Jules Richard* included *D. carinata* King in his "Revision des Cladocères," and remarked that Sars had "observed this species, of which he is about to publish a description." Sars, in his paper of 1894, referred to in the beginning of this paper, noted a certain similarity in appearance between *D. thomsoni* and *D. carinata*. He says, "The species (*D. thomsoni*) is very nearly allied to *D. carinata* King, of which I have had specimens for examination, differing somewhat, however, in the form of the rostrum and in the structure of the tail. The carina of the head is, moreover, far from being so strongly developed as in that species, and the spine of the carapace is also less elongated, sometimes even very short."

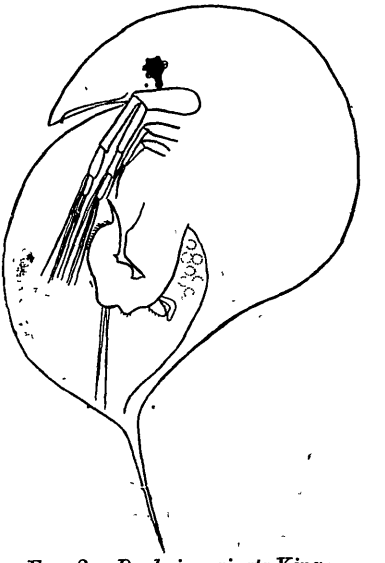

FIG. 2.—*Daphnia carinata* King; viewed from left side.

The specimens of *D. carinata* found at Middleton and at Oamaru, in New Zealand, are characterized by the expansion of the anterior half of the carapace into a large circular carina which surmounts the head and anterior portion of the body, ending under the head in a distinct rostrum. On the posterior surface of the rostrum, a short distance above its point, is a small angular depression to the level of which the very small antennules project. The posterior spine of the carapace is slightly less than one-half of the length of the carapace proper. The dorsal portion of the abdomen is provided with four median dorsal processes, the anterior two of which are somewhat longer and narrower than the posterior two, which are more rounded and setose.

This species has, up to the present, been recorded only from Middleton, near Christchurch, and from Oamaru.

ART. XXI.—Diptera *of the Kermadec Islands.*

By DAVID MILLER.

[*Read before the Otago Institute, 7th October, 1913.*]

SOME time ago a collection of *Diptera* from the Kermadec Islands was sent to me for identification by Dr. Hilgendorf, of Lincoln College. These flies were collected on Sunday Island by Mr. W. L. Wallace, a member of Mr. R. B. Oliver's expedition to the Kermadecs during 1908. A number are common to the Kermadec Islands, Australia, and New Zealand, but there are no types of the last country among the collection.

Unfortunately, the greater part of this collection is seriously damaged, so that the following brief list is all that can be drawn up.

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* Richard, J.: "Revision des Cladocères." Ann. des Sci. Nat., Zool., 8 sér., tom. 2, 1896, pp. 223–28, pl. 23, figs. 10, 11, 16.

Fam. SYRPHIDAE.

Syrphus novae-zealandiae.

Three males and two females. One specimen captured on toetoe, Denham Bay, 20th August; four specimens captured while hovering over *Solanum* and Tongan bean on No. 3 Terrace, north coast, 24th August.

Common in still, bright weather. Abundant throughout New Zealand and found in Polynesia.

Syrphus viridiceps.

Three males and one female. Captured hovering over *Solanum*, in sunshine, on No. 3 Terrace, 16th September. A male and female taken in coitu.

This species is found both in Australia and New Zealand, and is identical with Captain Hutton's *S. obesus*.

Fam. ANTHOMYIDAE.

Ophyra nigra.

Two males and four females. Common. Two specimens caught in sunshine on ngaio-tree, Denham Bay, 20th August; four from the carcase of a goat, north coast, 9th November.

Common about dead sheep in Western Australia, but not, so far, found in New Zealand.

Fam. DEXIIDAE.

Dexia rubricarinata.

Five males and four females. Captured from the carcase of a goat, north coast, 9th November.

