last. It is common between 4,000 and 7,000 feet and descends in the winter still lower, coming into the plains themselves in Eastern Assam but not elsewhere” [S. Baker F. B. I. 2nd ed., Vol. 1, p. 55.]. These remarks, at any rate as to it being a common bird, cannot refer to our area.

A specimen lived, in the Calcutta Zoo, for upwards of four years.

The nest is like that of the Himalayan Tree-pie but neater and more compact. Stuart Baker says they often build

low down, sometimes even in high weeds and small bushes. He gives the breeding season as from the end of April into July. The eggs are similar to, but handsomer and more profusely marked than, those of the previous species. They measure about  $1.05 \times .70$  inches.

*(To be continued)*

## A Hawk and a Houbara.

By Hugh Whistler, F. Z. S.

The members of the Darjeeling Natural History Society are so accustomed to think in terms of bears and tigers, trackless jungles and steep hillsides, when their interest in Natural History is leavened with a little sport, that a member from the other side of India is a little diffident about intruding his own experiences. But change is the source of appetite; and this, reinforced by the insatiable demands of our editor for copy, is my excuse for the following rough account of a day's hawking in 1915.

On the 21st February of that year I was on tour in the sub-division of Sirsa, close to Hissar in the Punjab, a locality well-known to all students of Hume's writings. Our camp was pitched between the villages of Odhan and Sahuwali and, as so often happens when the district is a good sporting one, the Deputy Commissioner and the Civil Vet. had contrived to arrange some work in the same neighbourhood. Now Hissar district, and especially its Sirsa sub-division, varies in popularity according to personal tastes. Those whose delight is in tennis and dancing, and the amenities of civilisation in general and the airs and graces of hill stations in particular, will tell you, with some justice be it admitted, that Hissar is a desert whose sandy floor is roasted with appalling suns and perpetually stirred with innumerable dust storms. But others remember the "Lakhi Dar"—that great herd of black buck that feed unceasingly on the plains of the Government Bir, the Chinkara that canter amongst the sand-dunes, the Sandgrouse and Bustard and the innumerable other objects for the gun and the diary. My predecessor clung to his post in Hissar for 12 years and then was only removed with difficulty.

Amongst its other attractions Hissar is one of the finest localities in the world for Falconers. The wide level plains with an abundance of game and a sparse desert flora provide ideal conditions for the sport of kings. I was a Falconer before I reached Hissar but there my enthusiasm reached such a pitch that it infected my friend the Vet. and also the city Thanadar and they both in due course started their own mews and Falconers. Out of a variety of quarry for our Falcons the

finest was the Houbara Bustard, and this form of hawking gave us the best sport, combining the thrill of rousing gallops with the interest and the science of difficult training.

I forget the official duties which served as the excuse for the Vet's presence at our camp. The real reason lay in the fact that he had just purchased a very nice young Peregrine Falcon—a *chuz Bheyri* in the language of the Panjabi Falconer—which he was anxious to break in to Houbara if possible before the season ended. Close to our camp was a patch of sand-dunes between some miles of cultivation and level desert, and Bustard were reported to be present in surroundings that thus afforded them ideal conditions of food and freedom from disturbance. So early in the morning in question we started out with eager anticipations.

We formed a motley and somewhat mediæval cavalcade. In addition to the Deputy Commissioner, the Vet. and myself on horseback, we had the usual following of mounted officials, some in semi-European dress, the majority in the flowing robes and turbans of no particular date. The Thanadar was in full uniform on his overfed and under-exercised official charger. Some of the Zaildars had decent country ponies but others were as usual deplorably mounted, from an English standard, whilst on foot trudged the two head Falconers, Elahi Bukhsh and Umar Khan, each with a Peregrine on their right wrist. The former carried the young Falcon whose initiation was the chief object of the day's sport, a satellite carried the badge on which were tied several other Falcons all hooded, for we were prepared, if Bustard could not be found, to kill a few Partridges or other quarry.

We were not long in doubt whether the sand-dunes held Houbara as reported. As soon as we reached them and sorted ourselves and our following into an irregular line with a falconer in each half, two or three Houbara got up very wild and settled again further on, while the three-toed foot prints could be seen everywhere on the fine slopes of sand. With every nerve on the *qui-vive* we slowly advanced across the sandhills. Orders had already been given that Elahi Bukhsh's Falcon was to take precedence and that no other bird was to be slipped before she had had her chance.

In this form of Falconry we were accustomed to fly our birds from what is known as the standing gait: that is to say, she was not to be thrown off until the quarry was actually flushed. So Elahi Bukhsh undid the leash from the jesses and held the Falcon by them alone, gripped in the fist on which she sat, while he was on the alert to pull off the hood at the very moment when the sight of the quarry should be the signal for throwing off the Falcon.

We had gone but a short way further when a Houbara rose in reasonable distance but unfortunately Elahi Bukhsh did not see it in time to fly his Falcon. We moved on over the sandhills and at length found the first birds we had seen but they were far too shy to let us get anywhere near them. By this time we had covered practically all the suitable ground and in somewhat forlorn fashion—rendered more pointed by the Vet's address to Elahi Bukhsh on the text of those who will not when they can—we approached the last area of suitable ground.

At this moment a Houbara sprang into the air from where it had been squatting on the bare sand. It was within range, had the Falcon been a fully trained bird, but the distance was rather great for a beginner.

However Elahi Bukhsh had been fired by the recent sermon. He pulled off the hood in a twinkling by its top-knot and flung the Falcon from his fist. Without hesitation she started in a flash for the Bustard, a fast flying female with a long start, and we all settled down to ride. In the first quarter mile I realised that the field were going to be out of it. The going was very heavy on the soft, loose, sandy soil, with a sprinkling of standing barley crops and gram: under such conditions the Vet's grey roan was clearly not up to his rider's burly weight. The Deputy Commissioner's mount was a wild, excited chestnut, which as it turned out was seedy and unable to keep the pace at all, whilst of our numerous tail of mounted officials were some without heart and all mindful of etiquette and the unseemliness of outstripping the Deputy Commissioner. Luckily my old Waler was a splendid horse to hawks, so I sat down and rode him for all I was worth, knowing full well that if no one kept up with the flight the Falcon would probably be lost.

Both birds were already a long way ahead and growing more and more difficult to see against the sky. I had just lost sight of them when luckily the Houbara turned left handed, closely followed by the Falcon, and I caught sight of them both again, high up in the air. In the distance birds are far more conspicuous from a flank than from the rear, so shouting and waving an arm I turned left handed myself and galloped with all my might, trusting to luck that there were no rat holes under the crops through which I was riding. The old horse went magnificently and from that moment I saw the whole flight. From the moment of the turn the Falcon kept on close terms with its quarry. Both birds flew at a great height, and as the flight continued, both birds continually turned and twisted—though keeping the same general direction—as the Falcon endeavoured to bind and the Bustard jinked to avoid it. Once a puff of feathers floated into the air, and probably the Bustard was touched several times.

The birds were flying in a great semi-circle and must have travelled at least three miles, but I rode on an inner semi-circle and so saved some of the distance.

