

The frilled shag is, owing to its cautious habits, called the "duck-scarer" by the sportsmen living in the above-mentioned Sound.

The spotted or king shag is apparently yearly increasing its range; the rocky islets off Jackson's Head have long been frequented by considerable numbers. Two immature birds brought to me from White's Bay were, so their captor said, "jist gittin' their toppins." It also frequents the sea-shore near Cape Campbell, the Flaxbourne Station, as well as a station to the south of Cape Campbell—localities all widely separated.

Crested Penguin (*Eudypetes pachyrhynchus*, Gray).

Several specimens during recent years have been secured in various localities. Two specimens now on sale here were captured in Queen Charlotte Sound.

Blue Penguin (*Eudypetula minor*, Forst.); **Little Penguin** (*E. undina*, Gould).

Both numerous.

ART. XXXIV.—*Bird-life on a Run.*

By H. GUTHRIE-SMITH.

[Read before the Hawke's Bay Philosophical Institute, 12th August, 1895.]

THE natural history of New Zealand at present is in a transition stage. The importation of new animals, the wide distribution of firearms, the felling and stocking and draining of country are all important factors in the great alterations that are occurring hourly in our colony. The indigenous creatures are being subjected now to a competition unknown before. In every direction they have to face changed surroundings, and this we shall see more or less in the paper I am about to read.

The natural history of New Zealand, however, is too large a theme to be treated to-night, and I shall confine myself to a branch of this interesting subject—bird-life on a run. I may state that the run here spoken of lies about twenty-five miles north-east of Napier. The nearest point lies about seven miles from the sea. There is a lake about three miles long in the centre of the property. The hills are limestone, and rise to about 1,600ft. In one part of the run there is a strip of pumiceous country. Some of the land is still in bush, some in fern, some in swamp and raupo and flax. For years,

however, most of it has been grassed. When this block was taken up fifteen years ago very little work had been done there. The place was mostly in its natural state of fern, bush, and swamp. It has been easy, therefore, to note the arrival of foreign species, the disappearance and growing scarcity, and sometimes, though more rarely, the increase of the indigenous birds.

As the British and Australian birds are still comparative strangers, they may be given first place. Even when the run was first taken up larks and Australian swans had preceded us. The English lark, however, cannot here boast of his early hours. Those who dwell in tents hear the harsh screech of the kaka and the liquid notes of the tui long before the lark has stirred. When the silence of night still reigns over the bush, and the hushed murmur of the forest-brooks alternately grows and fades in the ear, it is the brown parrot and the parson-bird that first enliven the expectant woods. It is only later, when the shepherds brush from the dew-soaked scrub the hanging drops, and the last stars pale and fade, and the steam of the little waterfalls rises on the sharp, keen morning air, that the lark sings in the grey dawn.

Although it would be natural to expect the black swan should be fairly numerous on our considerable sheet of water, this is not the case. Whether because there is no feeding in the lake, or for some other reason, swan have never been plentiful. Indeed, though so near the Napier lagoons, these birds may here be actually called rare. Sometimes in the dawn their music may be heard high overhead, and sometimes for a few days a brace will remain. The absence of reeds and raupo-beds seem to be distasteful to many of our water-fowl. A brace of Australian magpies in 1888 took up their abode in a clump of native bush close to the homestead. Unfortunately they were shot, and no others have taken their place. At a neighbour's run a pair of these birds were the terror of travellers going along the Wairoa Road. The shepherds' main track, too, passed close to their nesting-tree, and it was amusing to notice the woebegone appearance of the colliers as they neared the fatal spot. On one occasion one of these magpies actually knocked the hat off a specially-obnoxious swagger who happened to be travelling up the coast.

Birds do not, however, always come in pairs; indeed, from the fact that the few rabbits killed at intervals of years in this part of the coast have been forlorn bachelors, it seems not unlikely that the earliest arrivals on new ground are outcasts driven from the parent colony. Many years ago, during two successive springs a minah appeared on the place. It used to sit disconsolately outside the fowl-yard seeking to chum up with the hens, who rather scornfully rejected its advances.

