

tows in the area of the North Taranaki Bight by courtesy of the Marine Department, Wellington, and from Otago Harbour, in the vicinity of the Portobello Marine Biological Station collected during a four-day visit by the author in mid-August, 1964.

The first parasite observed in the present study was a relatively large trematode from a specimen of *Pleurobrachia pileus* taken in Wellington Harbour in early May, 1964. From this time on all *Pleurobrachia* taken were checked for the presence of parasites, and it became clear that trematodes and also nematodes occurred in some numbers not only during the peak months of occurrence of *Pleurobrachia* but throughout the year. A few specimens of *P. pileus* from the North Taranaki Bight and also Otago Harbour carried endoparasites. Both trematodes and nematodes were present in specimens from the North Taranaki Bight (latitude 38° 36.2' S to 39° 1.5' S, longitude 174° 6.3' E to 174° 1.6' E), but trematodes only from Otago Harbour. However, collection in both Wellington Harbour and the North Taranaki Bight was more extensive in time and range than that from Otago Harbour, and it is possible that nematodes as well as trematodes are also present in *P. pileus* from Otago Harbour. Furthermore, as *P. pileus* carries similar parasites from such widely separated areas as the east coast South Island (Otago Harbour) and the west coast North Island (North Taranaki Bight) it is possible that *P. pileus* could harbour these parasites wherever it occurs in New Zealand waters.

The first trematode seen was relatively large, 1.2mm in length and hence readily recognizable. Very much smaller forms have been taken that were not readily recognizable especially in preserved material. Some were sufficiently minute to be located by their movement rather than by their body form.

Records of parasites in ctenophores in general and in *P. pileus* in particular are few, and frequently note only occurrence. It is difficult to ascertain whether this paucity of record is a reflection of the small number of parasites in ctenophores or whether the parasites are frequently of minute size, they have been overlooked or disregarded by those working in this field of ctenophore taxonomy. On the evidence of the numbers found in the present material (trematodes, 37; nematodes 13) it appears that *P. pileus* in New Zealand waters harbours fairly frequently some species of these two parasitic groups. The majority of work in the ctenophora has been of a systematic and taxonomic nature as for example, the monographs of Chun (1880), Moser (1903), and Mortensen (1912), but these workers also record the distribution of ctenophores. *P. pileus* is essentially cosmopolitan. Only Mortensen (1912: 72) reported finding in the North Sea, specimens of *P. pileus* parasitized by larval nematodes and trematodes. The nematodes were present in the mesogloea in the vicinity of the tentacle base, and the larval trematodes in other body tissues. Mortensen notes the latter as more numerous than the nematodes. As *Cyclopterus lumpus* and *Acanthias vulgaris* (now *Squalus fernandinus* Molina) were known to prey on *P. pileus* and as both carried the common nematode *Agamonema capsularia* Dies, Mortensen surmised that the parasites in the ctenophore could in fact be the immature form of *A. capsularia*. The evidence therefore suggests that the larval nematodes may reach the mature stage in either or both of these two fish.

The first record of a parasite in a ctenophore is that of Forbes (1839: 148) who notes from material taken at St. Andrews, Scotland, that "imbedded in the substance of one of these animals, near the stomach, is a remarkable parasitic worm, in shape resembling a *Filaria*". In his Compendium, von Linstow (1878: 333) noted the occurrence of trematodes, cestodes, and nematodes in ctenophores other than *P. pileus*. Lebour (1916: 57) in her account of the late cercaria or metacercaria of trematodes seen in medusae notably *Cosmetira pilosella* Forbes mentioned *P. pileus* as also being host for this form of parasite.