Suddenly the end came. The Falcon made a great effort and bound to the Bustard. Both birds fell out of the sky. Twisting and locked together they came to earth somewhere in the sea of crops ahead of me. I looked round and halloed for all I was worth but answer came there none. The flight and the kill were mine alone, and the only person who heard my halloos was a Zamindar working in a field, who doubtless wondered what all the pother was about. Unfortunately the Zamindar's dog paid more heed than his master and rushed baying and barking towards me. It was an unwe'come addition to the hunt, for I was in a sufficiently awkward situation, with no one to hold my excited horse, without the further embarrassment of a large and savage dog. A mistake in taking up the young and untried Falcon off its first kill might easily result in its loss.

I rode slowly towards the site of the kill, keeping my eyes open to see the birds in the shallow barley, when a large Falcon suddenly caught my eye flying low over the ground close to where the kill should be. It looked at this distance like a Peregrine, so fearing

that the Houbara had escaped after all, I took out my lure and whirled it round my head, calling in the appropriate manner and following in the direction the bird had flown. Before I had gone far, a terrific screaming started and back came the Falcon mobbing violently an Eagle which was flying straight in the original direction of the kill. Then I saw that the Falcon was no Peregrine but a Luggar.

Realising that the Eagle was making for the kill, I mounted and rode as hard as I could in the same direction and arrived in time to make the Eagle sheer off. There was our Peregrine in the barley, taking her pleasure on the Houbara, which was already dead; apprehensively she eyed the Eagle, which was circling round overhead, only kept off by my presence.

It was an embarrassing moment. The Eagle above settled on a neighbouring tree. The Pi-dog below clung to me like a leech, and any moment the Peregrine might decide to seek safety in flight. So abandoning my horse and throwing a c'od at the Pi-dog, I crept up and caught hold of the Peregrine's jesses before she had made up her mind to leave the warm tasty flesh.

It was only just in time. A moment later the rest of the cavalcade, who had espied my empty horse, came bucketting up with a clatter that stampeded old "Pollux" to the horizon (luckily he was caught with no damage but a broken rein). As they arrived I heard the Vet. shout out that if the Falcon had killed after such a flight she would be priceless.

The unmounted Falconers took longer to come up with us again, but at last Elahi Bukhsh came panting along. Proudly I placed the Peregrine on his wrist, expecting a meed of praise for my skill in saving it from peril of Luggar and Eagle and Pi-dog. But his only comment was to complain that I had let it eat too much of the Bustard's fat--and most of that was eaten before I got there!

Notes on the Natural History and Shikar of Indian Deer.

BY

Colonel H. S. Wood, I. M. S.

(Continued from page 67)

5. The Swamp Deer

The Nepalese name for this deer is *Barasingha*, but I believe this name is also used for the Kashmir Stag.

I have only observed this animal in Assam, so that my remarks only apply to that Province. It is found in other parts of India, *i. e.*, the Central Provinces, at the foot of the Siwaliks in the Doon, and in the Dooars. Years ago it was found in great numbers throughout the plains of Assam but owing to the merciless slaughter there are very few left. The parts of Assam where I have seen this deer, in comparatively large numbers, are: 1. At Lanka, Nongong district, in all the country lying to the right of the Railway line going to Gauhatti; 2. at Gohpur, Darrang district, between this district and Lakhimpur.

It is rather a stupid deer, not at all shy, which has contributed greatly to its diminution. The colour is almost a chestnut, turning darker with age. The does are lighter in colour and the young spotted. Curiously, in some stags, this dappling persists until the animal is almost mature. It is a very handsome animal and it is a grand sight, in the early morning or before sundown, to see one of these animals standing in the rich grass of a dried up *bheel*, at the edge of the heavy grass jungle, its hide with a sheen on it like a race horse and its beautiful horns and carriage. The hair is not so coarse as that of the Sambhur or Manipur Deer. The neck is long and the ears well developed.

I have found Swamp Deer in all kinds of jungle. I have put them up in heavy *null* and *elora*, in sungrass and in sparse forest; but the place they like best is *bheel* surrounded with heavy reed and grass jungle. In winter the *bheels* dry up and produce a rich crop of *dhoob* grass and wild rose, which the deer love.

They are sociable animals and feed with Rhino and wild Buffalo in such places and I have seen them with Sambhur and Hog Deer. They never come into cultivation, except where rice fields come almost up to the heavy jungle. At Lanka there is a good deal of a kind of screw pine which, after the forest fires, sprout young leaves from the apparently charred stems, and the deer feed on these.

It is only possible to stalk them, on foot, after the jungle fires: it is hard and hot work and, after a hunt, one emerges with torn clothes and blackened like a chimney-sweep. Unfortunately, during the winter months and early spring, the horns are in the velvet, and it is very disappointing, after hard work, to bag a stag and find the horns no use as a trophy. Elephants are generally used to get through the heavy stuff on to the *bheels*; then one can get down, walk round the *bheels* and look out, then on to the next and so on. I fancy a large number are destroyed by Tiger, as I have always come on their tracks in these *bheels*. The Tiger lies in wait in the heavy jungle at the edge of the *bheels* for his prey. I will not bore my readers with individual stalks.

I have never heard the call of a Swamp Deer. As a rule, when they are found in herds, these consist of does and fawns, the stag secreting himself somewhere. At Lanka, one day, I saw 14 does altogether, and they let my elephant come up quite close to them before they bolted.

The horns are very handsome, and I suppose a Swamp Deer's head is the commonest trophy one sees in a villager's hut, in a forest office, in the houses of officials and tea planters and sometimes in dak bungalows. In the heavy floods natives go after them in dug-outs and kill a lot. The total extinction of the Swamp Deer, as far as Assam is concerned, is a matter of time. I believe a sanctuary for this deer has been established in the Nowgong district, not far from Lanka, and this is a good move. The game laws we have need revision and supervision.

Years ago Lanka held a great number of Swamp Deer but when I last visited it I hardly saw one. Can this be wondered at, when all the villagers, pensioned Gurkhas and tea garden coolies possessed guns? The village carpenter, the subordinate Forest Officer, were

also armed. The Manzedar possessed an elephant and guns and I expect he accounted for a good many out of season. To a villager a Swamp Deer is worth about Rs. 25 and, if he is caught, he is hauled up before the local magistrate and fined a paltry Rs. 5, which leaves him with a considerable margin of profit. To my mind there is no use entrusting the preservation of game nor the enforcement of game laws to a native Forest subordinate, as many of them are open to bribery and corruption. I had once the good fortune to get evidence of corruption against one of them and he was dismissed. This man used to allow his *bhai*, who was an elephant mahout in the employ of the railway, to shoot in the forest reserve so long as he was given a share of the venison and proceeds of the sale of the animal. I once met a retired Indian officer, who was spending his last days in a Garkhali *Khotti*. He was armed with a Martini Henry rifle, presented to him on retirement. I asked him what he shot and he said "everything, including does and fawns". Is it then a wonder that, year by year, game is decreasing in India? What is required to put matters right is the following:—

1. Heavy fines or imprisonment for infringing game laws.
2. Discrimination in issuing game licenses and, if issued for crop protection, a gun with a short barrel should be issued.
3. Formation of more sanctuaries.
4. Total prohibition of shooting any animal that has diminished in numbers in any particular locality or Province.
5. Preventing villagers from hunting deer in the heavy floods from dug-outs.
6. Efficient supervision by a European. The European Forest Officer of to-day, although interested in the matter, cannot control it. His office work and files have increased so much that he can hardly leave his desk for touring purposes. In Africa and America we have European supervision: why not in India?

