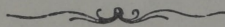


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C. M. INGLIS, F. Z. S., F. E. S., M. B. O. U.

**Journal**  
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**No. 3.**

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

BY

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

( Continued from page 28 ).

**11. The Blue Hill-Pigeon.**

( *Columba rupestris turkestanica* ) Buturlin.

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This Pigeon is a much paler grey colour than the Indian Blue Rock-Pigeon, especially on the lower plumage; the neck is glossed with green and lilac and the upper breast with the latter colour; the lower back and a broad band across the tail are white. It is easily distinguished from the previous bird by the broad white band across the tail,

The bill is plumbeous black; the iris golden-red and the feet lobster-red.

Both sexes are alike.

With regard to the distribution of this species within our area I have the following information. Stuart Baker says.—“It undoubtedly also occurs not uncommonly in the higher, barer parts of Sikkim, and might therefore possibly straggle into Darjeeling.” Since then, however, he has come to the conclusion that the “specimens in the British Museum labelled Darjeeling probably come from further north.” We did not find it during our trip to the barren part of North Sikkim in October 1927 and I think it most improbable that it at any time straggles into Darjeeling. Col. F. M. Bailey who knows the bird well writes to me that he *thinks* it is to be had in North Sikkim and agrees with me about

its being unlikely to ever reach Darjeeling. It does occur in North Sikkim as Col. Meinertzhagen got it there at Gyagong ( 15,780 feet ) in November. We saw none there in October 1927. He wrote in the Ibis of October 1927 :—"There were a flock of eleven round our tents and absurdly tame, running in and out of the tent and scarcely deigning to get out of one's way." It is a very common bird in Tibet and one of high elevations. In Turkestan it is found as low as 8000 ft. and was seen in Tibet as high as 20,000 ft. by the Mount Everest Expedition of 1924.

The habits flight and food are much the same as those of the Indian Blue Rock-Pigeon and they are good table birds though according to Stuart Baker "drier and less fat." Major Hingston writing in the Journal of the Bombay Natural History Society of October 1927 on the birds of the Mount Everest Expedition of 1924 says :—"A bird of the plateau. Commonly seen in flocks. Abundant everywhere, around rest-houses, villages, and forts. Harmonizes fairly well with the plateau soil. Unlike *C. leucnota* it haunts the round hills and open valleys as well as the precipitous cliffs. Likes to frequent caves and ruined buildings, is very common in Tibetan villages and comes to cultivated fields. Feeds regularly in the village streets. Haunts the stone bridges across the streams. Nests in the Tibetan forts, such as those at Khampa, Tinki, and Shekar. One of the regular visitors to our base camp where it walked fearlessly amongst our tents like the pigeons in a city street. Also ascended to the higher camps. Made daily visits to Camp 1 at 18,000 ft. and seen sometimes at Camp 2 at 20,000 ft."

Stuart Baker writes as follows about their breeding:—"Bailey.....says that he found it breeding both at Gyantse ( 13100 ft. ) and at Kangmar ( 14000 ft. ) in ruined houses during the months April and May." Like the Indian Blue Rock-Pigeon it also breeds, in large numbers, in cliffs.

The eggs, two in number, are glossy white and measure 1.46 in. by 1.12 in.

( To be continued ).

## The Snakes of Northern Beugal and Sikkim.

BY

G. E. SHAW AND E. O. SHEBBEARE.

(Continued from page 34.)

**14. Pseudoxenodon angusticeps** (Blyth). The Mock Cobra, also known as the Goggle-eyed Keelback or Hooded Tree Snake. Formerly known as *Pseudoxenodon macrops*. Not poisonous.

Head distinct from neck, eyes large. Colour and pattern most variable and, as the number of scales is practically the same as in several Keelbacks, it is sometimes rather difficult to indentify. Its neck, however, is dilatible and the snake often stands up and expands it in a feeble imitation of a cobra, whence its name, Mock Cobra, and though one cannot stretch out the neck of a dead specimen, yet the overlapping scales can be seen, making a pattern there very like that of a cobra, see figure F in Plate 2. The rest of the scaling is that of a Keelback.

Practically every specimen has a row of black spots along each flank, about the fifth row up and four or five scales apart. These are very characteristic.

There are two distinct types.

