

Springs district, and that he has observed as many as a hundred together in Kaiteriria and Rotorua lakes. On their habits, he has furnished me with the following notes:—"In 1869 I was riding along the shores of Tikitapu Lake with H.R.H. the Duke of Edinburgh, when our attention was arrested by a pair of these birds with their young. We drew up and watched them for some time. Taking alarm at our approach, the female took her five young ones on her back and made several dives with them, coming up after each submersion at distances of ten yards or more. The young birds appeared to nestle under the feathers of the parent's back, and to hold on with their bills. In this manner they continued to dive till they were entirely out of sight, and H.R.H. appeared to be much interested in this singular performance."

ART. XX.—*Further Notes on the Ornithology of New Zealand.* By WALTER L. BULLER, C.M.G., Sc.D., F.L.S.

[*Read before the Wellington Philosophical Society, 12th January, 1878.*]

CIRCUS GOULDI, *Bonap.*—Harrier.

IN the "Birds of New Zealand," page 15, I have described a very beautiful albino specimen obtained by Mr. Goodall at Riwaka, and preserved in the Nelson Museum. During a visit to the Lake district last year I saw another, apparently very like it, hovering over the fern ridges that close in the intensely blue waters of Tikitapu. As he swooped down upon a rat or lizard in the fern, his under-parts appeared to be perfectly white, and the upper surface of the body and wings ashy.

HIERACIDEA FEROX, *Peale.*—Sparrow-hawk.

A pair of these birds bred for two successive seasons on a rocky crag at Niho-o-te-kiore. They guarded their nest with great vigilance, fiercely attacking all intruders.

I may mention that this species, unlike the generality of hawks (so far as I am aware), may be attracted by an imitation of its cry. Riding alone one fine autumn evening through the country at the northern end of Lake Taupo on my way to Ohinemutu, I saw what appeared to be a sparrow-hawk come out of the bush at some distance and descend into an old or deserted Maori garden. By way of experiment I imitated the clamorous cry of this bird when on the wing; and in a few minutes the hawk (a fine young male) came sailing up to me and performed several circuits in the air immediately overhead, and then took up his station on the dry limb of a tree close by the road, where he remained till I was out of sight.

PLATYCERCUS NOVÆ-ZEALANDIÆ, *Sparrrm.*—Red-fronted Parrakeet.

The Hon. W. Fox, who has just returned from a trip through the Canterbury district, informs me that the farmers have suffered this season a visitation, tens of thousands of these birds having descended on their ripening crops of corn and proved almost as destructive as an army of locusts. It is difficult to account for these occasional irruptions in such numbers, in the case of a bird not otherwise plentiful.

STRINGOPS HABROPTILUS, *Gray.*—Owl Parrot.

Until within the last few years the kakapo abounded in the Urewera country, and the natives were accustomed to hunt them at night with dogs and torches. The Maori proverb, "Ka puru a putaihinu" relates to the former abundance of this bird. The natives say that the Kakapo is gregarious, and that when numbers of them congregated at night their noise could be heard to a considerable distance. Hence the application of the above proverb, which is used to denote the rumbling of distant thunder.

It is said that the kakapo is still abundant on the wooded ranges of the Kaimanawa, in the Taupo district.

HALCYON VAGANS, *Less.*—New Zealand Kingfisher.

Reverting to an old controversy between Captain Hutton and myself,* in which I maintained the piscivorous habits of our kingfisher, under certain conditions, I may add to the argument the following note lately received from Captain Mair:—"The kingfisher is found in all the mountain streams of the Urewera and Bay of Plenty districts. It subsists largely on small fresh-water fish (mohiwai of the natives), also on flies, moths, and beetles. Referring to your interesting account of its nesting habits in the 'Birds of New Zealand,' I may mention that I have found three or four pairs building in close association in a clay bank, and that on one occasion I counted ten pairs boring in the standing trunk of a dead and decaying rimu. I have never found more than five eggs in a nest."

ZOSTEROPS LATERALIS, *Reich.*—Silver-eye.