In conclusion I would recommend that the whole matter be taken up by a committee of sportsmen and forest officers and represented to Government.

I think every sportsman and naturalist discountenances the wholesale slaughter of duck, sand grouse, etc., that takes place in some of the Native States, and can't understand how high officials consent to take part in such slaughtering shoots. I know of one party of so-called sportsmen who visited a *bheel* in Assam swarming with duck. They shot so many that part of the bag had to be buried!!!

[The Swamp Deer or Barasingha (*Rucervus duvaucelli*, Cuvier) is found from the West of the Jumna along the base of the Himalayas eastwards to Assam throughout that Province, in parts of Bengal, and is also recorded from Upper Sind; it is also found in parts of the Central Provinces.

Blinford says the name Swamp Deer is inappropriate but Dunbar Brander points out that most of these deer he saw in the United Provinces 'were standing in water in long grass, and they seemed to spend their whole time in localities of this nature, only emerging at dusk to wade up to their bellies into deeper water in order to graze off water weeds'. In the Central Provinces, however, according to the same writer, "*The sine qua non* for this animal's requirements are large, grassy plains or maidans on which he can graze. He lives in or along the edge of these plains, and only penetrates the jungle-clad hills to a short distance". It is curious to note that the hoofs of these animals are different; those inhabiting the swamp are larger, are more spongy and inclined to splay, whereas those that live on dry land have the hoof hard. Forsyth concluded that the distribution of this deer in the Central Provinces coincided with that of the Sal tree and that even an isolated patch of Sal forest contained this deer. Dunbar Brander, however, says this is not the case, as it also occurs "in ordinary mixed forest".

The author of this paper remarks that the spots "persist until the animal is almost mature." Dunbar Brander says about this "There is a marked seasonal change in the colour both in this animal and the sambar. As the hot weather advances they become much lighter, the stags being reddish brown and the does yellowish brown. At this season also they develop spots. These spots are arranged in precisely the same manner as those of the Chital; they are not white, but the hair is merely somewhat lighter in colour".

The number of points to the horns varies to a very large extent. Blanford gives the following description of the horns:—"Horns smooth, with a brow-tine nearly at right angles to the beam, frequently bearing smaller points on its upper surface; spots in the axils are rare. Above the brow-tine the beam is unbranched for more than half its length; it then divides into two, each branch dividing again. In the normal adult horn...the inner branch bears two tines, the outer three, but this number is often exceeded." Dunbar Brander says "Heads having eighteen and twenty points have been procured, but ten to fourteen is the usual number carried by a mature stag." Blyth figures a pair of horns with more than twenty points

Our author says that during the winter months and in early spring the horns are in the velvet; Lydekker writing of Assam agrees with this but it appears not to be the case in the Central Provinces, where, according to Dunbar Brander, the horns are not shed till April and begin to grow then "shortly before, or at the commencement of the rains.....the horns are clear by the end of October".

With regard to the rut, the same author says it "is an ill-defined period, as I have seen a stag jump a hind in December and also in March; but the chief breeding period is between December 15 and January 15, and the great mass of fawn are born in the hot weather, shortly before the rains."

Unlike the Sambar, the Swamp Deer fights for the hinds

Dunbar Brander says "Barasingha are noisy animals, and on being alarmed scream loudly, the whole herd, and even other adjacent ones, taking up the chorus; the noise is a shrill 'bray' and they will utter this while trotting away from the cause of alarm." They have also "a death call, which they utter more frequently than in the case of other animals, and although they seldom give vent to this when shot, they often do so when seized by a tiger or leopard.....The sound defies description, but it is in the nature of a prolonged and agonizing scream". The roaring of the stags is described by the same author as "a loud, penetrating 'Ring-Hon Ring-Hon', which is repeated in gradually decreasing volume.....but in addition to this call there is an accompanying drone."

Our author mentions that in Assam where herds are seen these are mostly hinds and fawns. In the Central Provinces, however, Dunbar Brander says that after the rut "big master stags soon join up into small herds of eight or ten animals, all of about the same size." He also says "A big stag will collect as many as thirty hinds"

Their sense of sight and hearing is only moderate but their sense of smell is good and Dunbar Brander has "known them wind a man at 400 yards"

This observer found that after a mile of hard riding "a good pony rapidly gets on terms with a barasingha stag."

A good average stag from the Central Provinces has the following dimensions, according to Dunbar Brander:—  
"Taking the measurements from the tip of the tail:

To the rump	9 in.
To the withers	4 ft. 6 in.
To a point between the horns	6 ft. 3 in.
To the tip of the nose	7 ft. 4½ in.
Girth behind shoulder	4 ft. 4 in.
Height	3 ft 11 in.
The horns: Right	33 in. and 7 points.
Left	32 in. and 6 points.
Girth	5½ in. above brow tine "

This stag weighed 370 lbs. Blandford, quoting from the "Asian", April 3rd, 1891, says, "Large stags in Cooch Behar are said to have weighed..... 460 to 570 lbs." Dunbar Brander remarks that Cooch Behar "seems to have been a wonderful place for producing remarkable animals." He gives "420 lbs. as an extreme weight." Rowland Ward's record is:—

42½ in.	Length on outside curve.
6½ in.	Circumference.
35 in.	Tip to tip.
36-5/8 in.	Widest inside.
10 Points.	

This is a stag shot in the Central Provinces and owned and measured by A. G. Scott.

In the Duars the Swamp Deer is becoming very scarce and we are very pleased to see that in the revised game laws they are now protected throughout the year.

We regret we have been unable to secure a photograph of this deer or of any of the subsequent species to illustrate these articles. *Editor*]

“Taking the gun for a walk”

Those of my readers who have worked, or are working, in places situated far from centres of amusement, or even from their nearest neighbours, will be well aware that the question of how to kill time on Sunday is one that often takes some solving. On work days time passes all too quickly, and after an early dinner bed is a welcome spot. Circumstances of course make all the difference and if one has a car and roads fit to drive over, well then, one isn't far from one's nearest neighbour. But when such roads as exist are indifferent during the driest months, and almost impassable for the rest of the year, and one has no car, means of killing time on the Sabbath have perforce to be sought nearer home.

Tastes differ considerably, but, to simplify matters, it is advisable to try and make the most of such opportunity for amusement as local conditions offer, and to cut one's coat according to one's cloth. If unfortunate enough to be employed on Rubber in this year of grace 1931, and consequently on half pay, the necessity for doing so is even more obvious. Two methods that I have used successfully are the one I call “Taking the gun for a walk” and the other is rough fishing, and I shall now endeavour to give my readers an idea of the first.

To start at the beginning then, I first heard the expression “Taking the gun for a walk” when soldiering in Salonika during the last months of the War. Our aerodrome was situated within a mile of a small lake surrounded by a considerable marsh and by November there were large numbers of Duck, Teal and Geese on this spot and quite a lot of Snipe as well. The sight of these birds made me long for a gun and by dint of searching and pestering I managed to buy a D. B. Hammer 12 bore with no maker's name but in perfect condition for £3 from a friend who had just picked up a very nice Hammerless cheap and was very bucked with his bargain. Armed with this and the necessary ammunition I used to push off through the snow at dawn, clad in what I vainly hoped would keep the Vardar gale—you can't call it a wind—from blowing clean through me, to try and circumvent some of the numerous duck and geese which were about.