(a) the more common one varies considerably in colour but most commonly the general colour above is olive-green to olive-brown. It may be purplish brown with or without a series of yellow (sometimes orange or reddish-brown) irregular spots along the back bone flanked on either side by a series of black ones. Colonel Wall says there are sometimes cross bars whitish or cinnamon, or white in front cinnamon behind. These marks may be anything from conspicuous to absent. The belly is usually pinkish fading to white in front with domino marks in dark brown to black. behind pale gray clouded with brown under the tail. The head is usually the same colour as the back but may be anything from slatey blue to rich dark green. There is also, usually, a fairly distinct arrow head mark on the nape, the point reaching the suture between the parietals; this may be any colour from billiard cloth green to lilac (Wall) but it is usually blackish or even intensely black.

(b) There is a distinct high level form only found above 5000 ft. This has a deep terra cotta colour with

indistinct broken zigzag lines of black and yellow or on the neck black and red. Ventrals yellow with dice markings in front and their ends orange. Chin white becoming yellow and fading to dull pink behind. No head markings.

**Food.** Frogs, and once a shrew, have been found in the stomachs of this snake.

Costals 19-21. 17-19. 15. Ventrals 157-185.

Subcaudals 56-77.

Length to 4 feet.

**Trachischium.** This genus is very easily distinguished. There are three species in this part of India, all with 13 rows of scales, all small, none above 20 inches, and all nearly black above. They have small heads and no sign of a neck, the anterior end merely sloping gradually to the snout with just the slightest widening behind the eyes. The tail is very short.

They are the only small black snakes, with the exception of Rapp's Smooth Snake and the young of the Black Krait. These also have practically no neck so could easily be taken for one of the Roughsides till the scales are counted, though Rapp's Snake has markings for a collar. The Roughsides are extremely gentle snakes but it is well to make sure of the identification before handling them. The name Roughside refers to the keeling on the sides near the anal region. It is very slight but keeling in this position only is most unusual and I do not know of any other snake in which it occurs. It has been said that it is more marked in the males, but I doubt it.

**15. Trachischium fuscum** (Blyth). The Black-bellied Roughside, or Black-bellied Worm-eating Snake or Vermiphage. Not poisonous.

Very common all round Darjeeling. It has been seen in the middle of the Chowrasta exciting aversion, hatred and fear in a crowd of visitors, though it is a gentle little thing never attempting to bite and quite harmless if it did so. It is usually a dark, shining iridescent brown or very dark grey, nearly black the ventral scales as well as the costals being quite dark. No other snake with ventral scales has them the same colour as the upper surface. The colour may be dark leaden grey or even slatey blue but in either case still very

dark. The ventral scales have their posterior borders marked with a line of what looks like white, by contrast but which is really lightbrown or lilac. The costals, too have a light edging which is sometimes prominent and sometimes barely noticeable. In the young the chin may be quite light and pinkish. This snake is always rather soft and flabby. It feeds on earthworms and requires large numbers of them.

Scales in 13 rows at each of the three counting places. Prefrontal single, not double as in most snakes.

Ventrals 152-169 Subcaudals 32-42.

Length up to 20 inches.

**16. *Trachischium guentheri*** (Boulenger). The Rosebellied Roughside. Not poisonous.

Not at all common but it is found with the last species near Darjeeling.

It is distinguished from it by the distinctly pink or red belly, and usually by a smaller number of ventrals; otherwise it is very similar. It is dark brown or black above and red below. The ventrals may be all red from chin to tip of tail or may be yellowish-white or light brown with the exception of the belly which is always red.

Scales in 13 rows. Ventrals 133-154. Subcaudals 33-39.

Length up to 7½ inches.

**17. *Trachischium tenuiceps***. (Blyth). The Yellowbellied Roughside, also called the Canarybellied Worm-eating Snake. Not poisonous.

This snake is found at lower levels than the preceding two, mostly between 1000 and 4000 feet. It is not flabby and can be distinguished by the yellow colour below. In most specimens this is a brilliant canary-yellow but in others it is only a dirty yellowish-white, these are probably the younger ones. Above it is, usually, pure black with the faintest of longitudinal lines along the centres of the 13 rows of scales; these lines can rarely be made out on the upper rows but are almost always plainer on the lower ones.

The ventrals have as usual the posterior edges a little lighter than the rest of the scale.

Scales in 13 rows all along the body. The keeling is sometimes quite imperceptible.

Ventrals 125-141. Subcaudals 31-41.

Length up to 17 inches.

**Lycodon.** Our next genus is so called because the third or fourth maxillary tooth and the anterior mandibular teeth are enlarged and have some resemblance to the canine teeth of a wolf.

*Lukos* means a wolf and *odon* a tooth.

All three of our species have 17 rows of scales at mid-body and 15 two head-lengths before the vent. The head is only slightly distinct from the neck and is flattened on the top; the eye is rather small with a vertically elliptic pupil; this cannot often be seen till the specimen has been soaked in spirit, for the whole of the eye appears to be one circle of black. In most specimens but not all, three labial shields come right up to the eye.

