THE PHYLLOSOMA LARVA OF SCYLLARUS DELFINI (BOUVIER)  
(DECAPODA, PALINURIDEA)  

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INTRODUCTION  

Scyllarus delfini (Bouvier, 1909) is found in the Juan Fernandez Islands off Chile. It has been said to also occur on the coast of Chile and Peru (Balss, 1922: 330). However, De Man (1916) mentions the species as occurring only at the Juan Fernandez Islands and Holthuis (personal communication) who is preparing a monograph of the Scyllaridae, reiterates the occurrence only at these islands. 

The specimen here described is in the final phyllosoma stage as indicated by the presence of a full complement of gills. It was collected by the R/V "Anton Bruun" at 33° 31' S 78° 48' W a short distance north of the Juan Fernandez Islands from whence it most likely drifted in the northward flowing Peru Current. It is clearly a Scyllarus and in view of the locality of the catch and of certain structures not hitherto reported for similar Scyllarus larvae in the Pacific it is here referred to S. delfini. No other species of that genus have been found on the west coast of South or North America.  

DESCRIPTION OF THE LARVA (figs. 1-8)  

Final phyllosoma stage, length 24.7 mm with full complement of gills. The cephalic shield is subcircular with a truncated posterior margin which overlaps the bases of the first pair of pereiopods. The shield is 14.6 mm long and 18.6 mm wide, the greatest width being slightly anterior to the mid section (fig. 1). The thorax is 8.5 mm wide and broadly confluent with the abdomen which is 6.5 mm long including the telson, which is provided with two strong posterior-lateral spines (fig. 2). The uropods are rounded distally. The eye stalks are 2.5 mm long. The peduncular segments 1 to 3 of the first antenna (antennule) are 1.15 mm, 0.85 mm, and 0.75 mm respectively; the outer flagellum is shorter than the inner. The second antenna is about equal in length to the first antenna and with a broad, flanged basal segment (fig. 3). The mouth parts are arranged as in fig. 4; the labrum is somewhat pointed in outline anteriorly and the anterior branch of the first maxilla bears three strong spines. The second maxilla is pointed anteriorly and is without fringing setae. The first maxilliped consists of a pointed anterior branch and a rounded posteriorly directed lobe. The second and third maxillipeds each bear a small exopod bud. Narrow coxal spines are present on the second and third
maxillipeds and on all of the pereiopods. Pereiopods 1 to 4 are provided with short dactyls (figs. 5, 6), subexopodal spines and with exopods bearing 24, 24, 22, and 20 pairs of swimming setae respectively. A full complement of gills is present on the bases and on the thoracic carapace, and a strong dorsal thoracic spine is present at the edge of the thorax adjacent to the bases (fig. 7, sp). Pereiopod 5 is composed of four segments and a dactyl. The pleopods are furcate and the appendix interna is indicated (fig. 8).

The specimen is deposited in the U. S. National Museum, No. 137394.

Remarks. — The presence of dorsal thoracic spines appears to be unique for Scyllarus larvae that have been studied. The only other record I know of is on a different but unidentifed 24 mm (Stage VIII?) Scyllarus from the Hawaiian