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ADVERTISEMENT.

This work is the third of a series of papers intended to illustrate the collections of Natural History and Ethnology belonging to the United States and constituting the National Museum, of which the Smithsonian Institution was placed in charge by the act of Congress of August 10, 1846.

It has been prepared at the request of the Institution, and printed by authority of the honorable Secretary of the Interior.

JOSEPH HENRY,

Secretary Smithsonian Institution.

SMITHSONIAN INSTITUTION,

Washington, February, 1876.

CONTRIBUTIONS

TO THE

NATURAL HISTORY

OF

KERGUELEN ISLAND,

MADE IN CONNECTION WITH THE UNITED STATES TRANSIT-OF-VENUS
EXPEDITION, 1874-75.

BY

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II.

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APPENDIX.

SURGEON E. KERSHNER'S COLLECTION.

MINERALS.

These include forty-two specimens, representing portions of Otago and other parts of New Zealand. A considerable number was obtained from the museum at Otago, being specimens gathered during the geological survey of the province. Of the remainder, most were collected by Dr. Kershner himself. Besides those already mentioned, this collection includes some fine specimens of copper-ore from the mines in Southern Africa. All of the minerals have been identified by Dr. F. M. Endlich, of the Smithsonian Institution, as per list following :

Original No.

- Geol. survey of Otago. {
- 19. Pumice (typical specimen).
 - 20. Doleritic rock with zeolites.
 - 21. Chrome-ore (Otago Museum).
 - 22. Hornblende.
 - 23. White quartz.
 - 24. White quartz with decomposed feldspar.
 - 25. Iron and copper ore.
 - 26. Same as 20.
 - 27. Pyrite and mica in chloritic schist (Otago Museum).
 - 28. Chalcopyrite (Otago Museum).
- 29-40. Bornite (copper-ore) associated with quartz.
- 41. Quartzitic rock impregnated with pyrite.
 - 42. Copper-ore.
 - 43. Lignitic coal (Germ. sp. name, Russkohle).
 - 44. Feldspathic rock decomposed into caolinite.
 - 45. Quartzitic rock containing caolinite and impregnated with pyrite
 - 46. Galena and quartz.
 - 47. Druse of natrolite in basalt.
 - 48. Sulphur.
 - 49. Chalcopyrite (copper pyrite).

Original No.

50. Sulphur.
51. Very impure graphite with quartz.
52. Pyrite and quartz.
53. Copper-ore, sulphide and carbonates.
54. Natrolite in basalt.
55. Same as 53.
56. Compact limonite (hydrated sesquioxide of iron).
57. Coal.
58. Chrome-ore.
59. Covellite (copper indigo), copper mineral.
60. Same as 44.
61. Sulphur.
62. Aragonite (carb. of lime), radio-columnar.

Fossils are not determined as yet; nor greenish mineral in basalt. Former appear to be carboniferous.

MISCELLANEOUS.

Nat. Mus. No.

- | | | |
|-------|---|------------------------------------------------------------|
| 14783 | } | Two skulls, with leg-bones of Maoris, from Chatham Island. |
| 14784 | | |
- 14782 Skull of Maori-ori, or Chatham Island aborigine, concerning which Dr. Kershner writes that it was "picked up from the surface of the ground, having been exposed to the weather. It is said that this race never buried their dead, but carried them out and deposited them in heaps, where they were left to decay, so that the bones are easily found in many different parts of the island. They were cannibals; the remnants of the race now found in the island having been known to practice cannibalism as late as about ten years ago. They now number only about twenty-five souls, are limited to a reservation, and sustained by the colonial government. The name Maori-ori is said to mean 'before the Maoris,' and indicates that these people, the aborigines of Chatham Island, had been subdued and, in great measure, displaced by the Maoris." It seems not improbable that this race represents also the aboriginal inhabitants of New Zealand, which had quite disappeared before the discovery of the islands by Europeans. Chatham Island lies east of New Zealand, at the distance of about six hundred miles, in latitude 48° south.

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- 20254 } Are stone implements of the Maori-ori; a large cleaver-shaped
 20255 } stone hatchet and two chisels, also of stone.

Skin and skeleton of *Dasyurus maculatus*. Concerning this animal, Dr. Kershner writes that it was captured in the mountainous part of Tasmania, near Hobarton; and that it is so destructive to young lambs that it is being rapidly exterminated by the colonists, who call it "tiger-cat." The skin is a very fine one, and has been mounted and placed in the museum collection.

- 1478 Skin and skeleton of *Ornithorhynchus paradoxus*, the "beast with the bill." The skeleton is perfect, but the skin has been somewhat curtailed by trimming, and is valuable only as exhibiting the softness and fineness of the fur. Obtained near Hobarton, Tasmania.

Strigops habroptilis, the "owl-eyed parrot" of New Zealand, obtained from Otago Museum by the courtesy of its curator, Captain Hutton. The bird is nocturnal in its habits, burrows in the ground or in holes in the rocks, and feeds upon worms and grubs. It is becoming very scarce since the introduction of dogs and cats into the island.