This afforded me much healthy exercise, the birds considerable amusement, and the ammunition dealer big profits, so was really beneficial all round. It was on the 5th morning that as I was proceeding to the lake gun in hand, having bagged nix for umpteen rounds fired at ranges between 45 and 80 yards on the previous days, that a sircistic pal looked at me with a smile and said "Hallo P., taking the gun for a walk again this morning?" On that particular day he happened to be wrong, as I got a foolish goose that passed me at about 50 yds. and a little Bustard that I put up in tussocky grass on the banks of a stream. I was congratulated on having got a goose but jeered at for having shot what, according to a member of the Mess who claimed to know European birds thoroughly, was a 'kind of Bittern'. Later a fellow Nimrod shot a Bittern and our local ornithologist learnedly suggested that it wasn't a real Woodcock but no doubt of the same family, so you can guess that ornithology was not his *forte* (however, I digress, but you now understand what the expression "Taking the gun for a walk" implies

Before attempting to describe a successful Sunday spent in doing so, I will give the reader some idea of the country in the vicinity of the spot from which this is written. The rubber estate on which I am employed is situated 32 miles from the sea, on the W. coast of South India, in Travancore State. The country consists of low hill ranges averaging about 450' elevation, and with the ridges and valleys running mostly S. E. to N. W. To the W. of the estate the country is thickly populated and completely under cultivation, but the country to the N., E. and S. is, with the exception of the valley bottoms which even in Government Reserve Forest are under paddy, covered by deciduous forest of fine growth. In such deciduous forest are found strange little hollows growing evergreen trees, usually not more than an acre or so in extent, and also patches covered with *Eta*, a species of Bamboo growing to about 20' in height and forming a dense and difficult cover to get about in. The undergrowth in the deciduous forest is in this vicinity entirely coarse grass, growing to 10' in height and quite impenetrable until after the forest fires, which are an annual occurrence, have burnt it clean in November-December. Game in the immediate neighbourhood is scarce, the larger animals, excepting wild pig, de-

aidedly so, and feathered game is by no means plentiful. Of the last the Grey Jungle-Fowl and the local subspecies of Spur-Fowl (*G. s. stewarti*) are the most interesting, whilst luck sometimes favours the shikari with a chance at (*C. aenea*) or Green Pigeons and of course at the right season, February and March, the paddy fields are worth visiting in search of Snipe. Except on the rare occasions when I have found a fruit tree on which members of the pigeon family were feeding, I have not had a chance of anything like sport with these birds here, so we can omit them from the list of local sporting birds. This leaves us the Jungle and Spur-Fowl on the dry, and Snipe, on the wet lands. Of the first two the Jungle-Fowl is much the finer bird in every respect, though he would be even better if he could be induced to take to his wings more readily in effecting his escape from danger. Again when tread he takes an almost unbelievable amount of moving, often merely ducking his head when a stone passes close to where he is sitting. But one forgets all this when an old cock is seen, within range, streaking downhill with half closed wings and his tail feathers quivering behind him. His straw-coloured neck and grey body seem to emphasise the redness of his comb and the metallic purple gloss on his tail, and he is a truly fine sight. The hen, owing to her quieter colouring, is not so spectacular but is every bit as fine a flier and carries an equal quantity of shot with the same *non chalance*. There are easier birds to kill than *G. sonnerati*, and a good hard hitting gun using No. 6 or 4 shot has to be held straight and well forward to accomplish this. A "runner" is seldom bagged unless a staunch dog is put on to it quick. I must let this brief description of *G. sonnerati* suffice to introduce him to my readers. The next bird, *G. s. stewarti*, I have found is easily flushed for the first time but such a perfect adept at the use of cover that it invariably manages to fly hidden from the sight of the gunner. A chortling cackle and a whirr behind a screen of *Eta* is more often than not the only intimation one has of its being on the move. It seems instinctively to know where danger lies and flies in such a way as to escape it. I noticed from long observation that it invariably flew back in the direction from which its disturber, dog or man, was coming, and have bagged one or two by

purposely letting the dogs work ahead of me. At the same time, when trying this wheeze, I lost more than I got by their changing their tactics and flying forward. At last I give it up and go as I please, leaving it to my dog to do his best to send the bird within range, and long and hard work has made him an adept at this. Using all his brain and working hard, he, the dog, has managed to help me bag a Spur-Fowl, at long intervals, and has allowed me to have many snaps at bright red feathered objects flashing at high speed across open patches a few feet wide in the heavy *Eta*. Some few snaps have been successful but generally a clean miss, yards behind, has been the rule. If flushed a second time, not a difficult matter with good dog, the bird flies just skimming the tops of the lower growing *Eta* for a few yards and drops like a stone into cover again. After the second time it usually flies up into the *Eta* and sits there, and the barking of a dog doesn't make it do more than walk a foot or two up the stem on which it perched and admire the dog. For the table this bird is the better of the two, though both require to be cooked by one who understands cooking to make the most of them. With such birds inhabiting the type of jungle already described, the reader will realize, that, to obtain any sort of sport, a good dog or dogs are a *sine qua non*. I am fortunate in being the possessor of one such dog of a breed rarely used and which most men who have not seen the dog at work are inclined to consider absolutely unsuited for the purpose. This is a pedigreed Airedale and as a rough shooting dog I ask no better. I am not for a moment attempting to compare him with a gun dog such as the Spaniel, Retriever, Setter, etc., but he does the work, if not as well, at least as keenly, and has points in his favour which some of the aforementioned breeds lack. I have had four of the breed now and if I had to replace my present pair it would be with a pair of the same breed. I have heard the Airedale much maligned by such as had no firsthand knowledge of the breed and take this opportunity of clearing his reputation. Uncertain tempered, is what his enemies point out as his main vice. If resenting handling by any but his own master is "uncertain tempered", then he is obsessed with such a vice. From an intimate knowledge of the breed I can vouch for the following being a fairly accurate summary of the Airedale's chief

characteristics. He is essentially a one man dog, giving his whole unqualified affection to his master, and to him only, tolerating all his master's friends but none that he considers enemies. If well trained he is obedience personified and obeys his master's orders unhesitatingly, even when doubting their wisdom. He has an exceedingly retentive memory and as fine a brain as any dog there is, and what is more, knows how and likes, to use it. He is a valuable house dog, though, owing to breeders having aimed at appearance instead of character, the present dog does not use his teeth as he should, so that his bark is worse than his bite; in fact my dogs have never bitten except under circumstances that would make even a saint bite. Extremely clean in their habits and with perfect manners, they are a pleasure as house dogs. In the field they are dead keen but usually prefer big to small game to chase. They have indifferent noses but make up what they lack in that organ in brain and perseverance. They will work till they drop and even in this enervating climate their energy is remarkable. Given a stream at intervals in which to immerse their bodies, they can keep going till drought or darkness drives the sportsman home. The mother of the dog I have at present was nearly as good a retriever as her son is and I account for the difference between them as less practice in the case of the mother, who was killed by a Russel's Viper, before she had had the practice my present dog has had. The temperature at the time of year that this article describes averages about 82 degrees in the shade. Having now roughly described the country, the quarry and the dogs employed in the pursuit of it, the reader must try and accompany me mentally, from what follows, in a Sunday forenoon spent in "taking the gun for a walk."

