

History," 3rd series, c. 16, p. 66, in the feathers of *D. robustus*. There are no barbules on the barbs near the apex of the feather, and the shaft is not produced beyond the barbs. In colour these feathers are reddish-brown, with a central longitudinal dash of dark brown towards the apex of the shaft. The down is brownish white.

These two caves, therefore, have furnished two new kind of Moa feathers, making three distinct kinds that are now known. The green egg-shell is also quite a new type, approaching that of the Cassowary.

With regard to the Rat; the fur is exactly similar in colour to that of a specimen in the Otago Museum, locality unknown, which is certainly only a variety of *Mus decumanus*, but the skull obtained by Mr. White is much smaller than that of any rat that I have seen.

ART. VI.—*Extracts from a Letter from F. E. MANING, Esq., relative to the Extinction of the Moa.* [Communicated by T. KIRK, F.L.S.]

[Read before the Wellington Philosophical Society, 4th October, 1875.]

1. The Moas still existed in great numbers when the first Maori colonists arrived here.

2. They were called Moa because the Maoris were acquainted, either by experience or tradition, with other large birds, which they called by the same name.

3. There was little or no excitement in hunting the Moa, except such as a hungry man feels when hunting for a dinner.

4. They were most stupid and sluggish birds; and they were destroyed wholesale, by setting the grass and scrub on fire, and would quietly allow themselves to be roasted alive without moving. The natives killed in this way vast numbers more than they could use, or even could find, when the fire spread to great distances.

5. One unusually dry summer, a Maori hunter set fire to the scrub, and it caused such destruction amongst the Moas, that from that time forward they were so scarce as not to be worth the trouble of hunting, and soon became extinct.

6. The natives have a saying, "as inert (ngoikae) as a Moa."

7. Periodically (I suppose once a year) the Moas threw off their sluggishness, and fought with great fierceness, when the Maoris took advantage of their disabled condition.

8. When the Maoris first came into the northern part of the North Island, where the Moa was comparatively scarce, they soon found that,

amongst other things, the Moa was very fond of fern roots, and to procure it, a couple of Moas would soon scratch up and perfectly harrow one or two acres of ground. The Maoris would then kill the Moas, and plant their kumeras in the finely harrowed ground. From this, a small patch of cultivated ground has come to be called a "Moa."

9. Flint and obsidian knives were *always* used by the Maoris at the same time that they had the well-polished tools and weapons of stone. The polished tools were used for canoe building, making paddles, spears, clubs, agricultural instruments, etc., and were exceedingly valuable. The obsidian splinters were not worth the trouble of making into a regular shape; the edge was as keen as a razor, but so brittle, that it could not be used for cutting wood to any advantage. These knives were used for cutting flax, flesh, hair, and for surgical operations. The edge soon came off, when another chip would be split off the large lump of obsidian, which every family that could afford it would have lying by the house, or concealed somewhere near at hand. These blocks were usually brought from the Island of Tuhua by the Ngapuhi, when returning from southern expeditions, and were articles which fetched a considerable price in the way of barter. When I first came to the colony, in many inland villages the obsidian knife was still much used; it was merely a sharp chip, but when split off artistically, extremely sharp.

ART. VII.—*Notes on the Maori Cooking Places at the Mouth of the Shag River.* By Captain F. W. HUTTON, F.G.S.

[Read before the Otago Institute, 24th August, 1875.]

LAST summer I was very kindly invited by F. D. Rich, Esq., to explore the old Maori cooking-places on his estate of Bushy Park, at the mouth of the Shag River, and as the Museum Committee were fortunately able to furnish the necessary funds, I gladly accepted the invitation. Not having much time at my disposal, I secured the services of Mr. B. S. Booth, already favourably known to the members of this Institute, by his paper on the Moa swamp at Hamilton,* to conduct the explorations, and on the 23rd of January Mr. Rich and myself inspected the ground, and formed our plan of operations.

The locality has already been well described by Dr. von Haast† as a low ridge of sand-hills, running north and south for about 400 yards

* "Trans. N.Z. Inst." Vol. VII., p. 123.

† "Trans. N.Z. Inst.," Vol. VII., p. 91.