ART. XXXIII.—*Notes on a Paper entitled "The Takahe in Western Otago," by Mr. James Park, F.G.S.*

By E. MELLAND.

[*Read before the Otago Institute, 12th August, 1889.*]

IN the current volume (xxi.) of the "Transactions and Proceedings of the New Zealand Institute" there is an article on the *Notornis mantelli*, entitled "The Takahe in Western Otago," which I think ought not to be passed over without some sort of protest; and in case no one better fitted for the task should consider it worthy of any notice I have resolved to say a few words about it.

The writer of the article is Mr. James Park, F.G.S., and his object is to show that the takahe "not only exists, but is probably as numerous now as when the colony was first settled by Europeans."

In his introductory remarks about the known specimens of this bird Mr. Park is not as accurate as could be wished. With regard to the one generally known as the Dresden specimen he says, "The third specimen was captured by a party of rabbiters, about the beginning of 1880, on the Mararoa Flat;" whereas it was caught by a solitary rabbiter towards the end of 1879 on a piece of ground locally known as "The Wilderness," some distance from the Mararoa Flat. The place is accurately described by Professor Parker in his article on the Dunedin specimen in vol. xviii. of the "Transactions." But Mr. Park has apparently never seen this article, nor heard of the existence of this skeleton, for he goes on to say, "Since the above date"—*i.e.*, 1880—"no fresh example of the *Notornis* has been secured."

He then begins the narrative of his own experiences with, "My first acquaintance with this bird dates back to 1881." This "acquaintance" consisted in Mr. Park and two companions, who were camped among the mountains in the Wanaka district, hearing, soon after dark, "at short intervals, a loud booming note." As they "were all pretty familiar with the calls of the different birds usually met with in the high lands of Otago," they arrived at the conclusion, "after some deliberation," that this was the *Notornis*—"a determination," he goes on to say, "subsequently borne out by facts which came under my own observation."

What these convincing facts were we shall see later on. We are then told how they tried to catch sight of the bird by the light of the camp-fire, but were unsuccessful. The next day Mr. Park "found that the clear space below the matted

branches of the scrub under which the bird had eluded us was about 20in. high, thus affording a means of approximately determining its height." I should have supposed that this merely proved that the bird was less than 20in. high, and did not, even approximately, determine how much less; but Mr. Park's ideas of evidence are peculiar. Having now no doubt whatever on the matter, he goes on to say, "The *Notornis* remained in the vicinity of the camp during our stay at this place, being evidently more curious than alarmed at our presence. He generally sallied forth at dusk and retired at daybreak."

With regard to the assumed nocturnal habits of the takahe, I may say that what little evidence there is on the subject is all against the assumption. At least two of the three specimens caught alive were found and run down in broad daylight.

Mr. Park's next experience occurred a few days later, when camped on the Matukituki with the same party. Shortly after dusk they "heard the note of a *Notornis*" (this assumption of certainty runs through the whole article), and this time they disturbed the bird, though they did not see it; but they saw the "shallow hole in the dry sand" where the bird had been dusting itself.

The following evening Mr. Park was more fortunate, and, looking cautiously over the bank, actually caught a passing view of the bird, though we are not informed at what distance. He admits that "in the uncertain starlight" he could "only make out its general outline," and that "it must be remembered that it was only in sight a few seconds;" but the "impression it left on" his "mind at the time was that its colour was very dark and its height about that of a full-grown turkey." As to this, I need only say that, as Mr. Park was quite certain he was about to see a takahe, and then saw something under the very untrustworthy conditions he describes, it would have been strange if the impression left on his mind had been anything else.

Mr. Park then relates how, seven years later (in January of last year), he was in Dusky Sound, and heard "the *Notornis*" on several occasions—so often, indeed, that, if the mysterious notes had really been due to takahes, these birds must be about as common on the West Coast as kiwis. He was, however, never again fortunate enough to see one. The next piece of evidence is that of Mr. Park's "field-hand," who also "heard a takahe in the bush," and recognised the booming note at once, as he had been "one of the party of rabbiters who caught the takahe near Lake Te Anau in 1880," and had there often heard the note. Mr. Park sublimely adds, "I considered this evidence conclusive that this was indeed the *Notornis*." This conclusive evidence is, however, a little

shaken by the fact that the 1880 (or 1879) takahe was caught, as I said before, by a single rabbiter, and not by a party (this man's name was "Bob Scott;" the name of Mr. Park's assistant is not given); and, secondly, by the very strong suspicion that the booming note the man had so often heard was simply that of the bittern, a bird far from uncommon in the Mararoa district.