As the temperature rises with the sun, we will have an early *chota* so as to leave the bungalow at 7 a. m. sharp. The gun is taken from its case and wiped clean of surplus oil, whilst doing which the dogs clamber all over me, as they are as keen, or keener, for an outing with the object of shooting. As the dogs have not worked with Indians and don't understand them, I always go alone and so have a coat that allows of two Jung'e Fowl or Spur-Fowl or 20 Snipe being carried in the pockets, leaving both arms free.

This is simply a comfortable fitting military tunic with the sleeves removed at the arm-pits and the lower pockets enlarged to accommodate the birds mentioned. Cartridges are conveniently carried in a Haversack slung across the body. We will take some No. 8 with us, as there is a long narrow paddy field which we will look up on our round and which often holds a dozen or more Snipe. For the rest 12 No. 6 will be more than we are likely to use. It is a clear, cloudless morning with a pleasant breeze from the East, which is welcome, as the first  $1\frac{1}{2}$  miles being through the 1928 rubber clearing, little shade is available. The Forest yonder is what we are going to work through and we will start at that hollow which, as you see, is covered with dense *Eta*. Thanks however to villagers removing it for fencing and building purposes, there is an open patch of about 30 yards square in the centre of it, to which an easy path has been cut. The entrance to the path is just by that big Teak, now leafless, and as at this hour Jungle-Fowl may be met on the edge of the jungle I loud up. Mark! *Ka-Kakung, Kakung, Ka-Kakung, Kakung*; either a Jungle-Fowl has been frightened by some animal or it is a vanquished cock who is expressing his apologies to his victor. Buddha, the dog, has also heard it and is trying to locate the sound, which seems to come from about 20 yards up the valley from where we will stand. This is the spot and you will see that, if they don't escape by running up the valley and then flying still further up, they usually come straight down the centre, and then turn right or left to get into the *Eta*, which widens out again further down the valley. Buddha has not entered the *Eta* but is going uphill through the burnt grass to the right, so as to get above the bird. Have patience, Buddha is heavy, and slow in consequence; but sure. *Kak kak kak kak kak*, there goes an old cock and uphill, the brute, but *kak kak kak* whirr, accompanied by a couple of sharp reverberating barks—here comes the hen. Bang, miss, Bang, and off she goes, badly hit, into the *Eta* lower down. We will look her up later but there is no decent position for a gun and the chances of a shot are slender. *Kak kak kak kak*; see him, he has crossed over the right and up the hill and is probably the bird I missed the Sunday before last. *Wew wew wew kak kak kak* whirr, ah! that

did it: here he comes and moving too, so well forrard, bang, crash. If Buddha has heard the crash, good and well; if not, patience till I direct him. Yes, he has heard; that is him crashing over in the heavy *Eta*. He is there or thereabout now, so we shouldn't be long. Dash, he's past the spot; however, leave it to him. Yes, he's got it or he wouldn't come so slowly down the hill. Good old Buddha, good old man, bring it to master. Crack, crash, come on, old man. Ah! here he comes, good old fellow. No, he won't be patted by you, will you, old man? Only an old cock fit to admire and stew very slowly, after hanging for 24 hours in this climate. What, hot? wait a bit. We had better get out to the edge again and then there is just one spot that offers a chance of a snap if the gods are kind. Here we are, that open patch below that dark stemmed tree is the only spot that offers a chance of a shot. Buddha has gone down the hollow and will work upwards, crossing from side to side, as he remembers that birds seldom break downhill here. That hen appeared to droop into the *Eta* on this side of the hollow, but may have run on anywhere. That sounds as though he were on to a scent, so wait. No other birds in the patch obviously, for he has been all over it. As likely as not that hen is sitting doggo and smiling at him if the pain permits of smiling. I fear that's a lost bird and as it's 9.20 we will move out to the edge and smoke till the dog turns up. Taking his time? yes, but there's water in that hollow and he is doubtless lying in it up to his neck to cool down. Here he comes, and by Jove! if he hasn't the hen in his mouth. Yes, you may well look proud, good old fellow. The bird didn't look as hard hit as all that but the 2nd barrel got her from behind and *with* the feathers instead of against them, which makes a difference in a tough bird. We may as well move now and get on to the path that goes through the forest to the paddy field. The trees being bare of leaves, the forest is not at its coolest or best, by any means, but we will come to a hollow filled with evergreen trees, nearly all *Artocarpus hirsuta*, which may hold something, and if not, we will smoke while the dog has another bath. Here it is and we can stick to the path while the dog comes through the patch parallel to us. If a Jungle-Fowl is there, it will break out and cross to the left to get to the hollow covered with

*Eta* on that side. Hallo! *Whirr, wow: wow* there, I just caught a glimpse, by that cane frond, a Spur-Fowl. Buddha is coming towards where it went down, so we will move forward. Not there, move on then, it's a rotten spot to try for this bird. *Wow, whirr*, I didn't even see it. Now we will rest and smoke and give the dog time to cool himself in the water. Here he comes, so we will go on. What's exciting him now? he is after something, but it is only a common Pitta. This bird evidently smells gamey, as every dog I've had worked on their scent. There's another *Eta* patch worth trying before we reach the paddy land. This is it but one seldom gets any but long shots and those as the birds cross from one side of the ravine to the other. It is an isolated bit, so even Jungle-Fowl don't try to leave it altogether. We will stand here and watch for a chance. Buddha always works up one side, then across the top and down the other. He's going up on the left today and will come down by the right side. *Whirr, wow, bang*, missed clean, that was a cock Spur-Fowl, the hen looks much blacker. *Wow, whirr*, just a chance, bang. Can't say but I felt I was on it, so will mark the spot carefully. There is nothing more in here; the dog has been through it from end to end, so I'll try and put him on to the last bird. If I can throw a stone near the spot, he will do his best. Here, Buddha, seek. He's too much to the right. Buddha, there, old man! Yes, he's heard where the stone fell, and is getting nearer the spot now, so we won't do more. No, he's miles above the spot; *wow whirr bang*, yes, that got it clean this time. Buddha, there, old fellow, another stone should help, there. He's moving near the spot now and here he comes quietly, which means he is carrying it. It is a hen just nearing the moult and so looks rather shabby. Now we will try for Snipe and also a couple more spots that might hold fowl, and then home. We reach the field and as the birds invariably lie near the narrow part above that hut, we reload with 8 and walk up in that direction. There is nothing here, which either means they are not at home or else lying up in the last stretch of about 100 yards. There are some near here if the dog isn't mistaken *Tck, Tck Tck Tck*, bang, bang, got 1 out of the 5 that rose, and there they go down, opposite that tussock of tall grass. They are only a few yards ahead now. "Slowly, Buddha." *Tck, whirr, whirr*, bang, bang, nix,

and they are off down the field again: no, they are away to the far end and it is not worth walking up, as it takes us away from the direction we've to move in. There is a possibility of this last bit holding some. Yes! there goes, bang, dropped him, good dog, bring him to master. They are all Pintail, you will note; the Full are decidedly uncommon round here. This path brings us on to a Forest boundary and we can walk along that trying promising bits, *en route*, till we reach the Rubber again. Well, that is the lot, and there is a mile or more to the bungalow and it is now 12-30. Thirsty? well, we won't be long. It is a pity there aren't more Jungle-Fowl about and that the last bits only held Spur-Fowl, of which we only caught a glimpse of one, but just think what our bag would have been without the dog!! Verily, "taking the gun for a walk." The bungalow at last, and now for a cold tub and a long drink of beer and a rest before lunch. What? 2 p. m.? well, lunch will go well now, and a siesta after, and then, Sunday is pleasantly passed. Yes, Buddha? certainly you did it. A deep sigh of content. Is all Buddha designs to say in reply.

