LARVAE OF THE DEEP SEA CRAB CYMONOMUS BATHAMAE DELL, 1971 (DECAPODA, DORIPPIDAE) WITH OBSERVATIONS ON LARVAL AFFINITIES OF THE TYMOLINAE

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INTRODUCTION

The crab genus Cymonomus has been recorded in deep water from most geographic areas of the world. Dell (1971) lists 12 known species and describes two new species from New Zealand waters, C. aequilonius and C. bathamae. One of us (E.J.B.) has collected the latter species repeatedly in canyons off Otago, southern New Zealand at depths ranging between 200 metres and 800 metres.

On 25 May 1971, 13 specimens including nine ovigerous females were trawled from a fine grey mud substrate at 640 metres, 45°46'S 171°5'E, using a two-foot Agassiz trawl with bottom sampler. One female, carapace length including short rostrum 5.0 mm, carrying 17 eggs very close to hatching, was returned alive to the laboratory and kept at about 6° C until most of the eggs hatched over the period 25 May to 6 June 1971. Eggs freshly laid measure 1.2 × 1.0 mm with orange coloured yolk, and increase to about 1.4 mm in diameter when ready to hatch. The maximum number of eggs carried by a female (carapace length 5.1 mm) was 26, while other females between 4.0 mm and 5.0 mm carapace length carried between 11 and 18 eggs (see also Dell, 1971).

The larva described herein is the first of known parentage from the genus Cymonomus or from any genus included by Balss (1957) in the subfamily Tymolinae. Larval terminology and measurements are those employed in previous papers (Wear, 1967; 1970) following Pike & Williamson (1960). Drawings and descriptions are based on three larvae, with the original sketches made on living material.

The parent female together with dissected and entire larvae are deposited in the Dominion Museum, Wellington, New Zealand, no. Z. Cr. 1896.

STAGE 1 ZOEAL LARVA

Larvae emerge from the egg surrounded by a pre-zoeal cuticle which is shed shortly after eclosion. Although it is possible that this thin enclosing membrane
Figs. 1-8. *Cymonomus bathamae* Dell, 1971. Stage 1 zoa larva. 1, larva in lateral view; 2, abdomen and telson in dorsal view; 3, first antenna of left side; 4, second antenna of left side; 5, first maxilla of left side; 6, second maxilla of left side; 7, first, second, and third maxillipeds of left side; 8, pleopods of second abdominal segment.