An extremely abundant and very troublesome fly. This species has a wide distribution from China, through the East Indies, Australia, Tasmania, and the Kermadecs, to New Zealand. I procured a large number at Astrolabe during the summer of 1911.

Fam. MUSCIDAE.

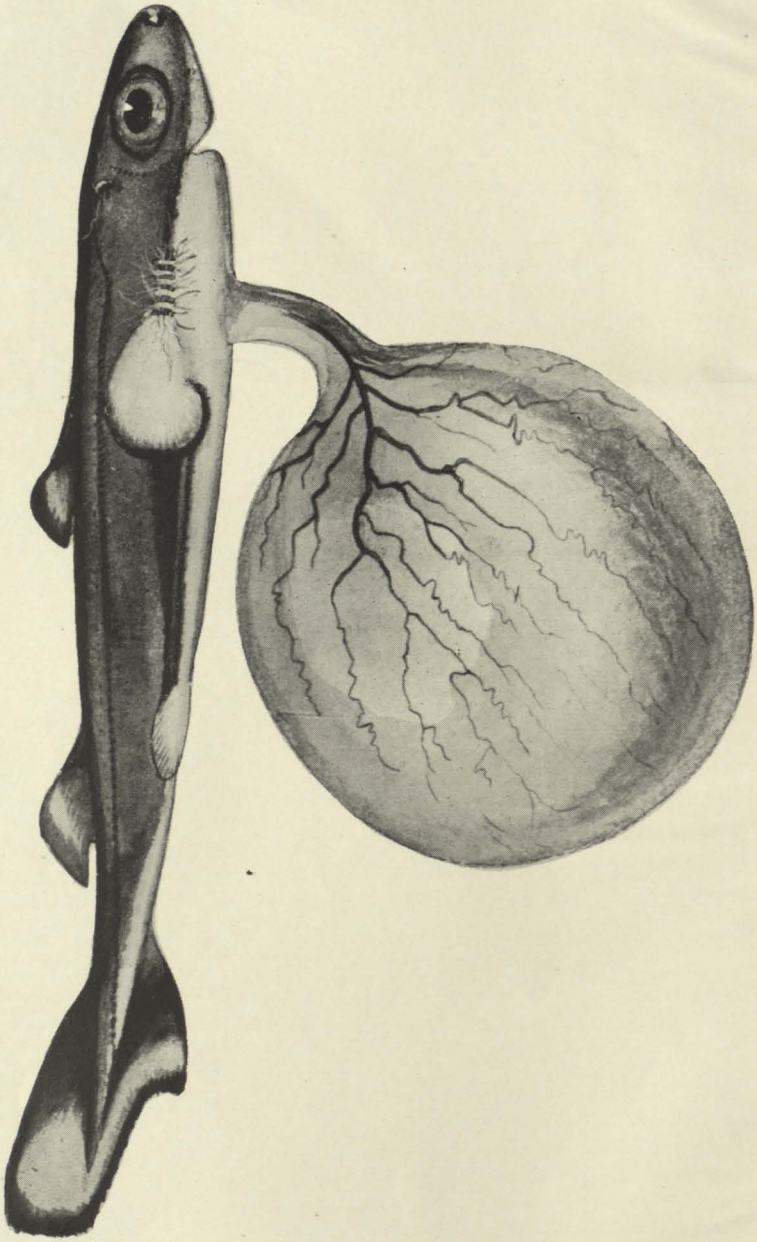
Calliphora laemica.

Five males and six females. Abundant in sunny places all over the island. The specimens were captured while flying in a warm cave, known as the Oven Cave, on the shores of the Green Lake, in the crater, 30th October.

Common in Australia, Polynesia, and New Zealand.

There are also a number of the *Muscidae acalyptratae* which I am unable to identify at present.

The *Nemocera* are represented by two species of *Culicidae*, a Tipulid, and some species of the *Mycetophilidae*, all of which are so much damaged that identification, beyond the families, is impossible.



CENTROPHORUS PLUNKETI *Waite.*

Edgar R. Waite del.]

[*Face p. 172.*