

## Occasional Notes from Sikkim.—No. I.

BY. J. A. GAMMIE.

IN sending a few notes from this part of India, I would draw attention to Hooker's Himalayan Journals, which contain an admirable account of Sikkim. Although the author spent but part of two years in it, and labored under the great disadvantage of having had no previous knowledge of the customs or language of its inhabitants, the information he amassed is, in many respects, almost exhaustive, and in every way trustworthy. After twelve years' uninterrupted residence in Sikkim I can but admire the book the more. For the fulness and correctness of its information, it is beyond all praise, and I would strongly recommend intending visitors to this part of the world to procure it.

Unfortunately, in consequence of Doctor (now Sir Joseph) Hooker's time having been fully taken up with the Botany, Geography, Meteorology, &c., of the district, very little is said about its birds.

In all essential matters the information collected, more than a quarter of a century ago, stands perfectly good to this day; but in some respects a gradual change has taken place. The country side had not then been cleared of its virgin forests for Tea and Cinchona plantations, and was but thinly inhabited by Lepchas, who subsisted partly on the few crops raised on small clearances—to be abandoned as soon as exhausted for virgin soil—and partly on roots, &c., collected in the jungles. Now, there are Tea plantations in every direction, from the Rungeet to the far side of the Terai, and very little virgin forest remains under 6,000 feet elevation; while the population, now chiefly Nepaulese, has become almost dense, and is either employed on the plantations or in raising crops for sale to those so employed. The present system of native cultivation, though far from perfect, is very much in advance of that in vogue six or eight years ago, and is another illustration of the truth of the old adage—

“Necessity is the mother of invention.”

A few years ago, when land was but little valued, this or that particular spur was spoken of as *the* place that was, and alone *could* be, ploughed, but now almost every native cultivator has his plough and pair of bullocks, and ploughs most impossible-looking places. Their plough is certainly a primitive looking affair, but a good ploughman makes fair work with it on ordinary slopes, while on the steeper slopes an English plough could not possibly be used. Land is now in much more request, and when a native gets

settled down on a ploughable piece, he cultivates it year after year, builds a much better house than formerly, wears more clothing—even shoes in winter—and bedecks his wives and children with large quantities of jewellery.

A few years ago the (for that time) well-to-do ryot was rather proud of his clumsy Nepaul umbrella of painted cloth and cane ribs, but now he must have an English one, and nothing less than a twelve-steel-ribbed one will suffice. In nothing, perhaps, can the native's prosperity be easier traced than in his style of umbrella. From his mat one to the painted, then to veritable "Sairey Gamps," and so on to the present twelve-ribbed stage. The painted ones are rather a loss to the ornithologist, for on them were often displayed *beautiful* pictures of what are, even to this day, "new and undescribed" species, I might say genera, of birds!

The Tea Industry has certainly been a great benefit to the native. Many of them did not think so, and made a rush across to British Bhootan where the Tea planter is not allowed to follow; but except those situated whence they can take their produce to market they would only be too glad to have Tea planters near them again, and many long to get back to their old quarters. They say, "we can grow plenty of stuff, but without purchasers it is of no use." Their wants and little comforts had increased so insensibly, though surely, that they did not know their lives had been made more comfortable until they got back to the same sort of position they were in before the planter appeared on the scene and bettered their condition in spite of themselves. It is still no uncommon thing to hear Europeans, who ought to know better, talking of the ruinous system of cultivation—or rather non-cultivation, the natives have of taking one or two crops only from the same piece of land, and then moving on to fresh ground. This system—and a bad one it was—used to be carried on, but since some years back it has become an impossibility owing to the increase of population and scarcity of land. The change has been so gradual that many residents are scarcely aware it has taken place. In many parts there are hundreds of acres on end, cultivated year after year with good results.