G. P.

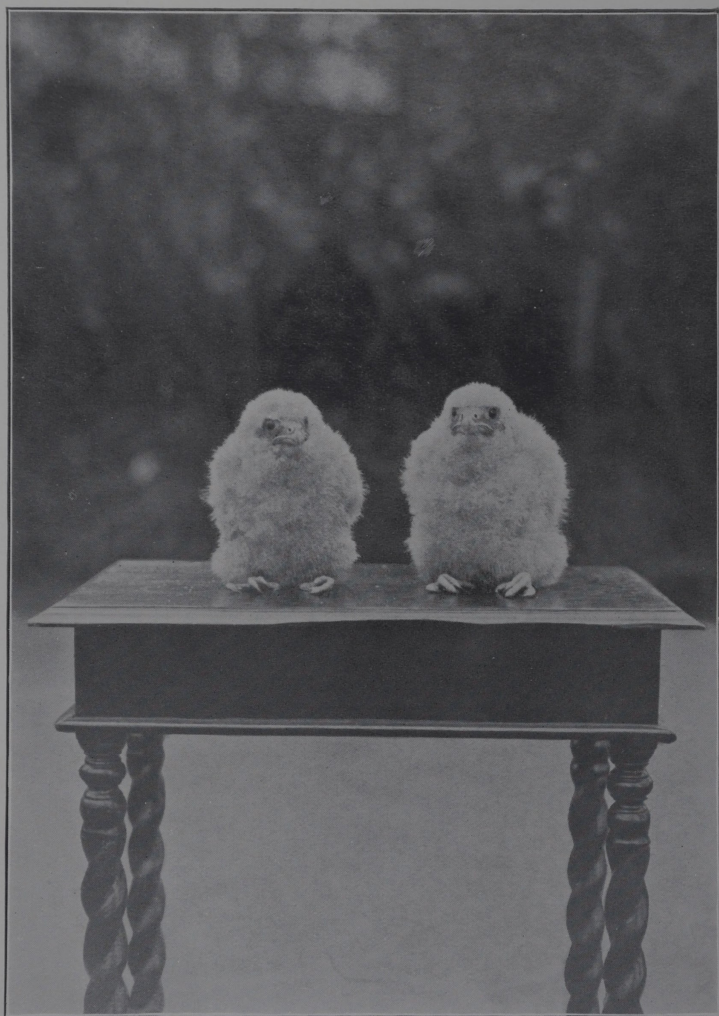
## The Indian Hobby.

*(Falco severus rufipedoides)**(With a plate)*

A peculiar call, difficult to describe, first attracted my attention to a pair of Indian Hobbies flying overhead. I had not heard a similar call before, while something in the flight, different to any other falcon, made me curious. At the time I happened to be near a solitary Chilauni tree (*Schima Wallichii*) which stood out in the open, only a few feet from a hut where a brood of chickens with their mother were feeding, quite regardless of any danger from the falcons flying overhead. As a rule the proximity of any of the hawk tribe is the moment for all members of the poultry yard to seek immediate protection in the closest cover. Therefore, the absolute indifference displayed by the chickens aroused my curiosity to the extent that I proceeded to question a member of the hut, at the same time telling him to fetch my gun, when I would shoot the falcons. To my surprise, he did not seem at all enthusiastic at my proposal, but pleaded that I would spare the birds, as he said that they never molested poultry, but on the contrary, protected his chickens from the attacks of kites. This was, in a way, quite true, as the falcons had a nest with nestlings, and dare any bird approach anywhere near the vicinity of their eyrie! While I was there a huge vulture flew by and was immediately chased by the falcons, who—if one is to judge from the hasty retreat of that vulture—apparently inspired terrific fear, as the vulture was big enough to deal with a dozen such diminutive opponents!

I was now very interested and soon discovered the reason for the sudden disappearance of practically all the Swallows, Swifts, Verditer Flycatchers and many other small birds which I had been so accustomed to see round about the bungalow. The man I questioned informed me that the falcons killed five to ten birds daily and that all their victims were taken in flight. This statement was confirmed by others, who had apparently been amusing themselves with careful observations of their so-called "chowkydars".

Thus, the damage done by the falcons made me feel justified in shooting them. I sent the male bird to the



YOUNG OF THE INDIAN HOBBY.  
*Falco severus rufipedoides* Hodgs.

Museum, but as the female was only winged I decided to keep and, if possible, tame her. She was very fierce and refused all food—in fact, became a veritable “hunger striker”. However, I eventually prevailed upon her good sense to accept sparrows, which were given to her intact, though she would not touch domestic delicacies of any description. Even so, her fierceness never abated and she died after about a fortnight in captivity.

A very conspicuous point about these birds is their noisiness, their call being a series of shrill, rapid high pitched intermittent notes; this call is repeated at frequent intervals both when perching and during flight. Although I have never seen these birds before, they seem to be well known to the local people, who call them “Moorilley Churra” (spelt phonetically).

The next thing was to secure the young birds, which were in a nest quite 50 feet up the tree. The nest, which was in a fork of the tree, was a very crude affair in the shape of a triangle, the sides being built up with twigs, while the centre was lined with moss and feathers, the latter probably from their victims which were devoured in the nest. The nest was almost flat and it was a wonder to me that the young did not tumble out—an object quite easy of accomplishment. There were only two youngsters, which looked like little balls of cream coloured fluff, quite a contrast to their handsome parents, which had very striking brownish black caps, demi-collars of an orange yellow with a predominating hue of brick red in the upper plumage, and a drab orange streaked with black in the lower plumage.

In captivity they were not interesting—had voracious appetites, greedily devouring all that was put before them. At first they were fed by hand on raw meat, but later, when they grew older, they would rather take the meat between their claws and tear at it; also, at this period of their existence, they commenced to show their defiant spirit by refusing to reciprocate any advances made by me. As I could not spend sufficient time with them, I eventually gave them to Mr. Hawes, to whom I am indebted for the information which follows. Mr. Hawes kept them in the same room occupied by a pair of baby minas, when the female hobby took charge of both minas, which she assiduously protected—rather a contrast to her fiery spirit as I knew it! The male proved by far the fiercer and untractable of the two, but

the female, in time, did get to recognise the hand which fed her, though the male always repelled with the utmost ferocity any attempts at friendship. The strange thing about these birds, which were confined to a large room, was their peculiar apathy to moving an inch unless they could help it, remaining all day on the same perch, placed in the room for that purpose, where they did a great deal of screeching, only walking down for their food when impelled by hunger.

Finally—a point which should serve to illustrate the power of instinct—both birds suddenly and without warning, took to flight and disappeared; nor did they seem to experience any difficulty in finding food, as, in manner born, they went about their hunting and were seen frequently enough by Mr. Hawes, though they would never venture near him.