18. **Lycodon jara** (Shaw). The Twin-spotted Wolf Snake. Not poisonous.

This rather uncommon snake is easily identified by the two small yellow dots on each scale. The ground colour of the upper scales is dark grey, very dark brown or black, the ventrals and first row of costals are white and the upper lips also appear to be always white. Boulenger says it usually has a white collar but we have never seen one with it.

In one I found a small lizard, *Lygosoma*.

Costals 17. 17. 15. Ventrals 168-186. Subcaudals 62-68.

Length up to 24 inches.

19. **Lycodon aulicus**. (Linné) The Common Wolf Snake. Not poisonous.

Common but as it only moves about at night it is not seen so often as some others which are less common, and this in spite of the fact that it often enters houses and out-houses. The specific name *aulicus* means "house-dweller". Slender, head flattened, snout rounded, neck just distinct from head. Eye black but sometimes, after death, shows the vertical pupil. Tongue pink with white tips.

It has yellow transverse bands across its chocolate or slatey-brown back. These bands run into a network of fine yellow lines along the sides, and beyond the first third of the body the bands themselves are only formed of a similar yellow network, a network being composed of the light borders of individual scales. The first band, as is usual whenever cross bands are present

at all, is just behind the head and directed forward on top.

It usually has a break there and the two halves just touch the parietal plates. The second band is half to three quarters of an inch farther back and this interval is maintained between bands for a third of the length of the snake.

The bands then begin to get closer together till just before the tail one continuous network covers the surface. Ventrals silvery white, keeled on each side. Upper lip white.

They are spirited little snakes and always ready to show fight; they are splendid climbers and can go up a perpendicular wall like a lizard.

**Food.** Small lizards, but more often mice.

Costals 17. 17. 15. May have 19 on the neck.

Ventrals 192-216. Wall says down to 177. Subcaudals. 55-81.

Length up to 33 inches.

20. **Lycodon fasciatus.** (Anderson). Anderson's Wolf Snake. Not poisonous.

This pretty and uncommon snake I have only found or three occasions, on twice of which they were in the roof of the Sureil Bungalow.

The light annular bands have caused many people to assume it to be a krait but it is smaller, the bands are wider and, of course, it has no vertebral row of large scales.

It has the flattened head and broadly rounded snout of the genus, eyes rather small and iris visible this being unlike the other members of the genus which have a plain black eye with no sign of an iris. Pupil vertical. Body long and cylindrical. Its colour is a rather shining black with numerous white cross bands with jagged outlines, very little, if at all, interrupted on the ventrals. The first over the neck is not always complete above but involves the chin below; those further back are from 2 to 4 scales wide and there may be about 30 on the body and 15 on the tail, still more have been recorded. Colonel Wall says the bands may be reddish yellow.

Head, black above and on the edge of the upper lips, the whole of the lower lips and chin white, more or less mottled with black.

It is essentially nocturnal, and very active then.  
It is said to eat lizards and other snakes.

Costals 17. 17. 15. Ventrals 201-223. Subcaudals 74-94.

Length up to 3 feet and  $\frac{3}{4}$  inch but usually only 2 feet.

21. **Dinodon gammiei.** (Blanford). Gammie's Wolf Snake. Formerly known as *Lycodon gammiei*. Not poisonous.

Only four specimens of this snake appear to have been found, all from near Kurseong. It was separated from Anderson's Wolf snake because the first specimen had 19 rows of costal scales at mid-body instead of 17; otherwise it is so like Anderson's that, in 1911, Colonel Wall wrote to the Bombay Journal saying he felt confident it was only an aberrant form of that snake.

Since then a specimen has been found with only 17 rows in the middle of the body, but now another difference, a more important one, has also been discovered the teeth are arranged differently, this difference being sufficient to take it out of the genus *Lycodon* and place it in the next door one *Dinodon*.

The fact remains, however, that in external appearance they are practically the same. We have not found it yet and the first thing to look for seems to be the number of caudal scales 98 to 105, instead of 81-92 in *Dinodon septentrionalis*, and 74-94 in *Lycodon fasciatus*. If these are right then another point is that, in this species, the loreal fails to touch the eye, which it usually does in *fasciatus*. The difference in teeth, the deciding factor, should be referred to an expert.

Costal rows 17, 17, or 19. 15. Ventrals 206-222. Subcaudals 98-105.

Length to 3 feet 8 inches.