This radical change—from virgin forests to large tracts of cultivated land—is causing great alterations in the nature of the vegetation, and, no doubt, equally great changes among the birds, insects, &c., which it will be interesting to watch. These being constantly on the move, an increase or decrease in their numbers are not so readily noticed. The smaller plants fall much more under every-day notice than do the larger trees, many of which run great risk of becoming extinct, as the majority of

them in the young state require shelter and shade, while the smaller growing plants, as a rule, only require their bigger neighbours to be cleared away to enable them to spread in every direction to the complete suppression of the giants' progeny. Take for instance the grass known among planters as Seeroo or Ooloo (*Saccharum spontaneum*?) In a virgin forest it is one of the rarest plants, but clear away the trees and keep their seedlings down for a year or two by fire and cattle, and the grass will spring up as if by spontaneous generation—which appears to be believed in by several of the would-be, wise and scientific advisers of Tea planters—to the exclusion ever after of almost every thing else. Many small plants that are now quite common were extremely rare twelve years ago. I remember finding my first plant of the elegant *Davallia tenuifolia*, and for years rarely saw another, but now it is abundant along the sides of the Cinchona roads. A visitor to Darjeeling cannot fail to observe the beautiful, large masses of the European Club-moss (*Lycopodium clavatum*) along the steep banks of the cart road; but let him walk into the forest beyond the opening made for the road, and he will find how rare a plant it naturally is: and many other plants the same.

These changes in the distribution of plants take place so gradually that people constantly living in the place are apt to overlook them. As regards insects, there may still be as many species of moths and butterflies as formerly, but the decrease in the number of individuals, even in my short time, is remarkable. Hooker, in writing of them, says: "They sat by thousands—such an entomological display cannot be surpassed." There is now nothing to equal this description, and Hooker always rather under than over estimates. Snakes, on the other hand, are getting more abundant year by year, but their greatest enemy, the land crab, is scarcer, which may account for the increase. Crabs do not thrive in the grassy jungles which have taken the place of the forest trees, but snakes do, the latter thus gaining a double chance of multiplying.

It is amusing to watch a crab trying to draw a snake that has partly got into its hole. He catches it by one "hand" quite close to the hole and holds it tight till it yields a little, when he clutches it in front with the other, and so on, till the snake either yields altogether or breaks. Usually the crab has to be satisfied with the tail-end on which he makes a hearty meal, tearing it in pieces and handing the morsels into its out-of-the-way mouth in a very ludicrous manner. Those with an unfortunate—for themselves—prejudice against snakes may think that snake-killing is the particular mission of the crab to the warmer slopes of the Himalayas; but I hope, and believe, that

it has a better part to play in the economy of nature than that of destroying our many charming species of harmless snakes.

Every one must have observed the great increase, if not change, in bird-life after a few trees have grown up in places where no trees were before. The former superintendent of the Poomong Cinchona Plantation planted a quantity of *Cryptomeria japonica* about his house, and when they got up to about twenty feet in height the number of birds about them was surprising. Birds appear to have a particular affection for fir trees. Domestic fowls will perch in them in the day-time in preference to any other kind of tree; often, indeed, they would not rest at all were it not for the pleasure of being among the fir branches. I formerly thought that the reason of this preference was that the resinous smell kept away troublesome insects, but a few months ago I saw two jungle cocks feeding in a certain spot in the valley of the Teesta, and as my curiosity was excited on seeing them return to the same spot in a few seconds, I searched, and found they had been feeding on fleshy seeds with a strong resinous smell; so, perhaps, fowls and other birds have a fondness for resinous substances. Be the reason what it may, fir trees have a special attraction for birds.

Since we got up trees and large bamboos round the Cinchona Bungalows at Mongpoo, the increase in the number of birds is amazing. Many people object to trees and bamboos near their houses under the idea that they shelter mosquitos and other insects, but as far as my experience goes these prefer sticking among, or near the leaves to coming into the houses. We have not more mosquitos now than we had when we were comparatively bare, but even were there many more—which I by no means admit—the large flocks of *Pericrocotus speciosus* that visit us daily are, alone, sufficient to recompense us for numerous bites, and to rejoice the heart of any lover of birds.

We have a few old trees with dead tops, which, when we first came to the place, I thought, in my consummate ignorance, should be cut out as useless and unsightly, but we soon saw that the birds considered the dead tops to be the most useful parts of the trees by a long way, and we wisely left them alone. Now we are daily repaid a thousand fold. In the spring mornings and evenings that lovely songster, *Copsychus saularis*, pours forth its sweet song from the dead tops. At this season (September) it is pretty to see the long rows of *Artamus fuscus* seated on them in the evenings, as close together as they can pack, occasionally one or two dropping out of the ranks for a short sally after insects, and sometimes altogether taking a flight for a minute or two, keeping up a continual, pleasant, twittering noise. *Collyris nigriceps* often regales us with a pretty, though rather