All that now remains of these two little Furies is the photograph published herein, superscribed with their names, Alecto and Tisiphone, which they justly merited.

T. A. BALDRY.

Tamsong Tea Estate.

## Family III. Danaidæ.

- \*107. *Danais aglea melanooides* M. The Glassy Tiger  
 \*108. *Danais melaneus plateniston* Fruh. The Chocolate Tiger.  
 \*109. *Danais tytia tytia* Gray. The Chestnut Tiger.  
 \*110. *Danais limniace mutina* Fruh. The Blue Tiger.  
 \*111. *Danais melissa septentrionis* But. The Dark Blue Tiger.  
 \*112. *Danais pleurippus* L. The Common Tiger.  
 \*113. *Danais chrysippus* L. The Plain Tiger.  
 \*114. *Euplœa mulciber mulciber* Cr. The Striped Blue Crow.  
 115. *Euplœa alcatheæ doubledayi* Fd. The Striped Black Crow.  
 \*116. *Euplœa diocletiana ramsayi* M. The Magpie Crow.  
 117. *Euplœa klugii kollari* Fd. The King Crow.  
 \*118. *Euplœa klugii klugii* M.  
 \*119. *Euplœa midamus splendens* But. The Blue-spotted Crow.  
 \*120. *Euplœa core core* Cr. The Common Indian Crow.  
 121. *Euplœa core vermiculata* But.  
 \*122. *Euplœa deione deione* Wd. The Long-branded Blue Crow.  
 \*123. *Euplœa harrisi hopei* Fd. The Double-branded Blue Crow.

## Family IV. Satyridæ.

- \*124. *Mycalœsis anaxias oemate* Fruh. The White bar Bush-brown.  
 \*125. *Mycalœsis francisca sanātana* M. The Lilacine Bush-brown.  
 \*126. *Mycalœsis perscus typhlus* Fruh. The Common Bush-brown.  
 \*127. *Mycalœsis mineus mineus* L. The Dark brand Bush-brown.  
 \*128. *Mycalœsis visala visala* M. The Long brand Bush-Brown.  
 \*129. *Mycalœsis suavolens* W. M. Wood-Mason's Bush-brown.

- \*130. *Mycalesis mestra vetus* Fr. The White-edged Bush-brown.
- \*131. *Mycalesis heri* M. Moore's Bush-brown.
- †132. *Mycalesis misenus* De N. De Niceville's Bush-brown.
- \*133. *Mycalesis nicotia* Hew. The Bright-eye Bush-brown.
- \*134. *Mycalesis malsara* M. The White-line Bush-brown.
- \*135. *Lethe baladeva baladeva* M. The Treble Silver-stripe.
- \*136. *Lethe ramadeva* De N. The Single Silverstripe.
- \*137. *Lethe visrava* M. The White-edged Wood-brown.
- †138. *Lethe sidera* Mar. The Scarcè Wood-brown.
- \*139. *Lethe sidonis raiwartha* Doh. The Common Wood-brown.
- \*140. *Lethe sidonis sidonis* Hew.
- \*141. *Lethe maityra* DeN. The Barred Wood-brown.
- \*142. *Lethe nicevillei* Evans. The Straight-eyed Wood-brown.
- †143. *Lethe irma* Evans. Bailey's Wood-brown.
- \*144. *Lethe nicetella* DeN. The Small Wood-brown.
- \*145. *Lethe nicetas* Hew. The Yellow Wood-brown.
- \*146. *Lethe tristigmata* El. The Spotted Mystic.
147. *Lethe ocellata lyncus* DeN. The Dismal Mystic.
- \*148. *Lethe jalaurida elwesi* M. The Small Silverfork.
- \*149. *Lethe moëlleri* El. Moëller's Silverfork.
- \*150. *Lethe atkinsonia* Hew. The Small Goldenfork.
- \*151. *Lethe goalpara goalpara* M. The Large Goldenfork.
- \*152. *Lethe sura* Db. The Lilacfork.
- \*153. *Lethe dura gammiei* M. The Scarcè Lilacfork.
- \*154. *Lethe europa niladana* Fruh. The Bamboo Tree-brown.
- \*155. *Lethe rohria rohria* F. The Common Tree-brown.
- \*156. *Lethe confusa confusa* Aur. The Banded Tree-brown.
- \*157. *Lethe verma sintica* Fruh. The Straight-banded Tree-brown.
- \*158. *Lethe margaritae* El. The Bhutan Tree-brown.
- \*159. *Lethe insana dinarbas* Hew. The Common Forester.
- \*160. *Lethe brisanda* DeN. The Dark Forester.
- \*161. *Lethe serbonis serbonis* Hew. The Brown Forester.
- \*162. *Lethe scandia* M. The Blue Forester.
- \*163. *Lethe latiaris* Hew. The Pale Forester.

- \*164. *Lethe gulnihal gulnihal* DeN. The Dull Forester.  
 \*165. *Lethe bhairava* M.  
 \*166. *Lethe mekara mekara* M. The Common Red Forester.  
 \*167. *Lethe chandica chandica* M. The Angled Red Forester.  
 168. *Lethe distans* But. The Scarce Red Forester.  
 \*169. *Lethe vindhya* Fd. The Black Forester.  
 \*170. *Lethe kansa* M. The Bamboo Forester.  
 \*171. *Lethe sinorix* Hew. The Tailed Red Forester.  
 \*172. *Lethe pulaha pulaha* M. The Veined Labrynth.  
 \*173. *Lethe pulahina* Evans. The Scarce Labrynth.  
 \*174. *Lethe bhadra* M. The Tailed Labrynth.  
 \*175. *Lethe yama yama* M. The Dusky Labrynth.  
 \*176. *Pararge misoni* El. The Chumbi Wall.  
 \*177. *Pararge moorei* But. The Small Tawny Wall.  
 \*178. *Pararge satricus* Db. The Large Tawny Wall.  
 \*179. *Orinoma damaris* Gray. The Tiger brown.  
 \*180. *Cenonympha sinica*. The Tibetan Heath.  
 \*181. *Paraneis pumilis bicolor* Seitz. The Mountain Satyr.  
 \*\*182. *Paraneis palaearticus sikkimensis* Stg. The Arctic Satyr.  
 183. *Aulocera brahminus brahminoides* M. The Narrow-banded Satyr.  
 \*184. *Aulocera padma padma* Kollar. The Great Satyr.  
 \*185. *Aulocera padma loka* Doh.  
 \*186. *Aulocera padma chumbica* M. The Chumbi Satyr.  
 187. *Aulocera padma fulva* Evans.  
 188. *Aulocera swaha swaha* Koll. The Common Satyr.  
 \*189. *Aulocera saraswati* Koll. The Striated Satyr.  
 \*190. *Erebia scanda* Koll. The Pallid Argus.  
 \*191. *Erebia annada annada* M. The Ringed Argus.  
 192. *Erebia pomena* Evans. The Pommé Argus.  
 \*193. *Erebia phyllis irma*. Bailey's Argus.  
 \*194. *Erebia narasingha narasingha* M. The Mottled Argus.  
 \*\*195. *Ypthima nareda newara* M. The Large Three ring  
 196. *Ypthima hubneri hubneri* Kirby. The Common Four ring  
 197. *Ypthima avanta avanta* M. The Jewel Four ring.  
 198. *Ypthima avanta bara* Evans.  
 \*199. *Ypthima baldus baldus* F. The Common Five ring.