I have lately had an opportunity of examining a beautiful series of the nests of this species, and through all the variety of individual form and structure they preserve two essential features—namely, the large cup-like cavity with thin walls, and the admixture of long hairs in the lining material. I have already mentioned† the circumstance of pigs' bristles being pressed into the service in a part of the country not much frequented by horses or cattle; and in one of the nests forming the above series, the proximity to civilization was proclaimed by a lining consisting of the flaxen hair from a child's doll!

* "The Ibis," Jan., 1874, "Trans. N.Z. Inst.," VI., p. 129.

† "Trans. N.Z. Inst.," VIII., p. 183.

The history of the first arrival of this pretty little bird in the North Island in 1856 is too familiar to need repeating. It was several years before it became acclimatized, but once fairly established amongst us, it has continued to increase and multiply, and now it disputes possession of our gardens and hedgerows with the introduced sparrows and finches, and swarms all over the country. In the Bay of Plenty district it is said to be particularly plentiful, so much so as to form an article of food to the natives. They are in season in the months of March and April, and are then collected in large numbers, singed on a bush fire to take the feathers off, and forthwith converted into *huahua* and potted in calabashes. The catching is effected in a very primitive way. The birds have their favourite trees upon which they are accustomed to congregate. Selecting one of these, the bird-catcher clears an open space in the boughs and puts up several straight horizontal perches, under which he sits with a long supple wand in his hand. He emits a low twittering note in imitation of the birds' and, responding to the call, they cluster on the perches, filling them from end to end. The wand is switched along the perch, bringing dozens down together, and a boy on the ground below picks up the stunned birds as they fall. Captain Mair, when visiting Ruatahuna on one occasion, had brought to him, by two Urewera lads, a basket containing some five or six hundred of these little birds which had been killed in the manner described.

In front of the Rev. Mr. Spencer's house at Tarawera, in a hedge of *Laurustinus*, scarcely six yards from the door, upwards of twenty nests of *Zosterops* were found at one time, each containing from three to five eggs (generally the former) of a lovely blue colour. Usually, however, these birds do not breed in communities but scatter themselves in the nesting-season.

MYIOMOIRA TOIROI, Reich.—Pied Tit.

This familiar little bird, the "Tomtit" of the colonists, is far less plentiful than it formerly was in our fields and gardens. There seems no reason to fear, however, that the species is dying out, for in the *Fagus* forests of the interior I have found it extremely plentiful. In the woods at the foot of Ruapehu and neighbouring high lands, where, save the occasional twitter of small birds in the branches, all is silent as the grave, this pretty little creature is always to be met with. It flits noiselessly from one tree to another, then descends to the ground, and in a few instants reappears on its perch, flirting its tail upwards, and emitting at intervals a soft, trilling note of exquisite sweetness. Destitute of animal life as these sub-alpine woods undoubtedly are, they are not without their attractions. Owing to their high elevation vapour-clouds are continually hanging over them, causing a perpetual moisture. In consequence of this the trees on

their outer facies are more or less covered with kohukohu, a feathery fungus of a pale green colour, hanging like drapery from the branches, while their trunks and limbs are clad to their very tops with the richest profusion of lichens and mosses. The underwood is one mass of cryptogams, and the very ground is carpetted with beautiful mosses. No idea can be formed of the quasi-tropical richness of these woods in this respect by any one who has not actually visited them. On the outskirts small flocks of *Zosterops* consort together in the underwood, and a few flycatchers and whiteheads share the solitude with the sober tomtit; but as we enter the woods the stillness becomes oppressive, unbroken even by the chirp of a cricket or the drumming of a locust, and the only sign of animation is an occasional night-moth lazily flapping its wings in the gloomy shade of the forest.

SPHENEACUS PUNCTATUS, *Gray*.—Common Utiek.

During my recent visit to the Lake district, I found this little bird plentiful in all suitable localities. In the marshy tracts occurring at intervals along the road from Taupo to Ohinemutu its familiar note was the only animate sound in those quiet solitudes; and it was always pleasant to hear a pair of them singing a duet, their plaintive notes being always in harmony and responsive.

CREADION CARUNCULATUS, *Gmel.*—Saddle-back.