For the last three seasons one or two brace of minahs have appeared. This year, as the birds were evidently looking for a building-site, I had a box put up in one of the pine-trees. It was an open box, not at all adapted to the habits of the bird. However, in spite of this, a nest was built and eggs laid. I believe that normally these birds build in holes of trees or stacks, or under eaves of houses; at any rate, they attempted to remedy the defects of their open box, and the eggs were found covered with willow-leaves. Whether to hide the pale-blue eggs or whether to shield them from the sun, there is something in this action that seems almost to transcend what we term instinct. I recollect the arrival of the first sparrows, and how pleased we were to hear their merry chattering. How dependent on man and his requirements are the numbers and habits of the inferior creatures is well illustrated by the history of our sparrows. They, too, like man, are dependent on events taking place at the other end of the world, and for which they are in no degree responsible.

The earliest improvements on the run were done by white men, and while they were resident on one spot our sparrows increased and multiplied. At a later period all improvements were stopped, and the sparrows decreased. When work was again started, for various reasons native labour was employed, and the men were camped out. Sparrows abhor such temporary quarters as tents, yet their numbers began again to swell. Later again they increased enormously when oats were grown, rising in clouds from the grain and filling the pine-trees with their untidy nests. The development of the frozen-meat industry, however, was a serious blow to their interests. We found then that turnips were the best-paying crop, and ceased grain-growing. At present only a few couples reside at the homestead and woolshed.

About six years ago a cock goldfinch appeared in spring. I used to see it as I went over to the woolshed day after day. It was always alone, and, as none of us observed young birds later in the season, I do not think the female was sitting. Next year, however, it reappeared about the same time and on the same spot, this time with a wife. Goldfinches are now very common. Their plumage of red and gold ornaments the autumnal thistle-tops. In the garden and lawn they may be noticed gathering their food from the sow-thistle, and bending the hollow stems of the seeding dandelions. Yellowhammers and linnets are pretty numerous.

Five years ago the first thrush was heard, and now they have considerably increased. They do not seem to particularly haunt the homestead, but live in patches of scrub in various parts of the run. Thrushes do not seem to do very well in Hawke's Bay—at least, I have not often heard them

in the shrubberies, or seen them on the lawns. For the last three years during winter flocks of starlings have been noticed on the run.

In one small patch of bush a peahen has lived alone for three or four seasons. I believe there are no other examples of this breed within twelve miles.

A blackbird has been heard in the Matahaura Gorge, on the Napier-Gisborne Road.

Of game birds I have seen pheasants, partridges, Australian and Californian quail. The partridges have utterly disappeared, probably also the Australian quail. The pheasants and Californian quail still fight it out with rats, cats, dogs, weasels, wekas, and lastly man. In all, fifteen species of imported birds have been noticed on Tutira up to July, 1895.

Of the 176 New Zealand birds enumerated by Sir Walter Buller, no less than thirty-five have been observed on the run. Taking into consideration the species only to be found in the South Island, the sea-birds, the Chatham Island representatives, and these Australian birds, which are really but visitors, I think the number is large. As out of the nine ducks native to the Island seven have been observed on the run, the swimmers may first be considered.

The paradise-duck, once a pretty frequent visitor, now appears but rarely. The traffic and the shepherds and barking of dogs may be the cause, though not altogether, for on two occasions I have seen a brace of these birds not sixty yards from the Petane Hotel on a paddock close to the road. This handsome sheldrake offers a good example of double sexual selection; and of all birds that simulate lameness the paradise-duck does so most perfectly. Throughout the Mackenzie Country, in the South Island, this bird is very common. At the head of Lake Tekapo, under the glaciers and streaks of perpetual snow, while angling I have watched with interest the stratagems used to decoy me away from the eggs or ducklings, the bird now trailing a broken wing, now dropping on an injured leg. On the smaller pools and lakelets the brown duck is pretty numerous. He is a tame little fellow, and takes to flight with some unwillingness. The grey duck we have also, but few of these birds abide with us. Even when shooting is going on at other spots the grey duck does not stay.