22. **Dinodon septentrionalis.** (Günther). The White-banded Wolf Snake or Jerdon's Wolf Snake. Not poisonous.

This is recorded by Col. Wall from Phoobsering, 4500 feet but we have never come across it. It is, apparently, very like Anderson's Wolf Snake, No. 20.

Col. Wall says it is "Glossy black with 27 pure white narrow well defined arches over the body and 13 over the tail. These involve a scale or a scale and a half vertebally and dilate on the flanks. The belly is pearly white but on the tail the dorsal black forms complete bands. The eye has the pupil vertical." In

life, however, the iris is invisible and the whole eye appears black. It is so like a krait that, in Burma, Col. Wall once put a specimen with his kraits and only discovered that he had this snake when examining them critically. Boulenger gives as a difference from Anderson's Wolf Snake the length of the chin shields. In this species the anterior is longer and in Anderson's the posterior.

**Food** The Phoobsring specimen had eaten a lizard (*Lygosoma*.)

Costals 17. 17. 15. Ventrals 207-217. Subcaudals 81-92. Length up to 3 foot 4 inches.

(To be continued.)

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### TREE SHREWS AND MIMICRY.

Most of our readers who know the jungle of the foot-hills skirting the Duars and Terai, especially those who sometimes sit up for leopard and tiger, must be familiar with the little grey creature known to naturalists as the Hoary-bellied Himalayan Squirrel (*Tomerutes lokroides*). I expect fewer know of or realize the existence of his double, the Sikkim Tree Shrew (*Tupaia belangeri lepcha*). The last name, *lepcha*, was probably given him simply because he was first found in Sikkim, but it is appropriate enough for I doubt whether any of the local population except the Lepchas are sufficiently keen observers to distinguish between two creatures so much alike and neither of them ordinarily used for food. At any rate I have never been able to find a Nepalese, Bengalee or Mechi name which was not applied equally to both, though I well remember old Achoo, the famous Lepcha collector's disgust with his Nepali-ized son for not knowing the difference, nor shall I forget my own surprise at finding that the little grey creatures, which I had often watched, represented not one animal but two.

It happened in this way. Major Light, then Commandant of Buxa Fort, told me that squirrels were eating his eggs. I told him I doubted it (being the only Europeans in Buxa at that time we made a practice of doubting one another's statements) and, a few days later, he threw on to my table a small grey

animal which he had shot as it emerged from his hen-house. This appeared to clinch the matter but, suddenly noticing the animal's mouth with the rows of little, sharp-pointed teeth set in a pointed snout, I denied that the animal was a squirrel at all. The Major thought that I was quibbling and challenged me to produce a grey squirrel if this were not one. I think we had a bet on it, at any rate it was obviously up to me to produce a squirrel. Buxa swarmed with them, but as usual when you want something it is difficult to get, and it was a matter of days before I was able to lay a dead squirrel alongside the dead tree-shrew; I remember still how unsavoury the comparison was, but the likeness was extraordinary.

I have never got over my surprise and still wonder that two animals belonging not only to different species and genera but to different orders, the one a rodent, related to the rats and rabbits, the the other an insectivore, related to the moles and hedgehogs, should be so much alike. Both have the same specked greyish fur, lighter beneath, the same "feathered" tail with hair on the sides only, not all the way round like most squirrels; they are the same size and (except for their snouts) the same shape and move about among the branches in the same active way, holding their food in their fore paws and sitting up to eat. The only obvious difference in fact is the mouth; the squirrel has a typical rodent's mouth with two pairs of curved chisel-like gnawing teeth in front while the tree-shrew has a typically "insectivorous" mouth set with straight rows of little sharp even-sized teeth.

The tree-shrews, are a very small family of only 6 species, mostly Malayan, with one species running up through Burma and Assam into our area. Although so small and restricted this curious family is of the greatest antiquity and the fossil remains of their ancestors, very like those living now, date back to pre-tertiary times when mammals in their present form were only beginning to be evolved. In a recent book Professor Elliot Smith shows that the tree-shrew is in the direct line of man's descent through the tarsiers and lemurs to the apes. He believes that, when some of the shrews first adopted a life in the trees, one of the great steps towards the evolution of man was taken. In ground-living animals smell is the predominating sense, so much so that a large part of the

available brain space is given up to it. In tree life scent becomes of much less importance and this part, of the brain diminishes making room for keener senses of sight and especially of touch and still leaving space for the enlargement of those parts of the brain which have to do with the co-ordination of ideas and memory.