This species is very irregular in its distribution. I have endeavoured to describe its range in my "Birds of New Zealand." I omitted, however, to mention that in one locality north of Auckland—a small wood at Kaitaia called Mauteringi, some three or four miles in extent—this bird is comparatively plentiful, although rarely ever met with in other parts of that district. Although never seen in the Bay of Plenty woods, it is numerous enough in the Ngatiporou country, where the natives regard it as a bird of omen. A war party hearing the cry of the tieke to the right of their path will count it an omen of victory, but to the left a signal of evil. It is also the mythical bird that is supposed to guard the ancient treasures of the Maoris. The relics of the Whanauapanui tribe—*mere pounamus* and other heir-looms of great antiquity and value—are hidden away in the hollow of a tree at Cape Runaway, and it is popularly believed that the tieke keeps guard over these lost treasures. According to Maori tradition, among these hidden things is a stone *atua*, which possessed at one time the faculty of moving from place to place of its own accord, but has since become inactive.

The natives state that this species usually places its nest in the hollow of a tree, and they point to holes in well-known trees where the tieke has reared its young for many years in succession. A pair is said to be

still breeding in the hollow of the famous tree at Omaruteangi, known all over the country as "Putatieke."* The bird is accordingly regarded with some degree of superstitious reverence by the Arawa, who will not allow it to be wilfully destroyed. Those who have read Maori history will be familiar with the story of Ngatoroirangi and his sacred tiekes of Cuvier Island. Hence the proverb, "Manu mohio kei Reponga," commonly applied to a man wise in council, and used in the sense of our own proverbial saying "Old birds are not to be caught with chaff."

As the question of the specific value of *Creadion cinereus* is still unsettled, it may be mentioned here that Captain Mair, who has been familiar with the bird for years, has never seen one in the plumage of the so-called *cinereus*, supposed at present to be the immature state of *C. carunculatus*. If this form is in reality the young of the ordinary species, it is astonishing that it has never yet been met with in the North Island, although common enough in the South.

GLAUCOPIS WILSONI, *Bonap.*—Blue-wattled Crow.

During the autumn months this bird is comparatively plentiful in the Mangorewa forest between Tauranga and Rotorua. The traveller at this season frequently meets with it hopping about along the road or among the bushy branches of *Solanum* on either side.

There is a fine albino specimen in the Colonial Museum, obtained in the Rimutaka ranges and presented by Mr. G. Elliotte, who had it alive for several months.

PORPHYRIO MELANOTUS, *Temm.*—Swamp-hen.

I have before mentioned that the swamp-hen is one of those native species that increase with the progress of settlement. This is very noticeable in many of our farming districts. Captain Mair informs me that at Whangarei (north of Auckland), during a period of fifteen years—from 1850 to 1865—he never saw one in that district. After that date they began to make their appearance, and now they are comparatively plentiful, being met with in flocks of twenty or thirty together. In the Lake district they are everywhere abundant. At the warm lake of Rotomahana several hundreds may be seen in a single flock. They build their nests on the silica terraces, not in groups or colonies, but singly and without much attempt at concealment. Captain Mair has found as many as fourteen eggs in one nest, and eleven in another. At Tokano (at the southern extremity of Lake Taupo) the natives snare thousands of them in June and

* *Putatieke*: A renowned hinau tree in the Urewera country. It is supposed to possess miraculous attributes. Sterile women visit it for the purpose of inducing conception. They clasp the tree in transport, and repeat certain incantations by way of invoking the *atua*.

July, at which time they are very fat. They are caught by a very simple artifice. The natives, having marked their principal haunts, drive rows of stakes into the swampy soil at distances of a few feet. These are connected by means of flax-strings, from which are suspended hair-like nooses (made of the fibrous leaf of *Cordyline*) arranged in close succession, with the edges overlapping, and placed just high enough from the ground to catch the bird's head as it moves along the surface in search of food. As the swamp-hen is semi-nocturnal in its habits, being most active after dusk, it has less opportunity of avoiding the treacherous loops. It frequents the Maori plantations in considerable numbers and proves very destructive to the young crops, and later in the season it plunders the potato fields and kumera beds. The snaring of these birds, therefore, on this large scale, answers a double purpose, inasmuch as they are excellent eating when roasted in their own fat. Their eggs also are much sought after in the nesting season, being esteemed as great a delicacy as "plover's eggs."