- \*200. *Ypthima methora methora* Hew. The Variegated Five ring.  
 \*201. *Ypthima sakra sakra* M. The Himalayan Five ring.  
 \*202. *Zipatis scylax* Hew. The Dark Cat's Eye.  
 \*203. *Orsotricena medus medus* F. The Nigger.  
 \*204. *Regadia crisilda crito* De N. The Striped Ringlet.  
 \*205. *Neorina hilda* Wd. The Yellow Owl.  
 \*206. *Anadobis himachala* M. The Dusky Diadem.  
 \*207. *Melanitis leda ismene* Cr. The Common Evening Brown.  
 \*208. *Melanitis phedima bela* M. The Dark Evening Brown.  
 \*209. *Melanitis zitenius zitenius* Herbst. The Great Evening Brown.  
 \*210. *Cyllogenes suradeva* M. The Branded Evening Brown.  
 †211. *Cyllogenes janetae* De N. The Scarce Evening Brown.  
 \*212. *Elymnias hypermnestra unclularis* Drury. The Common Palm fly.  
 213. *Elymnias nesoca timandra* Wall. The Tiger Palmfly.  
 \*214. *Elymnias malelas malelas* Hew. The Spotted Palmfly.  
 \*215. *Elymnias patna patna* Wd. The Blue Striped Palmfly.  
 \*216. *Elymnias vasudeva vasudeva* M. The Jezebel Palmfly.

Family V. Amathusiidæ.

217. *Faunis arcesilius* F. The Common Fawn.  
 218. *Æmona amathusia* Hew. The Yellow Dryad.  
 †219. *Sticopthalma noumahal nurinissa* De N. The Chocolate Jungle Queen.  
 \*220. *Sticopthalma noumahal noumahal* Wd.  
 \*221. *Sticopthalma camadeva camadeva* Wd. The Northern Jungle Queen.  
 \*222. *Thaumantis diorea* Db. The Jungle Glory  
 223. *Amathuxidia amythaon* Db. The Kohinoor.  
 \*224. *Discophora tullia zal* Wd. The Common Duffer.  
 \*225. *Discophora continentalis continentalis* Stg. The Great Duffer.  
 \*226. *Enispe cygnus verbanus* Fruh. The Blue Caliph.  
 \*227. *Enispe euthymius* Db. The Red Caliph.

(To be continued)

A visit to Scall's Head Island, Brancaster Bay, Norfolk.

I visited the Island with friends on the 20th August last year and had the good fortune to be accompanied by the Watcher, who proved a gold mine of information. We went by motor boat and saw many kinds of birds, Puffins, Great crested Grebes, Sheldrakes and many kinds of Gulls, Terns and Waders. There are twenty four breeding species on the Island: Five species of Duck:—Sheldrakes, Mallard, Common and Garganey Teal and Shovellers. Four Terns:—Common, Sandwich, Roseate and Lesser. During the previous year the Arctic Tern also bred. The Watcher told us that the Sandwich Tern had a separate breeding ground and that the other Terns all bred together. Other birds that bred there were Oyster catchers, Black-headed Gulls, Meadow-Pipits, Skylarks, Linnets, Wheatears, Pied Wagtails and Short-eared Owls. At his hut on the Island Swallows and House-Martins also bred. The Island is covered with more or less sparse grass and is 4 miles long. The Sheldrakes breed in holes on the higher part of the Island.

Darjeeling,  
6th May 1930.

Chas. M. Inglis,  
E. M. B. O. U., F. Z. S., F. E. S.

Horn Measurements of the Barking Deer.

Rowland Ward's record for the horns of the Barking Deer is 103/8 in. length on outside curve of antler from burr to tip. This is the measurement of a head obtained in Java, measured and owned by H. Van Son. The record given for India is:—8½ in. length on outside curve of antler from burr to tip; 3½ in. circumference above burr; 2¼ in. from tip to tip. This was from Berar and owned by Capt. H. Holmes-Tarn. Rowland Ward gives the record from our area as:—6½ in. length outside curve of antler from burr to tip; 3-3/8 in. circumference above burr and 2-5/8 in. from tip to tip. This was from the Buxa Duars and owned by Capt. A. O. Creagh.

It will be seen that Col. Wood's horns are a record for India and Mr. Baldry's a record for our area (*J. D. N. H. S. Vol. V. No. 3. pp. 63 & 67*). Editor.

Darjeeling,

10th April 1931.

The Hog Deer.

I would make the following comments of Col. Wood's article on hog-deer:—

(1) He refers to Lachiwalla in Dehra Dun as the best place he knows for hog-deer. They are now comparatively rare there, partly owing to the draining of swamps and partly to the constant shooting and poaching that goes on.

(2) I have frequently heard the alarm cry of the hog-deer. It is a high piercing whistle, quite unlike that of any other deer I know, and is generally made when a tiger or a leopard enters a swamp containing these deer. I have occasionally heard it made for men or tame elephants. There is also, probably, a mating call of the stag but I don't know it.

(3) Hog-deer are quasi-gregarious in the U. P. I know several jhils which hold considerable numbers of these deer—in one case some hundreds. Although they generally seem to collect in small parties of anything up to 5 individuals, the distance between parties is sometimes only a few yards. I have seen as many as 20 at once, sunning themselves in the early morning on the edge of a jhil, after the surrounding grass has been burnt in the spring.

F. W. Champion,  
I. F. S.,

Naini Tal, U. P.  
7th August 1931.

Rangpur,  
15-7-31.

From

A. E. F. Wood Esq., I. P.,  
Superintendent of Police, Rangpur.

To

The Editor of the Journal of the Darjeeling  
Natural History Society, Darjeeling.

Dear Sir,

With regard to your queries in the June issue of the Journal regarding Hog Deer, Col. Wood is quite right in speaking of herds. I only once came across a large herd but this was a herd of 75 to 80 animals. These were seen on the Rydak River in March 1928. I have also seen a small herd of about 20 near Chilapata in the Duars.

2. With regard to the question of call, I cannot say that I have ever heard Hog Deer calling in the generally accepted sense of the term. I have, however, on one occasion heard the cry mentioned by Kinloch. This was a stag which I came upon suddenly. The animal started up, exactly as described by Kinloch. The cry was obviously one of fear and, as far as my recollection goes, shorter and sharper than the cry of fear sometimes given by the barking deer.

Yours, etc.

A. E. F. Wood.

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#### Leeches attacking Snakes.

In the Journal of the Bombay Natural History Society, Vol. XXVIII, p. 557, the late Mr. A. P. Kinloch mentions a small leech attached to a species of *Dryophis*, an arboreal snake. In the same Society's Journal, Vol. XXIX, p. 302, Col. Wall remarks on this and gives an instance of two aquatic leeches, bloated with blood, which were found in the mouth of a specimen of the Copper-headed Rat Snake (*Coluber radiatus*).

Professor J. Percy Moore told me of a case of a leech (*Haemadipsa zeylanica montivindicis*) attacking a frog.

We would be glad to hear of any cases of leeches attacking snakes, or anything else out of the common, which may have come to the notice of our readers.

Darjeeling,

Chas. M. Inglis.

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