But to return to the original subject, why should two unrelated animals be so much alike? As far as I can see neither can reasonably be supposed to gain by being mistaken for the other, after the manner of harmless flies which mimic stinging wasps. We can hardly suppose that the grubs and insects which form part of the food of the tree-shrew allow it to approach more easily under the impression that it is only a harmless vegetarian squirrel. It is true that both animals live much the same sort of life in the same surroundings, and it may be argued that similar environment induces a similar appearance. Somehow this explanation fails to satisfy me. After all the grey squirrel appears to live much the same life as the big black one with the white shirt-front or the little one with a striped back, and look at the difference between these much more closely related animals. Again it may be argued that the bushy tail is useful in tree life (it undoubtedly is) and the rest is coincidence. I do not think that anyone who compares the two (if he lives near Darjeeling he can do it in the mimicry case in the Museum) will be satisfied with this explanation, the likeness is altogether too striking.

Another possible explanation is that the flesh of the tree-shrew may be unpalatable and the squirrel thus gain immunity from its enemies, eagle-owls and the like by the likeness. Not having tasted tree-shrew I cannot say whether they are good eating or not (some of our readers might like to try) but there is no doubt that several insectivores are unsavoury or even poisonous. At Home cats seldom, if ever, eat the shrews they kill, and I once had a tame Jungle Cat (*Felis affinis*) apparently poisoned by eating part of a musk rat, a fairly close relation of the shrews. The cat was a half grown one in perfect health and she and her two brothers, who survived her and eventually "cleared off", were accustomed to forage for themselves, greatly appreciating my neighbours' fowls. She was found dead with the head of the *chuchunda* in her mouth, having apparently eaten the body.

Similarity between species not closely related, but living in the same locality, is not confined to this pair of doubles. The Himalayan and Sloth bears are not near relatives, the latter belongs to a genus of his own (*Melursus*) where as the Himalayan bear is one of the true bears, until recently, all included in one genus (*Ursus*) which took in the Polar Bear, the Grizzly and all the rest of them. The Sloth Bear leads a different life feeds on different food but his territory overlaps that of the Himalayan bear, as for example at Sivoke. Both of them are black with a white 'horseshoe', a sufficiently striking colouration and one which, as far as I know, is shared by no other bear in the world, except the little Malay Sun Bear, whose territory also overlaps that of the Himalayan Bear in Chittagong and I have no doubt in other places also.

It is perhaps a stretch of imagination to see a similarity of colour between two animals so different in general appearance as the Buffalo and Bison but 'back with whitish legs from the knees and hocks downwards', would describe a bull bison or wild buffalo equally well and would fit no other animal that I know of (except perhaps the Serow). Here again their relationship is not close. The bison is a true cow and will I believe interbreed with domestic cattle as will the American bison and yak; the buffalo prefers grass and the bison trees, both may be found in the same places especially when there is new grass about.

Among the birds we can account for the striking likenesses between the Drongo-Cuckoo and the King-Crow and between the Shikra and Brainfever Bird by some obvious advantage gained. In the former pair the cuckoo is known to use the nest of the other for her changelings and, though the brainfever bird does not victimise so formidable a bird as the shikra, it is reasonable to suppose that it is an advantage for a harmless bird to look like a hawk. One writer suggests that she uses the disguise to frighten laughing-thrushes, her victims, off their nests. But what advantage can it be for Forktails to look so much like Wagtails or vice-versa. It is true that the actual arrangement of black and white is not the same in both, but the general effect is very similar and anyone would think that the little pied birds were closely related, especially as both stand on stones in the middle of a torrent twitching their tails. By the way there would seem to be some connection between stones

in torrents and tail twitching, the Redstarts and the Whistling Thrush do it too.

Another striking case of this sort occurs among the snakes. *Rhabdophis platyceps* and *Polyodontophis collaris* are both rather variable snakes, so that it is difficult to say which is the patentee and which the infringer but they are sometimes so much alike that any court would find it a "colourable imitation." The latter has a white upper lip and also a white collar, and both these features are imitated by the former by extending and emphasizing the white streaks, usually present under the eyes, into long white lines meeting across the nape. This looks rather as if the former were the imitator, on the other hand he seems to be the originator of the black chin which is "copied" by the latter by increasing the number of black specks some of which are always present in that region. These two snakes belong to entirely different groups and neither is poisonous.