Buphagus skua antarcticus, shot at Hobarton. Same species as that observed at Kerguelen, the hawk-like habits of which were described in the National Museum Bulletin No. 2. This individual was shot in the act of devouring a tame duck which it had just captured in the yard of a resident of Hobarton. It is said even to attack young lambs, and to be very destructive to domestic fowls.

Skin of king-penguin (*Aptenodytes longirostris*) obtained at Kerguelen Island, but really captured on the Falkland Islands.

A large collection of bones of the moa (*Dinornis*), the great extinct New Zealand bird, from Christ Church (Middle Island), New Zealand. These have not yet been put together or carefully examined.

- 15485 Head and fins of *Trigla*, *sp.*, from Port Arthur, Tasmania. A fish nearly allied to and much resembling the "sea-robin" of the New England coast.

- 15484 Mutilated skin of *Aracana*, *sp.*, from Hobarton, a fish closely resembling the trunk-fish (*Ostracion*).

Nat. Mus. No.

Hippocampus, *sp.* Port Chalmers, New Zealand. Of very unusual size.

Anguilla aucklandii, Richardson, from Bluff Harbor, New Zealand. An enormous eel.

In the subkingdom MOLLUSCA, Dr. Kershner's collection is peculiarly rich, including large series of shells from New Zealand, Tasmania, the Auckland and Chatham Islands, besides a very handsome *Cephalopod* (*Ommastrephes*), preserved in alcohol. The shells are now undergoing examination by Mr. W. H. Dall.

The botanical collections, also very large, include specimens of the "Ake-aka," an aromatic wood from Chatham Island, and of the seeds of the "Kapu-kapuka" or Chatham lily (*Myosotidium nobile*, Hooker), a flower greatly prized for its beauty. The lily grows only on the verge of the sea-beach, in shady places, in a soil composed of rich mold mixed with sand. If cultivated in gardens it should be watered with salt-water. Besides these are series of ferns from all the localities visited, and a considerable collection of flowering-plants from the Auckland Islands. The plants have been sent to Cambridge for identification; the woods are at the Agricultural Department, Washington.

The collection of plants from the Auckland Islands was taken from the neighborhood of the German transit-station at that place, the same locality occupied by Sir James Clarke Ross when at the Aucklands in 1841, in the Erebus and Terror.

The *Crustacea*, which have been identified by Prof. S. I. Smith, are found to be as follows:

2209 *Heterograpsus sexdentatus*, Edw.

Petrolisthes elongatus, Stimp.

2210 *Livoneca*, near *emarginata*, Bleeker. An isopod parasitic upon fish.

The following note upon some interesting hydroids found in Dr. Kershner's collection is given as received from the writer, Mr. S. F. Clark, of Yale College:

HYDROIDEA.

"Among the invertebrates sent to New Haven, for identification, by Dr. Kidder, is a fine specimen of a pedunculated ascidian, belonging to the genus *Boltenia*. This same genus is represented on the New Eng-

land coast by the species *Bolteni*, the stems of which are the favorite abiding-places of many hydroids; and it is interesting to note that the three genera, *Sertularia*, *Sertularella*, and *Laföä*, which are almost invariably represented on our New England species, are also represented on the stem of this southern specimen.

“The species of *Sertularia* is very close to, if not identical with, *S. operculata* of Linnæus; but there being no gonothecæ present on either of the three species, I shall not attempt to make specific determinations.

“The genus *Sertularella* is represented by a species resembling in mode of growth the *S. tricuspadata* of Alder. Hydrothecæ alternate, stout, and with a tricuspate rim. Possibly this is identical with the *Sertularia johnstoni* of Murray. (Dieffenbach’s New Zealand, London, 1843.)

“The third species is probably a member of the genus *Laföä*; it is a creeping form, and many of the hydrothecæ have only their upper portions free, the lower portions reclining upon the stolon. The ascidian bearing these hydroids was collected at Port Chalmers, New Zealand, in January, 1875, by Dr. E. Kershner, U. S. N.”

II.

A considerable collection was also made by Mr. Israel Russell, one of the photographers to the New Zealand party, mostly from the province of Otago, New Zealand. Mr. Russell’s collection includes a number of Maori implements, with some supposed to belong to a still older race (perhaps the Maori-ori). His bird-skins represent specimens of *Larus dominicanus* ♀, *Daption capensis*, *Casarca variegata*, Gm., *Podiceps cristatus (australis)*, Gould ♂, *Porphyriops crassirostris*, Gray, *Creadion carunculatus*, and two pigeons and a parrot, as yet undetermined. Besides these, there are a number of New Zealand birds preserved in alcohol, and a large collection of the bones of the moa.

Other departments of natural history are well represented in Mr. Russell’s collection. There are a large number of fossil shells from Lake Wakatipu, New Zealand, and of recent forms from the same pit in which the Maori implements were found. Also, a considerable collection of plants, and of insects, *Crustacea*, and small vertebrates which have not yet been studied.

III.

Mr. Edwin Smith, United States Coast Survey, chief of the Chatham Island party, sends three skulls, two of Maoris and one of a Maori-ori, for the authenticity of which he vouches.