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A FEW NOTES ON THE GEOLOGY AND
PHYSIOGRAPHY OF MORETON ISLAND.

By Dr. E. O. Marks, B.A., B.E.

Our Easter excursion to Moreton Island would make a geologist anxious for the examination of solid rocks, sympathise with the walrus and the carpenter at seeing such quantities of sand. Solid rocks occur at Cape Moreton, but Cowan Cowan was too far away to allow of a visit to this, and during our trip we saw no solid rock, only sand. In spite of this the excursion was of considerable geological interest, for we were examining what must be among the highest sand-dunes in the world. Mt. Tempest, the highest point of the island, is, according to the survey map, 910 feet high, and is all sand, or at any rate there is no indication of any solid rock on the surface so far as we could see.

The topography of the island is very interesting, the hills being variable in outline and sometimes very steep: the hollows both V-shaped valleys and wide basins.

Seen from the summits the V valleys give one the impression of being the result of denudation, but a closer examination shows this not to be the case, for there is no evidence in the valley bottoms of anything in the nature of a stream, while many of the valleys are blind, having no outlet. There was no sign of water having ever collected, and the whole island, so far as we saw it, appears to act like a gigantic sponge absorbing all the rain falling on it. This apparently oozes out to the many swamps near sea level at the margin of the island. At low tide the water oozing from the beach is in many places fresh or only slightly brackish. That the form of the hills is frequently unlike the usual rounded dune is probably due to the vegetation anchoring irregularly what otherwise would have been drifting sand.

Several loose fragments of a coarse silicified sandstone were found, mostly having one side somewhat rounded. It was suggested that these had probably been brought there by the aborigines for grinding fern roots. No possible local origin for them was observed and they were formed of a much coarser sand than the sand composing the island.

A visit was paid to the sandy desert, an area of bare sand, about half a mile square, behind Tangalooma lighthouse. This is noted for the occurrence of fulgurites, some of which we were fortunate enough in obtaining.
Where the fulgurites are found the sand is somewhat yellowish, stained by feruginous or other salts, and this suggests itself as being a possible cause for the lightning devoting particular attention to the one spot, on account of greater conductivity or dampness. There are some blackened remnants of vegetation showing that this area had not always been the bare sand it is at present.

NOTES ON LAND VERTEBRATES.

By Heber Longman.

When seen across the sun-lit waters of the Bay, Moreton Island presents an interesting picture of white sand alternating with green foliage. It was our pleasant privilege to spend the few days of Easter-time among the dunes, swamps, and shores of this large island, so frequently seen but seldom visited. According to official figures, Moreton Island is twenty miles in length and five miles broad at the northern end, while the area is given as 45,760 acres. The height of Mount Tempest, which slightly overtops adjoining ridges, is given as 910 feet, and those naturalists who climbed its steep sides on a warm day are not inclined to lessen the figure.

Cape Moreton, Moreton Island, and Moreton Bay form a triple homonymy associated with the explorations of Cook and Flinders. In May, 1770, Captain Cook passed and named Cape Moreton, thinking it a prominence of the mainland, and when Flinders, twenty-nine years later, found it to be a part of an island, he gave the name to the whole area. To the aborigines the island was known as "Moorgumpin," and according to George Watkins, who published an interesting account in the Proceedings of the Royal Society of Queensland for 1891, the "Boorgammay" tribe, as the Moreton Islanders were called, spoke a very distinct dialect (Gowar). He also quotes Major Lockyer's record in a diary of 1828 of a black dingo in Moreton Bay. At present there are no Aborigines on Moreton Island, but we found around the swamps several fragments of the large pounding-stones, which were used to crush the "bungwal," the roots of Blechnum serrulatum, a common article of food.

Several traces were seen of the wild pigs, descended from domesticated animals introduced in earlier years. A complete skull was found, and Master Edwin Palmer presented some fine tusks to the Queensland Museum.