Imitation among butterflies is more common than among any other creatures but there often seems to be a good reason for it the appearance of unpalatable species being copied by others, presumably as a protection against birds. Some cases, however, do not seem to be open to this explanation. The female of *Papilio polytes romulus*, one of the black swallowtails common in the plains, assumes three different forms, one like another butterfly *Byasa aristolochiae*, another like *Byasa hector* and a third like her own male. Here, where *B. aristolochiae* is common and *B. hector* not found, the *aristolochiae* form is the commonest, though both the others occur. In Ceylon and South India *B. hector* is common and she most often mimics this, while in localities where neither of the other species ordinarily occur, as in Hongkong, the commonest form is that of her own male.

I believe that this sort of imitation occurs also among plants, but I will give only one instance here. The tree known as *Gamari* or *Khamari* (*Gmelina arborea*) resembles *Pitali* or *Ramritha* (*Trewia nudiflora*) both in the leaf, which is roughly heartshaped, and in the bark, which is grey and flakey, to such an extent that a beginner has some difficulty in telling them apart. They belong to entirely different orders (*Verbenaceae* or *Euphorbiaceae*) but both occur in a similar habitat, on silt in the neighbourhood of permanent water in the Dooars and Terai.

To sum up, it would seem as if there were some law governing likenesses which we do not yet understand. I will try to formulate what I mean as follows:—Two species, not closely related but found in the same habitat, sometimes approximate to one another in superficial resemblance more closely than either of them do to nearer relatives, and for no apparent reason.

It would be very interesting if members would give any instances which they have observed of this sort of likeness.

Darjeeling,

E. O. SHEBBEARE,

15th September 1927.

*Note.* Since writing the above I have seen the new volume of the Fauna of British India on leeches. Here it is stated that *Haemadipsa ornata* the common yellow striped leech, is imitated in size, form and colour pattern by a land-planarian (a creature of a different sub-kingdom related to the flukes and tapeworms) which is found with the leeches. I have never seen this creature. I wonder if any of our readers know it.

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### A Good Cold Weather's Sport.

Luck has been with me this cold weather as I have bagged 2 leopards, a nine feet eight tiger and a tigress. The first three from a car, one leopard and the big tiger while I personally was at the wheel.

(i) The first incident occurred while out snipe and duck shooting at Titalia last November, we reached there after 4 p. m. and went straight on to the jheel where we only shot 4 duck. We could not persuade the coolies to carry the duck to the car, which was on the main road, as they said there was a leopard about so we did it ourselves. It was dusk when we reached the car and set off for the dāk bungalow to get some longed for tea. After tea we decided to drive up the road as it was dark and when about half a mile from the bungalow we spotted eyes on the right edge of the road. On getting up closer we made out a leopard which crouched for a time in one of the ruts along the road edge. It was head on and about 100 yards distant, so not a very good shot even with

a spot light on it. However we got within 60 or 70 yards of it before it turned to make off into the scrub jungle and in doing so only presented its stern as a mark. I had a .450|400 H. V. rifle and, thinking a shot centrally placed would be sure to kill it, fired. It was very evident that the leopard was hit as it seemed to have its stern jarred forward. We could, however, find no signs of it that night and it was too dangerous a job to get out and investigate. Early next morning we went to the spot and found the animal, not six yards off the road, lying dead. The bullet (soft nosed) had struck it nearly centrally in the stern, gone right along the inside, smashing every organ and was lying just under the skin behind the right shoulder.

(ii) On the morning of 4th February news was brought me that a pony had been killed on an open plain within 400 yards of my bungalow. On going to the spot, and examining the carcass, I took it to be the work of a leopard.

The nearest tree being over 200 yards away I decided to drive the car on to some high land overlooking the kill and within thirty yards of it. As it got dark I ran the car into position with both head lights and spot light burning. A pair of eyes were at once visible about 200 yards distant on the far side of the kill and it looked as if the animal intended walking up to the kill in the beam of light; however after a few seconds the eyes disappeared and I put out the lights and switched off the engine. Some twenty minutes later I switched on the spot light but saw nothing so decided to wait a bit longer. A few minutes later I heard a peculiar whistling sound which I took to be a bird and paid little or no heed to it. Thinking it was rather a hopeless kill to wait over, and as a last resource, I put on the spot light again and swept the river bank from right to left and there, to my joy, the eyes showed up some distance down, and I could follow them as the beast made off into a small patch of jungle between a kutchra road and the river. The animal was much further away now and did not appear to be coming to the kill, so I started the car and got on to the kutchra road, down which I drove, till I reached the spot where I had last seen the eyes and there, to my surprise, was a pony just killed. It was partly lying on the road and I had to run over its hind legs to get past. I drove on for about a mile and

then turned back but saw no signs of the animal, the pony however was still on the road. I again went down the road to a neighbours' bungalow to get him as an extra gun and on returning found the pony had been dragged into the jungle but no signs of the animal that had killed it. We went home to my bungalow for dinner and afterwards drove my friend home passing the spot on the way and returned myself. In all I passed the spot six times, three times while the pony was on the road, and three times after it had been dragged. Nothing more could be done that night so I returned home.