HIMANTOPUS NOVÆ-ZEALANDIÆ, *Gould*.—Black Stilt.

This species, as well as the pied stilt, is very plentiful in the Lake district. They appear to subsist chiefly on the dead gnats that float on the surface of the water in the sulphur springs. The plovers are continually to be seen wading about in the warm yellow water of these springs, feeding on the floating scum and on the small salamander worms which abound in these places.

ANARHYNCHUS FRONTALIS, *Quoy et Gaim*.—Wry-billed Plover.

This very peculiar bird with an asymmetrical bill is tolerably common in the Bay of Plenty. They associate freely with the flocks of godwit on their feeding-grounds and resting-places during the alternation of the tides.

ARDEA SYRMATOPHORA, *Gould*.—White Heron.

This stately bird appears so rarely in the North Island that the natives distinguish it as "the bird seen once in a life-time." In the summer of 1865 a pair visited the Mangrove Swamp at Whangarei, and remained there several weeks. The year before a pair was seen in Whangape Lake in the Lower Waikato; in 1867 another pair frequented, for some time, the marshy ground at the mouth of the Maketu River, and again in 1867 a pair visited the banks of the Waihi in the same district. The natives made every possible effort to obtain these birds for the sake of the white plumes. In both of the last-mentioned cases they succeeded in killing one of them, the survivor remaining in the locality for several months, leaving only on the approach of winter.

ARDEA SACRA, *Gmelin*.—Blue Heron.

A pair was seen by Captain Mair on the Taupo Lake in October, 1875. It is tolerably common along the shores of the Bay of Plenty.

CASARCA VARIEGATA, *Gray*.—Paradise Duck.

This fine duck is seldom met with north of Petane. A flock of five visited Rotomahana Lake in March, 1866, and a pair was seen in Lake Taupo in October, 1873. I have already recorded* the appearance of five some years ago in the Kaipara district, at the far north. These are the only instances that have come within my knowledge of the occurrence of this species beyond its ordinary range.

STERCORARIUS ANTARCTICUS, *Gray*.—Southern Skua.

In my "Birds of New Zealand," page 267, I mentioned the only local specimen then known—a female bird obtained by Dr. Hector in Woodhen Cove, on the south side of Breaksea Sound, and deposited in the Otago Museum. Other specimens have since been collected in the South Island, and I have now in my possession a living example taken some months ago at Waikanae, some forty miles from Wellington.

LARUS DOMINICANUS, *Licht*.—Black-backed Gull.

Simpkins, a publican at Whakatane, obtained a female of this species, when quite young, from White Island, a distance of some thirty-five miles. It became perfectly tame, answering to the name of "Hinemoa," and coming into the house at meal-times to be fed. When about two years old it suddenly disappeared, and after a lapse of six months it returned with two young ones, which have since become quite domesticated. By last advices both old bird and young were still inhabitants of the yard, and evinced no desire to leave it.

PROCELLARIA PARKINSONI, *Gray*.—Black Petrel.

This petrel is said to breed in large numbers on the Island of Karewa, in the Bay of Plenty. In March the Maoris visit the island and collect the young of this and other species. The most plentiful, however, is the oii or mutton-bird (*Puffinus tristis*).

PHALACROCORAX BREVIROSTRIS, *Gould*.—White-throated Shag.

In the Lake district there are "shaggeries" of considerable magnitude which are much valued by the natives, each colony of nests having its own proprietor, who exercises all the rights of ownership, visiting the ground at the breeding season for the purpose of collecting the young birds, which are potted in the usual manner and are considered a great dainty. Captain Mair accompanied one of the shag parties to the Tauranga River, at Lake Taupo, and saw 400 young birds collected in the course of a single day. Both the white-throated and the small black shag breed together in these localities, although apparently never pairing. Captain Mair still adheres

* "Birds of New Zealand," p. 242.

to the opinion that they are distinct species, and has promised to send me nestlings of both for comparison.

It will be remembered that at one of our meetings in 1875,* I exhibited an adult bird, supposed to be of this species, in which there were indications of a seasonal change of plumage from a rusty or brownish to a glossy black, without any appearance of white on the throat or fore-neck.

