

DECAPOD CRUSTACEANS NEW TO ANDAMAN AND NICOBAR ISLANDS

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ABSTRACT

During the studies on the taxonomy of Indian decapods, 13 species were collected from Andaman and Nicobar Islands. Of these, 6 penaeids viz., *Penaeus canaliculatus*, *P. merguensis*, *Metapenaeus dobsoni*, *M. affinis*, *M. burkenroadi* and *Parapenaeopsis cornuta*; 2 species of pagurid crabs viz., *Calcinus latens* and *Pagurus janitor* and 1 coenobitid viz., *Coenobita clypeata* were reported from these islands for the first time. Points of taxonomic interest are also discussed.

INTRODUCTION

Thirteen species of decapod crustaceans were collected from the Andaman and Nicobar Islands during a study of the taxonomy of Indian decapod crustaceans. Out of these, 6 penaeid prawns viz., *Penaeus canaliculatus*, *P. merguensis*, *Metapenaeus dobsoni*, *M. affinis*, *M. burkenroadi* and *Parapenaeopsis cornuta* were not reported so far from these islands, so also the pagurids, *Calcinus latens* and *Pagurus janitor* and the coenobitid, *Coenobita clypeata*. Brief discussions of interesting points are given.

Order Decapoda

Suborder Natantia

Section Penaeidea

Family Penaeidae

Subfamily Penaeinae

Penaeus canaliculatus Olivier, 1811

Penaeus canaliculatus Olivier, 1811 : 660; George, 1969 : 21.

Material: 1 male, 10.5 mm; 3 females, 19-19.5 mm.

Locality: Marine Bay, Andamans. Trawl net, depth 2-12 m.

Distribution: Red Sea, South Africa, Mauritius, Ceylon and Pacific Ocean.

Discussion: The telson bears lateral spines which are the distinguishing characters by which this species can be separated from *P. japonicus* which also has more

or less similar colouration while alive. The rostrum is with only one lower tooth as in *P. japonicus*. The thelycum also is characteristic in shape and structure of the anterior plate. *P. canaliculatus* is a new record for the Andamans.

Penaeus merguiensis de Man, 1888

Penaeus merguiensis de Man, 1888: 287-290, pl. 28, fig. 8
and pl. 29, fig. 1; George, 1969:24.

Material: 2 females, 27, 36.1 mm.

Locality: Marine Bay, Andamans. Trawl net, 2-12 m.

Distribution: West Pakistan, southwest coast of India, Ceylon, east coast of India, Mergui Archipelago, Singapore, Hong Kong, Philippines, East Indies, Japan and Australia.

Discussion: This species can be easily distinguished from the other two allied species viz., *P. indicus* and *P. penicillatus* by the presence of the charactersitic deltoid crest at the base of the rostrum which is usually reddish in colour with darker margins, in adult specimens. The gastro-orbital carina is clearly defined in adults as Dall (1957) has pointed out in the case of his material from Karachi, although this was not the case in his specimens from Australia. This species is collected and reported from the Andaman Island for the first time.

Metapenaeus dobsoni (Miers, 1878)

Penaeus dobsoni, Miers, 1878:302-304, pl. xvii, fig. 2.

Metapenaeus dobsoni Nobili, 1903:3; Nataraj, 1942:468; Menon,
1956:346; Dall, 1957:183; Hall, 1962:25; Racek
and Dall,
1965:80-81; de Bruin, 1965:80; George, 1969:29.

Material: 3 males, 9.5-11.2 mm.

Locality: Marine Bay, Andamans. Trawl net, 2-12 m.

Distribution: Gulf of Suez, west coast of India, Ceylon, east coast of India, Malaya, Hongkong, Japan and Australia.

Discussion: The material on hand is in full agreement with the previous descriptions. The free filaments of the distomedian projections of petasma on the dorsal aspect are well developed in the adult specimens as noticed by Racek and Dall (1965). The impregnated females have conjoined white pads on the thelycum as in *M. lysianassa*. This is the first report of *M. dobsoni* from Andaman Island.

Metapenaeus affinis (H. Milne Edwards, 1837)

Metapenaeus affinis George, 1969:31-32; 107-117.

Penaeus affinis H. Milne Edwards, 1837:416.

Material: Several juveniles, males, 10.3-17.4 mm; females, 9.9-15 mm.

Locality: Marine Bay, Andamans. Trawl net, 2-12 m.

Distribution: West coast of India, Ceylon, east coast of India, Malaysia, Hong Kong, Japan and Australia.

Discussion: The distinguishing characters of the species are well defined in the material on hand. In spite of the differences of opinion regarding the taxonomic status of this species from the Indian waters it is certain that the view of Racek and Dall (1965) regarding the synonymy of *M. mutatus* and *M. nicopinans* Hall (1956, 1961) holds good. This is the first record of the species from Andamans.