Last year a shoveller rested for a short time on one of the smaller lakes. About seven years ago, after a violent southerly gale, a brace of blue ducks appeared on the lake. Although the "whio" or "whistler," as the natives call it, is fairly plentiful, this is the only occasion it has been seen away from the haunts peculiarly its own—the rushing, shadowed creeks half-blind with fern and koromiko. I have given orders that

this delightful bird shall be in no way molested, for there are few sounds more characteristic of wild New Zealand than the startled, half-indignant whistle of the mountain-duck. Dipping from the summer's sultry heat into some deep fern-feathered gorge, I have often paused to watch him. The little waterfalls dash into diamonds on his slate-blue plumes. He is thoroughly at home in the bubbling champagne pools. Where the swift stream shows every polished pebble clear he can paddle and steer with ease.

Throughout the year there are numbers of the scaup, or black teal. I have been surprised at what the historian of our New Zealand birds says of its powers of flight. He remarks, "Its powers of flight are very feeble; it takes wing with reluctance, and never rises high in the air." At a shooting party, when guns have been stationed round the lake, and boats worked for a couple of hours, I have seen nearly every black teal leave the lake. Gathering into flocks, they would rise as high as three hundred yards, and, circling higher and higher, disappear. The birds did not usually reappear for several days. Of the white-winged duck a single specimen was procured last year.

The skies of New Zealand would be very different without the harrier. Over every acre of the run he hunts industriously, flapping lazily over the fields of fern, or sailing high in air, a patch of brown against the blue. We have also the fierce and bold little sparrow-hawk. I have seen one of them strike a chicken at the very kitchen-door. In the course of their strong low-level flight they seem to know no fear, and disdain to move aside even for man, passing with hardly a swerve close above his head. Often when mustering sheep the scared collies have returned to me hunted back by this resolute little hawk. He builds in ledges of cliffs, and the great harrier, when near his nesting-place, is furiously assailed. The little hawks utter a kind of neighing scream; for usually both male and female attack the intruder. Circling above their foe they swoop upon him, while the harrier, hard-pressed, turns completely over on to his back, stretching out in defence his terrible talons.

Of the two native owls I have never heard the laughing cry of the almost extinct *whেকau*. The solemn little *morepork* is pretty common. As a rule he rests from hunting and rapine during the day; still, even in the light he will throw no chance away. Mr. Sidney Brandon, who is an accurate observer, and to whom I am indebted for help in this paper, noticed on one occasion a flight of blight-birds settle within reach of a *morepork*; who instantly reached out a claw and seized one of them.

During late autumn and winter the kingfishers begin to

come in from the outlying parts of the run. The head and long projecting beak give them rather a jockey-like appearance. During heavy rainfalls many of these birds congregate in the garden. There, selecting the low bough of an orchard tree, they wait for the drowned or wandering worms. The moral character of the kingfisher does not seem altogether above reproach: on one occasion I saw a small chick killed, and for no apparent purpose. The kingfisher will also kill canaries as they cling to the wire of the aviary.

A rather remarkable instance of aberration of instinct in the kingfisher came under my notice three years ago: the bird had begun to bore into a rotten stump not more than a foot or so in width, and therefore quite unsuitable for nidification. Our kingfisher's eggs are as round as those of the British species.

