NOTES

ON A NEW DISTRIBUTIONAL RECORD OF *PARAPENAEOPSIS TENELLA* (BATE) FROM THE SOUTH EASTERN COAST OF INDIA

Parapenaeopsis tenella (Bate) has been recorded from Japan (Bate, 1888 ; Kishinouye, 1900) ; China (Liu, 1955) ; and Australia (Dall, 1957) in the Pacific Ocean. In 1961 Hall reported it from Malaysia. DeBruin's (1965) record of this species from the east coast of Ceylon extended the distribution of this species further west. Racek and Dall (1965) considered the Palk Strait at the zoogeographical barrier limiting the distribution of the species from the west coast of India where its congener *Parapenaeopsis acclivirostris* (Alcock) occurs. But the present collection of *Parapenaeopsis tenella* from Palk Bay and Gulf of Mannar has established its presence beyond the Palk Strait which obviously does not act as a barrier. The discontinuous distributional records are probably due to the small size of the specimen and hence the rarity in the commercial catches.

Male and female specimens of *Parapenaeopsis tenella* were collected from the early morning landings on the Gulf of Mannar side of Mandapam Camp and the Palk Bay side of Rameswaram Island. The specimens were obtained only from the night catches of shore seines as well as boat seines from depths of 1-2 fathoms and 5-6 fathoms respectively.

Parapenaeopsis tenella (Bate, 1888)

Penaeus tenellus Bate, 1888, pp. 270-71 ; Kishinouye, 1900, p. 22.

Parapenaeopsis tenellus Kubo, 1949, pp. 371-74 ; Liu, 1955, pp. 16-17 ; Dall, 1957, pp. 221-23.

Parapenaeopsis tenella Hall, 1961, p. 89 ; Hall, 1962, p. 26 ; de Bruin, 1965, pp. 98-99 ; Racek and Dall, 1965, pp. 108-109.

Material : 6 ♂♂, 24-33 mm ; 5 ♀♀, 29-43 mm ; Mandapam Camp (Gulf of Mannar and 69 ♂♂, 24-32 mm ; 17 ♀♀, 29-44 mm ; off Thangachimadam (Palk Bay). Depth of occurrence 1-6 fathoms.

Distribution : Southern Japan to northern Australia, northern China through Malaysia to Ceylon and south eastern coast of India.

Discussion : This well described species closely resembling *Parapenaeopsis aclivirostris* (Alcock) could be easily distinguished from it by the presence of the wing-like lateral expansions of the petasma. The appendix masculina has a broad distal piece and bear minute setae. The characteristic tongue-like process and the excavation on the posterio-distal portion are well marked. The thelycum has an anterior plate one and a half times as wide as long with a posteriorly directed tongue-like process enclosed in a shallow depression of the flat anterior thelycal plate. The post-ocular sulcus is distinct, but shallow. Although, the Indian specimens agree with Dall's (1957) description in most of the morphological characters, there are certain differences. Unlike the Australian specimens the rostrum does not reach the

tip of the second antennular segment in Indian forms. Postrostral carina which is indistinct posteriorly, ends at $\frac{1}{3}$ carapace. The stylocerite reaches $\frac{1}{3}$ basal segment of the antennular peduncle. First pereiopod exceeds the pterygostomial angle by the length of the propodus.

The Indian forms are more similar to the Australian forms than the Ceylonese particularly in the following characters :

1. In Indian and Australian forms the rostrum reaches almost to the tip of the second segment of the antennular peduncle while in Ceylonese forms it extends to or exceeds the tip of the third segment of the antennular peduncle.

2. Adrostral carina in Australian and Indian forms ends at $\frac{1}{4}$ the distance from the anterior border of the carapace. But in Ceylonese forms it ends at 1/10th distance from the anterior border of carapace.

3. Fourth pereiopod of Indian and Australian forms extends to the tip of the first segment of the antennular peduncle whereas in Ceylonese forms it reaches upto the middle of the second segment.

The fifth pereiopod reaches the tip of the second segment of antennular peduncle in Australian forms whereas in Indian forms it reaches upto the middle only. In Ceylonese specimens it exceeds the third segment of antennular peduncle (in females). There are 10-12 minute, pointed, forwardly directed spines on the hepatic carina visible under low magnification. Besides, 4-5 similar spines are situated in the anterior portion of the hepatic sulcus. The hepatic spine has an accessory spine at its base on the ventral side and two on the dorsal side. These spines, however, have not been mentioned by any of the previous workers. Ground colour of body is creamy white with red, black and dark brown chromatophores distributed in a definite pattern along the sides of the rostrum, bases of the ophthalmic peduncles, sides of the carapace, posterior margin of the abdominal segments and margins and tips of telson and uropods on freshly preserved specimens.

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* Not referred to in the original.