feeble, song from these dead tops, and many other birds are regular frequenters of them. The moral of all this is: never cut away a dead tree top if you wish to do the birds a good turn. Man is far too ready to take it for granted that everything in this world has been made for his sole use and benefit and to act in a cruel and inconsiderate manner towards what he is pleased to call the *lower* members of the animal kingdom, Not very long ago I heard a high official, of an imaginative turn of mind, wonder why there should be inaccessible ravines filled with trees where they could be of no earthly use that he could see, quite overlooking the evident fact that the world was not made for the exclusive use of mankind. I was not so rude as to say so, but I thought "were you a Hornbill, or Bear, or Monkey, or even a wild Pig, you would wonder why there should be any other sort of places." These inaccessible spots now provide more food, and safer breeding places for many birds and other animals than all the gentle slopes put together.

Our first pair of Mynahs (*Acridotheres tristis*) made their appearance about five years ago. They, and their progeny, have bred with us every year since, and now there are one or two good-sized flocks of them. To my great disappointment they shun our house, which is on a dry ridge; and keep near another house about half a mile distant. It has a stream near it which may be the attraction. Its occupier was very proud of his Mynahs, and though he knew how disappointed I was that none of them would come our way, would, every time I went across, say with a most tantalizing smile of exultation, "You see the Mynahs stay with me." But this was endurable compared with his crowing about a one-legged *Motacilla luzoniensis* which took up its quarters about his house. There it stuck, month after month, without moving forty yards away, and never once came near us. It was a lovely specimen, as plump as it could be, and not a feather out of place, and so tame. It would pick up bread crumbs and rice—rather unusual for a Wag-tail, I think—from under our feet. At night it perched on the ledge of a warm chimney. It really was a treat to see the little creature hopping about so nimbly on its one leg, and looking so comfortable and contented. How I envied its possessor, to be sure! I would sometimes point out our Minivets, Spider-hunters, Swallow Shrikes, &c., when he came our way, but he would, with the most superior air, say, "Oh! Ah! they are very fine, but you, should just come over and see my one legged Wagtail," and then I could but swallow my envy and mortification as best I could, and admit the inferiority of our possessions. It stayed on till well into the rains, long after all its tribe had left for

their breeding quarters, and we hoped it would always remain, but one morning it was missing, and has never returned.

One pair of our Mynahs, at least we claim them, went across the valley this year to a Tea planter on the next ridge. He is a Pigeon-fancier, and had a cot of eight holes nailed up against his house for his pigeons to breed in. The one pair of Mynahs drove out all the pigeons, built a nest in every hole, or rather stuffed them full of grass, to keep full possession I suppose, and brought up a fine brood in one of them. The pigeons were very much afraid of them and never ventured near. The planter did not like to see his pigeons ousted in this unceremonious manner, but, as he said, he admired the impudence of the Mynahs too much to drive them away. Mynahs may do great good to Tea planters in keeping down grasshoppers, which often do much injury to young Tea plants.

*Centropus bengalensis* has increased largely of late. Among grassy scrub, up to 3,500 feet, it is now abundant, where, only a few years ago, it was rarely to be found. In the earlier part of the rainy season its odd, monotonous notes are to be heard in every direction. I am not sure that the male calls, but have shot the female—as I found by dissection—when calling. It has a call of a double series of notes: whoot, whoot, whoot, whoot; then often a pause of four or five seconds, kurook, kurook, kurook, kurook. The “wheet” is quite ventriloquistic, sounding as if it came from a distance of six or eight yards from the bird. Before calling, it seats itself about five feet from the ground, then you see it draw its neck and body together, slightly puffing out its body feathers, raising its back and depressing its tail, and for every “wheet” there is a violent throb of the body as if the bird was in great pain, at the same time the motion of the throat is scarcely perceptible and its bill is closed. Then, as if greatly relieved, it stretches itself out, the feathers fall smooth, and with open mouth and throbbing throat comes the “kurook” without the slightest attempt at ventriloquism. When searching for the caller one must take no notice of the “wheet” but wait for the “kurook.” It feeds almost entirely on grasshoppers, and frequents the open, scrubby tracts only. I have never once seen it in larger forest.

*Geocichla citrina* is another bird that has become common in the shady Cinchona plantations. Until a year or two ago, I never saw it except near the bottoms of our warmest valleys, and in the Terai, where it is abundant, but this year we have it in large numbers up to nearly 4,000 feet.