Of the honey-eaters we have two—the tui and the wax-eye or blight-bird. To those who have been once only in our New Zealand woods it is unnecessary to dilate on the tui. Throughout the years, almost at any hour, even through the warm, light summer nights, his pleasing notes blend with the unceasing rustle and stir of leaves and the sound of the wind in the tree-tops. In its wild state even the tui is an accomplished mimic, taking off the squeal of the wild pigs particularly well. Mr. Brandon tells me that not infrequently his collies have mistaken its imitation of a shepherd's whistle for the genuine article. One nest I examined was built of small branches of manuka, lacebark, lichen and mosses woven together, while the delicate, white, rather long eggs lay in a thick bed of the brown glaucous hair of the tree-fern's crown; a second was built entirely of the little jagged branches of the lawyer, and lined with bush-grass and a few feathers.

The little blight-bird's history in the North Island has been fully given by Sir Walter Buller. With us it is one of the native species that has increased greatly of late years. These birds roost in large flocks in the fern—at any rate in summer. Often I have startled them out of their cover at dawn. In spring, when nestling, they are exceedingly tame, and do not seem in the least alarmed or shy, even of an observer within 6ft. of their nest. They will hop about quite unconcerned, or, sidling up, will press close to one another like love-birds. A glance at one of their nests will reveal the great alterations that have taken place in the natural history of New Zealand within the last few years. First of all, the bird itself has only lately come to the North Island; and one nest I got was composed of Yorkshire-fog grass, a few fowl-feathers, and hair of horses and cattle—every material alien to the colony. Few sights are prettier, I think, than to watch the wax-eye nimbly threading its way through the prickly mazes of a box-thorn.

hedge—the colours of the bird, the bright scarlet berries, and the deep verdure of the leaves forming a pleasing picture. Ordinarily these birds have a joyous twitter. In early dawn, however, when waiting for the sheep to appear and amusing myself by birdnesting, I have heard them uttering what I can only term a whisper-song. The notes are so very low that they could not be heard further than a few feet.

In the many small raupo-beds around the lake the little fern-bird may be heard rustling. “Fern-bird” is rather a misnomer nowadays, for, whatever the habit of the utick may have been, I have never yet, though riding over hundreds of miles of fern-country in the course of the year, observed the bird in this kind of herbage. Ordinarily this species is very shy; but in spring the male loses to some extent his timidity. He will then, regardless of the presence of man, mount to the very top of a flax-stick, climbing up in little runs, like a mouse or a house-fly. His tail is all the while bent in towards the stem. Indeed, like a young bird swung in the air, the utick seems to use his tail for balancing.

Among other small birds we have the grey warbler, whose delicate pensile dome-nest is built of moss, then thistledown, and lastly feathers. The pied tit also is to be found on the run: it is one of our rarest birds. The pied fantail, on the other hand, is one of our commonest species, and adds another charm to our native woods. He does not like the wind, but in the forest-paths, when the chequered light or shade hardly moves on the nibbled grass, he unceasingly flutters and flits. Along the bubbled brooks he dances above the drooping koromiko and tutu. This fairy of our bush is, however, a hardy little creature. Often I have seen him hunting for flies in pelting rain, when the boles of the great pines were water-pipes, and from the patter and splash of the big drops a gritty mist arose from the soaked earth. He never remains for any length of time in the air, after a short flight or hover alighting for an instant and then darting off once more. I am inclined, after a good deal of observation, to think that, at any rate on some occasions, he deliberately furthers his work of securing food by perching on outlying boughs and thereby shaking out the minute insects.

Another of our native birds is the pihoihoi, or ground-lark.

Once or twice I have noticed parrakeets, but at too great a distance to be sure of the variety. We have the brown parrot too. On some gaunt and ghostly forest monarch, standing barked and battered above the fallen bush, the kaka may be heard harshly denouncing the spoilers of his sylvan home. Besides the felling of timber and subsequent bush-fires, the English bees are also affecting the chances of the kaka in the

struggle for existence. Twice in taking wild swarms I have found egg-shells among the broken bark and dust. On several occasions the whekau, or laughing-owl, has even been stung to death, and this may happen to the kaka also. There is no doubt, at any rate, that the bee has often usurped his hollow tree.