Next morning I again went to the spot and found the pony in some jungle and only about twenty feet from the road. A better spot could not be wished for and a *machan* was soon got ready. As both ponies had only their throats lacerated and torn I thought it must be the work of a very large leopard and decided, as an inducement, to tie up a live goat alongside the kill. I got into the *machan* at 5-30 p. m. with the goat alongside the kill; the latter after nibbling at a few leaves settled down to sleep. I heard a splash in the river about ten minutes to six and soon afterwards a faint stealthy step to the left and behind me. A bird which had been roosting near by was disturbed which made it evident that some animal was approaching. I had a 12 bore shot gun, loaded in one barrel with an S. S. G. and in the other a contractile bullet, and an electric torch was clamped on to the under side of the gun. I now heard the snap of teeth and putting the gun to my shoulder pointed it at the goat and pressed the torch button expecting to see a fine leopard on the goat. To my great surprise I saw the poor goat standing up while a tiger had taken a grip of it right in the middle of the back. It was only about twenty feet distant and offering a perfect shot I aimed behind the left ear and fired the S. S. G. barrel. The shock of the explosion dislodged the torch but fortunately it came off in my hand; so holding it in my left hand I again aimed and put on the light and saw the goat still standing in the jaws of the tiger or rather tigress as she afterwards proved to be, while the latter's body had collapsed in a heap, the neck and shoulder partly supported by a sapling.

Hoping to save the goat and not wishing to lose the tigress I fired the contractile at the latter's left

eye and her head fell to the ground. The goat stood still for a few moments and then suddenly facing the dead tigress butted her head most vigorously. Unfortunately this brave deed was of no avail, the goat dying about five hours later.

(iii) Now for the tale about the big tiger which I bagged from the car on the 1st March this year.

On the evening of that day I motored over to a friend's bungalow to take him out for a spin and hoping to come across some big game at the same time. I had a presentiment that we would get something and my words to my friend were to that effect.

We first saw a pig and as it was on my side, I was driving the car and had a .500 bore double barrelled rifle firing low pressure cordite, I covered it but didn't fire as it bounded towards the car for a few yards and then made off into the jungle. We drove on for a bit and then returned thinking we might see something of the pig but drew a blank. We then turned again and carried on in our original direction. It was about 7 p. m. when suddenly round a gentle bend I saw a tiger. He was standing in a wide drain on the right side of the road, with eyes closed and his head about two feet from the road edge; an old stager where cars were concerned. I pulled myself together for I could hardly believe my eyes, the animal, though fully visible, blended so perfectly with the heavy grass background. I stopped the car about 15 yards from him and he never made the least movement. It was a close shot, but with the animal's head to the road I knew it would be a very dangerous business to only wound him, so quickly decided to take a neck shot knowing that the shock of one always, or nearly always, floors an animal or else stuns it sufficiently to allow of more lead being pumped in. There was no spot light on the car but the view was clear so I fired centrally into the neck and the tiger dropped where he had been standing. My friend who hadn't seen the tiger, asked what I had fired at and I told him I had bagged a tiger and he was as pleased and excited as I was. I waited to see if the animal was dead keeping his head covered and after about half a minute he began to struggle so I put another copper-tubed ball into his head which killed him outright.

We waited for a bit and my friend got out and fetched a stone which he threw at the beast and seeing

the tiger's tail only twitched we decided it was safe to leave him and seek assistance to load him into the back of the car.

We managed to borrow a couple of servants from a bungalow some way off and also met another car containing a lady, two gentlemen and a native who very kindly volunteered to give a helping hand. It was no easy task as the tiger was 9 foot 8 inches measured straight, not round the curves, but we eventually managed to get him on his back, tail foremost and head bent up till the door of the car was securely closed. Thus ended an exceedingly lucky evening's sport.

Taipoo T. E.

A. C. Ricketts.

*10th April 1927.*

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#### **Woodcock in the Duars.**

The occurrence of Woodcock in the Duars may be of interest to some of our readers. While staying with my friends the O'Donels at Huldibari T. E. we got one in the Muraghat Forest on the 31st March 1928. Another one was seen at the same place. Mr. Wibmer also told me of one they had seen near the Jaldacca in the same year I think.

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

Darjeeling 9th. April 1928.

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## EDITORIAL.

We give a short account of the touring and collecting done, a list of members and visitors up to the time of writing viz. 27th November 1928.