Mr. Park then proceeds to sum up our knowledge of the takahe by adding his experiences to the list of captured specimens, as if the evidence was all of the same value. He then quotes Mr. Docherty, who recently informed the Hon. Mr. Mantell that he had seen a *Notornis* at Dusky Sound. "He said he came upon it in the bush close to the beach, and that it flew some distance on to the water, and then made back to the shore." By quoting this remarkable statement without a word of comment Mr. Park lays himself open to the suspicion of believing the *Notornis* to be a bird capable of sustained flight. Without going into the anatomical aspect of the question, I would simply point out that both the takahes whose capture is recorded in detail were run down by dogs after a long chase, and both could have escaped had they possessed the power of flight.

Mr. Park confidently concludes with the remark, "I think I have said enough to show that the *Notornis* still exists in the lonely sounds and mountain-recesses of Western Otago."

I would rather say that the article, by its whole tone—so alien from the cautious true scientific spirit—only shows how easy it is for some men to prove to their own satisfaction anything they may strongly wish to believe. The mere fact that the indefatigable Mr. Reischek has been industriously searching for the takahe in the very district mentioned for many months without success might have given Mr. Park some doubt as to the truth of his theory. So might Mr. Mantell's account of the first takahe, caught at Resolution Island. This bird was kept alive on board ship for three or four days, and is said to have "uttered loud screams," but no mention is made of anything of the nature of a booming note. This is, of course, merely negative evidence, though not, I think, without some value.

It is usually very difficult to prove a negative, but in this case the matter is simplified by the ease with which we can prove a contradictory affirmative.

On the occasion when Mr. Park almost saw the author of the booming note in its dusting-hole, he regretted that he had not with him "a sharp dog," which could "easily have caught it."

It certainly is a matter for regret, because the dog would have surprised its master by bringing him a kakapo, and

then I suppose the article under notice would never have been written. Mr. Park's description of this mysterious booming note, very much like that of the bittern, but louder, exactly describes a note of the male kakapo (*Stringops habroptilus*) in the breeding-season; and, if Mr. Park had only had a dog with him in camp, or if he had made some inquiries on the subject in the Te Anau district, for instance, he could easily have satisfied himself of this fact.

The peculiarity of the male kakapo having a special and remarkable note for the breeding-season is possibly due to its supposed polygamous habits. Mr. Richard Henry, who has lived in the Manapouri and Te Anau district for about ten years, and is a very careful and trustworthy observer of facts connected with natural history, and also an energetic collector, says, "I have never found two (adults) in one hole at any season, though there is always plenty of room, so I conclude that they never pair; but are polygamous, and that the booming is music to the female, the finest boomer being the greatest charmer." On this point I would suggest that this warlike note is more probably intended for other males, and is a defiance or a challenge to mortal combat. This would in some measure account for the infrequency of the note excepting where kakapos are very plentiful. With regard to the question of polygamous habits, I find that Mr. Reischek, in some notes on the kakapo, says,* "From my observations, I am of opinion that the male bird takes no part in the hatching or rearing of the chicks, as in all cases the female was the sole attendant from first to last. I did not see a male near a breeding-burrow, nor did I in any single instance find two grown-up birds in one burrow, though I have seen them in pairs on their nocturnal rambles. Whenever two males meet they fight, the death of the weaker sometimes resulting."

These observations certainly appear to support the theory of polygamy; but this is at present a secondary matter. On the main question as to what bird is responsible for this powerful and alarming sound—which I have heard across the still waters of Te Anau at a distance of five or six miles—there can be no doubt. Some years ago Mr. R. Henry may be said to have settled the matter by systematic hunting for the then unknown bird among the mountains on the west shore of Te Anau. The mystery was very easily solved. When within a few yards of the "boomer" he would let his dog go, and the invariable result was an adult male kakapo. Since then he has many a time verified his conclusions, and any one who is interested in the question, and will take the necessary trouble, can easily do the same.