Both our cuckoos arrive about the first week in October. The long-tailed species is rare, but the shining-cuckoo may be heard everywhere during the early summer months. It loves, like the tui, to perch on the top of some bare bough. From beneath I have often watched the music brew and bubble in its bronze-brown throat. This cuckoo fairly swarms in the bush between Mahia and Gisborne. Upon one occasion I heard the pipiwarauroa whistling within a few minutes of midnight.

Twelve years ago I knew a couple of natives shoot eighty pigeons in a day. Their numbers have sadly fallen off since that time; not a quarter that number are now killed during the whole season. They are easy to shoot, and good to eat; but it seems a pity that these confiding birds should, from these very qualities, be unfit to survive.

One of the rarest birds, perhaps, that has ever visited the station is the kotuku, or white heron. Buller describes it as wild and shy; yet upon its first appearance here I rode directly beneath it. It was on the top bough of a large willow, some 50ft. or 60ft. from the ground, and perhaps because I had no gun, or because it was tired after a long flight, I was allowed to admire at leisure. A few hours later a native fired at the bird. We saw it once again, sailing up the lake, snow-white between the blue of water and sky. Certain feathers of the kotuku were in old times used to ornament the heads of chieftains, and the natives about us have a tradition that one of these white herons after being seen at the Tongioio lagoons will next appear at Tutira. On two other occasions we have had visits from these graceful birds.

Another smaller variety of the heron family—the bittern—is more common. Sir Walter Buller remarks concerning this bird, "If unmolested it may be observed stalking knee-deep in the water in search of food, with its neck inclined forward, raising its foot high at every step as if deliberately measuring the ground." Watching the bird, I am inclined to believe this high action is assumed in order not to dim the mirror of water, and thereby dull the vision of fish.

In the early days of the run I think the weka increased in numbers; now, however, the bird is getting rarer. Its cry resembles the weird moorland call of the curlew, and there are few prettier sights than a brood of lively black weka-chicks.

At long intervals, and then only for a few moments, is seen the little water-crake. Upon one occasion, however, though it is rare to see them fly, I noticed three together on the wing. Mr. Brandon describes the call, or one of the calls, of this bird as being not unlike the sound of raupo-stems crushed.

The beautiful pukeko, once a very common bird, was very nearly shot off the run while I was in England for two years. Even now that none have been killed for three years they hardly appear to increase. It seems that when once a species gets scarce it is apt to altogether disappear. "Whether this is because the vermin that swarm in New Zealand have more time to spare to attend to the survivors or for some more subtle reason I do not know. The pukeko, if let alone, becomes very tame, and in spring especially loses its wildness still more. These birds are fond of grain. With their powerful beaks they used to pull the oat-straws out of our stacks. This they did with care, so as not to break the stems and thereby lose the grains at the end.

Another lake-bird is the little dabchick. As we hear the short-tailed puffin at night flying overhead, I count it also as one of our Tutira birds. It is called by the bushmen the "mutton-bird," but can be only, I think, *Puffinus brevicaudus*.

The black shag may any day be seen spreadeagling himself on some dead log, and darting his snaky neck first in one direction and then another. The white-throated shag, though rarer, is also to be found on the lake.

Of stray sea-birds we have three species on the station—or, rather, have had, for their stay is usually very brief—the common tern, the godwit (I think), and the dove-petrel. This last bird flew down to the fire beside a native hut. When offered water to drink, or even at the sound of water, this petrel would begin to shake its wings, duck its head, and go through the motions of a bird washing itself in deep water.

This last species brings the number up to thirty-five, and completes my paper on "Bird-life on a Run." I fear that I have not been able to tell you a great deal that is new, but perhaps the enumeration alone of species that have been and are on the run before or during 1895 may be of use to some future student of bird-life in New Zealand.