We have a patch of plantains and a few plants of *Passiflora edulis* near our house, which are great attractions to *Arachnothera magna*. At first they were rather shy, but lately they

have got bold enough to feed within a few yards of us. Jerdon says he "found it at Darjeeling from the level of the lowest valleys to about 3,000 feet only, generally frequenting high trees, and picking various insects off the flower, buds and leaves." This account is a mistaken one, as is also his description of the nest. It occurs up to 6,000 feet, generally frequenting the wild plantains and smaller trees, and picks insects\* out of the open flowers, as might be guessed from the length and formation of its bill. When the passion flowers are open, they hunt them over several times a day, but plantain flowers are their favorite hunting grounds, and deftly do they insert their bills in one flower after the other, now and again pausing in search to give tongue to their sharp "tirik," "tirik." It is not a very abundant bird anywhere, but as it is of a solitary disposition, and never moves from one place to another without uttering its peculiar, and unmistakable call, it is, perhaps, oftener seen than many birds that are very much more numerous. A pair are about our compound this September, feeding a fully-fledged Cuckoo, (*C. micropterus*) quite strong on the wing, but evidently too lazy to forage for himself so long as he can get this foster-parents to feed him. It looks absurd to see the little creatures feeding a great bird like this Cuckoo. They appear to have hard work in keeping him satisfied, but are evidently proud of their charge. My friend Mandelli insists that we have two species of *Arachnothera* in the district, and he is usually right in his assertions.

A marked instance of how rapidly animals increase in numbers under extra favorable circumstances occurred in Sikhim in 1867-68 when one of the small hill bamboos, flowered and seeded simultaneously all over Sikhim, as is its habit to do about once in five and twenty years. The increase in the number of rats, caused by the extra amount of food, was something marvellous. The seeds yielded by the large masses of bamboos were more than sufficient food for them, and as long as they lasted, the increase went on at an alarming pace. When that food-supply ceased they descended in such legions on the maize fields that on every cornstalk, almost, might have been seen several rats. After the remnant of the corn crop had been harvested, the legions of rats diminished as suddenly as they had increased. So rapid, at these times, are both the increase and decrease that the natives have the idea that they come up the river beds from the plains to eat the bamboo seed, and afterwards take their departure by the same route, which is, of course, absurd. Birds, as they breed fewer times in the year, cannot increase so rapidly as the rats did; but

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\* It is for the nectar rather than the insects that the spider-hunters chiefly visit the flowers.—ED., S. F.

then many of the great changes made in the vegetation by large clearances, are permanent, instead of being temporary, as in the case of the seeding of the bamboo, which give those, whose food-supply has been permanently increased by the changes, the better chance in the long run; and a corresponding disadvantage to those whose food-supply has been for ever diminished. If Tea planters would only study ornithology, or any other branch of natural science, they would soon discover for themselves how quickly changes in the nature of the vegetation affect the distribution of different animals, and such knowledge would be very suggestive of the causes of the multiplication of the insect pests which affect their tea bushes, and might lead them on to think of either preventives or cures. The utter nonsense that has been published about tea pests of late by empirics could have never for a moment been listened to by men with the slightest knowledge of animal or vegetable physiology; but I must not enter into Tea subjects here.

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### A List of Birds collected and observed on the Palani Hills.

BY REV. S. B. FAIRBANK, D.D.

ELEVEN years ago the state of my health required me to leave my home in the Dakhan and seek its restoration by a sojourn of some months at a mountain sanitarium.

Providence kindly sent me to Kodaikanal on the Palani Hills. I was allowed to stay there for ten delightful months, and came away with the assured opinion that the climate of the Palani Hills is as near perfection as that of any spot, at least, in India.

It may have been exceptionally fine that year. It was continual Spring. Rain fell in every month, and just about as we needed it. Not less than three inches and not more than eight inches of rain fell in each of those consecutive ten months. At our house, which we called Rose Cottage, because it was always embowered in roses, the thermometer did not fall below 50°, nor rise above 75°. We needed a fire every evening and had a cosy wood fire in an open fireplace.

During some years there are months when no rain falls, and sometimes there are storms with high winds and heavy rain. Some tell of cold snaps when ice is formed on the surface of the lake. That year we *had* ice at Christmas, but only enough to make ice cream to accompany the strawberries that were just then most abundant. The ice *grew* in stalks,