* "Trans.," vol. xvii., p. 195.

In case it should be thought strange that such an unusual note should be due to such a comparatively common bird as the kakapo, I should mention that, in addition to the fact that this note is only used during the breeding-season—from November to January, with an occasional "boom" up to as late as March (Mr. Park's experiences appear to have all been in January)—another peculiarity has been observed which shows its strangely intermittent occurrence. I cannot say whether the fact holds good on the West Coast, but on the Te Anau side of the mountains it has been carefully noticed for the last nine years that the booming note occurs only every alternate year. In these years the "drumming" (as it is called) can be heard in all directions almost every night of the breeding-season, while in the intervening summers there is hardly a solitary "boom." From this observation a theory has been evolved that the kakapo only breeds every alternate year. If true, this would no doubt be a remarkable and noteworthy fact; but there is not yet sufficient evidence either to prove or disprove it. It seems a pity that no systematic steps have been taken to definitely settle a question so easily decided, the more especially as, owing to the incredible folly of the Government in turning out ferrets on the west shore of Lake Manapouri, the day when this and all similar questions with regard to the native birds in that district will be impossible of settlement, is rapidly approaching. At present, however, the ferrets have not passed the South Fiord of Te Anau, and between there and the North Fiord I would undertake to catch at least half-a-dozen drumming kakapos any night next December. This is the sunny side of the mountains, and still has, I believe, far more kakapos to the square mile than any other part of the West Coast.

Before leaving the subject of this mysterious booming note I must quote from Sir Walter Buller's article on the kakapo, in the new edition of his "Birds of New Zealand," a curious remark which seems to show that in the olden days the Maoris had traced this sound to its true source. He says (vol. ii., p. 181), "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 in the olden time 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." As there is not the slightest connection between the ordinary strident scream of the kakapo and the "rumbling of distant thunder," this saying seems to distinctly point to the "drumming" note, which at a considerable distance is not at all unlike rolling thunder. But the origin of the proverb is by this time probably unknown to the Maoris

themselves, since the kakapo is practically extinct in the North Island, while the Maoris are almost equally scarce in the kakapo districts of the South.

To return to Mr. Park's article, I must add that if the writer had been at all well acquainted with the habits of the kakapo he would at once have suspected who was his nightly visitant. Besides the fact that there are so few birds of any size in our New Zealand bush that confusion on the subject is all the more inexcusable, Mr. Park's description of the mysterious bird's behaviour at the camp-fire is the common experience of every one accustomed to camping in bush where the kakapo is plentiful. I have often, when camped out on the West Coast mountains, been obliged to tie the dogs up all night to save these birds, while visiting our fires, from being uselessly killed. Again, the incident of the unknown bird having been dusting itself in a "shallow hole in the sand" should at once have suggested the real truth of the matter to any West Coast bushman. This is one of the common habits of the kakapo, and these dusting-holes are often the first signs of the presence of these birds in the bush. Then, the nature of the country, and the time of day—or night—in which Mr. Park's adventures occurred, are exactly suited to the habits of the kakapo.

But perhaps I need say no more. Some may object that I have already paid more attention to this article than it deserves. But, however harmless at present, in years to come, when most of our native birds are extinct, and when it is therefore too late to disprove Mr. Park's conclusions, these confident assertions might seriously mislead future students of such subjects. To me it seems a grave misfortune that such a careless, erroneous, and illogical paper should ever have attained to such a position of importance and permanence as is assured by its being admitted into what is generally supposed to be a scientific publication.

Art. XXXIV.—*On the Habits of the New Zealand Bush-rat* (Mus maorium).

By Joshua Rutland.
Communicated by Professor Hutton.

[*Read before the Philosophical Institute of Canterbury, 2nd May, 1889.*]

The countless swarms of rats that periodically make their appearance in the bush country of the South Island, though casually noticed by the settlers ever since the founding of the colony, have not until recently attracted the attention of