**Touring and Collecting** :—From the middle of January to the end of March was spent in the Duars. We were again the guest of Mr. and Mrs. O'Donel but this time at Huldibari in the Western Duars and so it was new collecting ground. We didn't anticipate getting very much that was new, so were pleased to add 276 birds skins of which some 25 were new to us. Every year it is, of course, becoming more difficult to add new things. We also got four mammals but nothing new.

During this period we spent a few days at Nangdala as the guest of Mr. and Mrs. E. G. L. Webb and found it an interesting spot a few birds were collected there.

A couple of days were spent with Mr. Shaw at Mangpu on our way to and a week on our return from Gangtok in May, we spent a fortnight at the latter place as the guest of Lt. Col. and Mrs. Bailey. Unfortunately both of our collectors were too ill to accompany us, the result of malaria got in the Duars, Mr. Shaw, however, very kindly got us a man with some slight experience but we would have done better had we had the services of our own staff. The result of these trips were 26 birds two of which were new to us and a few insects.

We made a short trip to the Singalila range from the 9th to the 17th October, halting at Tonglu, Sandakphu and Phalut. The result of this trip was 42 birds of 27 species, of which three were new to our collection and others of great interest. It was too cold for insects and we only got a few butterflies, beetles and 9 dragonflies which we have sent to Lt. Col. Fraser to determine.

We also got a few birds in the valley at Singla. We will now give a list of the contributions to the Museum since our June issue.

One Large Indian Civet (*Viverra z. zibetha*) from Mr. F. W. Bateman.

One Bay Bamboo Rat (*Cannomys badius*) from Mr. R. R. Kirby.

Horns of Thar (*Hemitragus jemlahicus*) }  
 Two *Parnassius hannynghoni* } From  
 Two *Parnassius acco gemmifer* } Lt. Col,  
 Two *Pieris dubernhardi gyantsensis* } F. M.  
 One *Erebia phyllis irma* } Bailey,  
 One *Colias nina* } C. I. E.  
 One *Colias berylla* }  
 One Leopard Cat (*Felis bengalensis*) }  
 One Tibetan Lynx (*Felis isabellina*) } Purchased.  
 One Tibetan Wolf (*Canis laniger*) }  
 One Young Himalayan Wood-Owl (*Strix nivicola*)  
 from Mr. Bhuktu Singh.

One Sultan Tit (*Melanochlora s. sultanea*) from Mr. T. A. Baldry.

One pair Red-crested Pochards (*Netta rufina*) }  
 One pair Cotton Teal (*Nettopus coromandelianus*) } From  
 One drake Gadwall (*Chaulelasmus streperus*) } Mr.  
 One duck White-eyed duck (*Nyroca r. rufa*) } C. M.  
 One Indian River Tern (*Sterna seena*) } Inglis.  
 One Black-bellied Tern (*Sterna melanogaster*) }  
 One Eastern Large Egret (*Egretta alba modesta*) }  
 One Cattle Egret (*Bubulcus ibis coromandus*) } From  
 One Blue-tailed Bee-Eater (*Merops superciliosus javanicus*) } Mr.  
 O'Donel

Two abnormal Leghorn eggs }  
 One ordinary Leghorn egg } From Lt. Col G. A.  
 A number of beetles } Webb.

A skin of *Varanus flavescens* from Mr. W. P. Field.  
 One Common Wolf Snake (*Lycodon aulicus*) from Mr.

B. N. Crees.

A number of Snakes from Mr. J. W. B. Atkins.  
 A number of Snakes from Mr. F. Page-Wernicke.  
 A number of Snakes from Mr. E. O. Shebbeare.

One Banded Krait (*Bungarus fasciatus*) from Mr.

F. Ross Jones.

One Agamoid Lizard (*Colotes versicolor*) }  
 Four Skinks (*Lygosoma maculatum*) } From  
 Two Skinks (*Lygosoma indicum*) } Mr. G. E.  
 Six Frogs (*Rana limnocharis*) } Shaw.  
 A few Leeches (*Haemadipsa ornata*) }  
 One Leaf insect (*Phyllium scythe*) }  
 Some insects }  
 25 Plaster of paris casts of Snakes }

One Nematode Worm from Col. Tobin.

One Moth (*Trabala vishnu*) from Mr. G. M. Fothergill.

**Visitors:**—His Excellency Sir Stanley Jackson, Lady Jackson and Mr. and Mrs. Stanley Jackson on the 18th April 1928.

Mr. and Mrs. Stanley Jackson on the 11th June 1928.

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