

INSECTS OF CAMPBELL ISLAND. PEAT INSECTS¹

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Abstract: Material of about 20 species of arthropods was extracted from peat samples from three levels of a coastal bank at Tucker Cove, Campbell I.

A collection of peat samples was made on Campbell Island in order to determine if there might have been some conspicuous extinction of species, or other changes, during recent millenia. The samples were taken at three levels (26 cm, 76 cm, 126 cm) in a vertical bank on the west side of Tucker Cove, near the inner end of the inlet, very near the location of the old dock. At this point the peat was nearly two meters thick. The samples measured about 20×20×12 cm in size. The lower sample was taken at about a meter above high tide level. One sample, from a fourth level, 176 cm depth, was originally taken by Gressitt. One of the original four samples was lost in transit and this was replaced in early 1962 by K. P. Rennell. Then all of these samples were lost, and were replaced by Rennell and K. A. J. Wise.

Probably the samples reported here are much less than 10,000 years old. A series of samples taken on the Snares by C. A. Fleming from a similar, but tussock-covered bank, was reported by Harris (1953)² as being less than 2,000 years old. Dr. Fleming informs us (letter of 2 March 1964) that a radiocarbon date available for Auckland I. (NZ-313) 60 cm below surface is about 6,290 years old. Likewise for Macquarie I., basal peat below gravel proved to be about 7,600 years old; basal peat, depth 3 m, about 1,510; and peat 3.3 m depth, about 2,565 years old. Similarly in Fiordland, southern South Island, N.Z., samples ranged from 800 to 5,610 years old.

In addition to the main samples, a small sample was examined in the field by Gressitt. This was from a large piece beached on the east side of Tucker Cove measuring 2×1.5×0.6 meters. The very small sample analyzed produced the following:

- Orthoptera: Rhaphidophoridae. *Notoplectron* (many fragments)
- Diptera: puparium (1)
- Coleoptera: Carabidae. *Pseudoopterus* sp. (2)
- Byrrhidae. *Liochoria sorenseni* Brks. (1)
- Curculionidae. *Gromilus veneris setarius* (Broun) (1)

The records from the main lots of peat are enumerated in Tables 1-3. The material seems to mainly represent recognizable existing species.

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2. See Bibliography, for literature cited.

Table 1. Arthropods from peat sample #1, 26 cm below surface.

Acarina: Cryptostigmata (30)
 Hemiptera: Homoptera: Pseudococcidae (1)
 Diptera: puparium (3)
 Sciaridae (1)
 Coleoptera: Carabidae. *Pseudopterus* spp. (22)
 Kenodactylus capito Brn. (2)
 Leptodiridae. *Paracatops campbellicus* (Brks.) (116)
 Staphylinidae. *Nesomalium campbellensis* Steel (7)
 Colle campbellensis Steel (1)
 Byrrhidae. *Liochoria sorenseni* Brks. (10)
 Curculionidae. *Notacalles* spp. (3)
 N. sp. nr. multisetosus and *suillus* (?different from both) (1)
 Gromilus veneris setarius (Brn.) (3)
 G. sp. (3)
 G. exiguus (Brks.) (14)
 Oclandius cinereus Bl. (2)
 Catadryobiolus antipoda Brks. (2)
 Hymenoptera: Pupal case (6)

Table 2. Arthropods from peat sample #2, 76 cm below surface.

Coleoptera: Carabidae. *Pseudopterus* spp. (1)
 Leptodiridae. *Paracatops campbellicus* (Brks.) (1)
 Byrrhidae. *Liochoria sorenseni* Brks. (2)

Table 3. Arthropods from peat sample #3, 126 cm below surface.

Acarina: Cryptostigmata (2)
 Coleoptera: Carabidae. *Pseudopterus* spp. (10)
 Byrrhidae. *Liochorea sorenseni* Brks. (12)
 Curculionidae. *Gromilus* sp. (1)
 Oclandius prob. *cinereus* Bl. (1)
 weevil (1)
 Hymenoptera: Pupal case (1)