PHALACROCORAX VARIUS, *Gmel.*—Pied Shag.

Captain Mair informs me that at a place called Whakarewha, near Matata on the East Coast, there is a colony of the white-bellied shag where thousands of them breed together. The nests are crowded together on the branches of a clump of pohutukawa trees growing on the cliff; and the old birds may often be seen fighting fiercely for the possession of a dry stick or piece of sea-weed, required for building purposes, or endeavouring to dispossess each other of nests already made. In these fights the young birds are not unfrequently knocked out of the nests, and numbers of dead ones are found lying on the beach at the base of the cliff. The nests are rude structures formed of dry twigs and sticks, bound together by means of a peculiar kind of kelp for which the shags may be observed diving in the sea, sometimes in four fathoms of water. The harrier (*Circus gouldi*) hovers about this breeding-place and makes an occasional attempt to carry off a young bird from the nest by boldly attacking it; whereupon numbers of the old birds sally forth with loud guttural cries and chase the intruder to a considerable distance.

Captain Mair, who has often visited this "shaggery," says:—"It is very amusing to watch the old birds feeding the young ones. With a slow flapping of its ample wings the parent bird comes in from her fishing excursion, her capacious throat distended with food. There is much excitement in the nest on her approach. The young birds open wide their mandibles, and thrusting her beak down the throat of her offspring, the careful mother empties the contents of her pouch right into the little one's crop. All this time the delighted recipient is swaying its body to and fro, vibrating its flippers and uttering a perpetual scream of joy."

At the Rurima Rocks in the Bay of Plenty, six miles from the shore, where some three or four hundred shags congregate every year to refit their nests in the tall pohutukawa trees, the birds are almost exclusively of this species.

PHALACROCORAX NOVÆ-HOLLANDIÆ, *Steph.*—Black Shag.

Captain Mair states that this species is rarely seen in the Bay of Plenty. But he distinguishes from this what he terms the "Large Brown River

* "Trans. N.Z. Inst.," VII., page 225.

Shag," the mapo or matapo of the Maoris. He describes this bird as "brown all over with a yellow tinge on the throat," and says that it frequents lakes and the upper courses of rivers and is never met with on the sea coast. A colony of them, numbering about a dozen individuals (exclusively of this kind) breed every year in a kahikatea forest near the shores of Lake Rotorua.

APTERYX AUSTRALIS, *Shaw*.—South Island Kiwi.

Comparatively few specimens of this bird are now brought in by collectors in the South Island, whereas the supply of *Apteryx oweni* is undiminished.

APTERYX MANTELLI, *Bartl.*—North Island Kiwi.

The natives whom I found camping at the foot of the Kaimanawa range in March last assured me that the kiwi was still very plentiful there. About a fortnight before the date of my visit (or end of February) they captured a female with a well-grown young one in a hollow log. It may be inferred therefrom that this species commences nesting about the beginning of January. As the natives agree that there is never more than one young bird in the nest, it seems probable that the kiwi breeds twice during the season.

ART. XXI.—*On the Disappearance of the Korimako (Anthornis melanura) from the North Island.* By WALTER L. BULLER, C.M.G., Sc.D.

[*Read before the Wellington Philosophical Society, 22nd September, 1877.*]

IN my "History of the Birds of New Zealand," in treating of this bird I made the following statement, which was afterwards challenged by Captain Hutton, in a communication to "The Ibis:"—

"This species, formerly very plentiful in every part of the country, appears to be rapidly dying out. From some districts, where a few years ago it was the commonest bird, it has now entirely vanished. In the Waikato it is comparatively scarce; on the East Coast it is only rarely met with; and from the woods north of Auckland it has disappeared altogether. In my journeys through the Kaipara district eighteen years ago, I found this bird excessively abundant everywhere; and on the banks of the Wairoa the bush fairly swarmed with them. Dr. Hector, who passed over the same ground in 1866, assures me that he scarcely ever met with it; and a valued correspondent, writing from Whangarei (about eighty miles north of Auckland), says:—'In 1859 this bird was very abundant, in 1860 it was less numerous, in 1862 it was extremely rare, and from 1863 to 1866 I never saw but one individual. It now seems to be entirely extinct in this district.'"