

tion. Moreover, Dr. D. E. Hurley informs me that he is unable to recognize two forms of females amongst material in his possession which includes both "armatus" and "spiniger" males. If there is only one species, then the males are dimorphic, with "armatus" males perhaps being non-breeding or inter-sexes. The latter suggestion might be borne out by the presence of only rudimentary secondary sexual characters in the "armatus" male form. Here the appendix masculina is not separate from pleopod 2 (Fig. 2g) and would appear to be non-functional, the pads of spinous hairs on the pereopods (Fig. 2f) are less dense than in the "spiniger" form and the terminal thoracic spine is small. In addition, the uropods of male "armatus" do not project beyond the telson; their appearance resembles that of female "armatus" and not that of male "spiniger". For convenience the two forms are here regarded as separate species, but it is clear that with more material they would be worthy of further investigation.

#### *Dynamella huttoni* (Thomson)

*Dynamena huttoni* Thomson, 1879.

*Dynamella huttoni* (Thomson). Young, 1929.

Following Hansen (1906) specimens refer to the genus *Dynamella* in the eubranchiate Sphaerominae. Both rami of pleopods 4 and 5 are fleshy and have transverse folds. In addition, pleopod 5 is 2-jointed and pleopods 3 and 4 are not so. Finally, the basal joint of the antennule is not expanded into a free plate and the uropod rami are subequal in length. There are no adult males and females in the collection so the similarity of the sexes cannot be confirmed. However, the presence of an appendix masculina on pleopod 2 of a small male, together with the similarity in appearance of the two rami of each uropod, preclude related genera in Hansen's key. The original figure of this species was unfortunately badly reproduced and the description (Thomson, 1879) is rather limited.

**MATERIAL.** Four specimens: 2 juveniles, 1 small male (6.7 mm in length) and 1 immature female (8.0 mm in length).

**DESCRIPTION.** Body smooth in small specimens (Fig. 3a) but surface granular in the largest (Fig. 3b). Eyes bulbous, particularly in the large specimen. Antennule with 3-jointed peduncle (Fig. 3f). Maxilliped palp with lobes on joints 1, 2 and 3 (Fig. 3e). Pereopods with the small spine on each dactylus bearing a pair of accessory, flange-like spines (Fig. 3c, d). Pleopods 1, 2 and 3 with setae; 4 and 5 without. Endopod of first pair thickened medially, but thin where overlapped by exopod (Fig. 3g). Young male with appendix masculina projecting well beyond the endopod of pleopod 2 (Fig. 3h). Abdomen composed of 4 segments, the last three of which are partially fused. Telson triangular and separated from last three abdominal segments by a complete suture. Telson sides extend ventrally towards each other to form a tube, the sides of which project posteriorly as teeth in small specimens (Fig. 3a). In the largest specimen, a young female, the sides of the tube coalesce so that a hole is formed on the upper surface of the telson (Fig. 3b).

**DISTRIBUTION.** Chatham Islands (Young, 1929); all New Zealand coasts (Chilton, 1906, as *Cymodoce huttoni*). The Schauinsland collection includes material from Cook Strait, as well as from the Chatham Islands. Material which appears to resemble this species is recorded from New South Wales as *Dynamella rubida* Baker (Baker, 1926).

#### *Cirolana arcuata* Hale, 1925

One male is present in the Chatham Islands' collection. It agrees closely with the species described from Australia by Hale (1925), though the shape of the frontal lamina does differ slightly from Hale's description.

**DESCRIPTION.** Body about three times longer than greatest width (Fig. 4a). Antennule extending beyond the peduncle of the antenna, reaching halfway along the first thoracic segment (Fig. 4a, h). Antenna reaching posterior margin of 3rd thoracic segment (Fig. 4a). Eyes fairly large. Ventral surface of head with frontal lamina not pentagonal, much longer than wide, with anterior border somewhat rounded and sides narrowing posteriorly (Fig. 4e). Maxilliped narrow and elongate. 1st pereopod segment embracing base of head, with anterolateral corner obtusely rounded (Fig. 4b). Pereopods stout, armed with spines and setae.