Metapenaeus burkenroadi Kubo, 1954

Metapenaeus burkenroadi Kubo, 1954:92-93; Dall, 1957:183;
Racek, 1957:6-7; Cheung, 1960:66-68;
George, 1964:313-314; de Bruin,
1965:78-79; Racek and Dall, 1965:72-73.

Material: 1 male, 11.1 mm; 1 female, 13.8 mm.

Locality: Marine Bay, Andamans. Trawl net, 2-12 m.

Distribution: West coast of India, Ceylon, Hong Kong, Japan and Australia.

Metapenaeus burkenroadi is here reported from Andaman Island for the first time.

Discussion: The specimen on hand shows all the distinguishing characters of the species given by the original author and subsequent workers. But, the variations found in the ceylonese specimens by de Bruin (1965) are also noticed in the present material. The distance between the rostral teeth are variable in specimens examined from Palk Bay and Gulf of Mannar, also by the present author. Similarly, the pubescence on the dorsal surface of the carapace is more prominent in females than in males. Females have first four and the last two abdominal segments less glabrous than those of males, although, in both the sexes the fifth and sixth segments are more pubescent than the preceding segments.

Section Anomura

Family Diogenidae

Calcinus latens (Randall, 1839)

Calcinus latens Fize and Serene, 1955:58-66, fig. 9, A, B, C;
pl. 2, 9, 10, 11; Lee, 1969:55-56.

Material: 2 males, 6.5, 7.5 mm, in shells of *Strombus* sp.

Locality: Marine Bay, Andamans. 2 m.

Distribution: Red Sea, Maldives, South Africa, Western Indian Ocean, Philippines, East Indies, Japan, Australia and Pacific Ocean. This is a new record from Andamans.

Description: Carapace with short rostrum which is pointed and triangular, more prominent than the antennal angles. Eyestalks more than one-third the anterior border of carapace, longer than antennular and antennal peduncles. Ophthalmic scales simple and pointed anteriorly. Antennular peduncle longer than the antennal peduncles. Antennal acicle with serrated outer margin and provided with a few spines on inner aspect, reaching nearly one-fourth the terminal joint of antennal peduncle.

Left cheliped larger than right, upper border of merus faintly serrated. Upper border of carapace with a spinule at the far end and bears a conspicuous tubercle near the middle, at the proximal end. Merus has a pair of spinules at the far end, near distal extremity. Setae are sparsely arranged near the inner aspect of fingers. Fingers meeting at tip with obscure teeth on inner aspect. Right chelipeds with large terminal tooth, distally on the inner side of the carpus. Superior surface of palm with a crest of five stout, dark-tipped spines extending the entire length of palm, each spine with setae at base. Inner border of free finger also toothed. Tips of fingers typically spooned. Lower inner aspect of merus with two sharp and one blunt spine. Setae long and sparse. Second and third legs with distal tooth on carpus. Long thin tufts of setae on the distal end of propodus and dactylus, rest with sparsely arranged small setae.

Colour: In preserved specimens, the colour of the bases of dactyli of second and third legs dark purple, rest of the body being yellowish and light red in colour.

Family Paguridae

Pagurus janitor (Alcock, 1905)

Eupagurus janitor Alcock, 1905a:132-133, pl. 11, fig. 6; 1905b:
832-833, pl. 68, fig. 2, 4; Balss, 1916:10; Laurie, 1926:
162; Estampador, 1937:505; Yap-Chiongco, 1938:208.

Pagurus janitor Dechance, 1964:37.

Material: 2 males, 9.5, 14 mm., in shells of *Trochus* sp.

Locality: Marine Bay, Andamans. 2 m.

Distribution: Red Sea, Maldives, western Indian Ocean and the Phillipines. The present record extends the distribution of the species to Andamands also.

Description: Carapace elongate; rostrum broadly triangular, with pointed tip which is more prominent than the antennal angles; eyestalk short, less than anterior width of carapace. Cornea dilated and reniform. Ophthalmic scales broad and separated at bases, pointed anteriorly and ending in a sharp spine. The narrow anterior portion has a groove on the dorsal surface. Antennular peduncle shorter than antennal peduncle and longer than ophthalmic stalks. Antennal acicle elongated, slightly curved outwards and extending well beyond the base of the last antennal segment.

Chelipeds unequal, right vastly larger and thickly covered with setae which partly conceal the spines and granules; scattered spines and granules present on the dorsal surface of carpus and chela and their margins. Cutting edges of fingers close without leaving any space. Lower side of cheliped less setose. Second and third legs with long setae on superior surface although, some scattered setae are present on the lower margin also.

Colour: Colour of preserved specimens cream with light brown patches; eyestalks dark brown; antennal flagella pale yellow.

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