

DECAPOD CRUSTACEANS NEW TO THE LACCADIVE ARCHIPELAGO

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ABSTRACT

Three penaeid prawns, *Penaeus latisulcatus* Kishinouye, *Penaeus canaliculatus*, Olivier and *Trachypenaeus curvirostris* (Stimpson), one alpheid shrimp, *Athanas dorsalis* (Stimpson), one gnathophyllid shrimp, *Hymenocera elegans* Heller and one pagurid crab, *Clibanarius stiolatus* are collected from the Laccadive Archipelago. All these decapods are reported for the first time from this locality.

INTRODUCTION

Several species of decapod crustaceans were collected from the Laccadive Archipelago as a part of the extensive studies on the taxonomy of this group. These are compared with earlier descriptions and only the points of interest are discussed in the present communication. Notes on colour in some of the species are also given. Measurements in this account relate to carapace length.

Family : Penaeidae

Subfamily : Penaeinae

Penaeus latisulcatus Kishinouye, 1900

Penaeus latisulcatus Kishinouye, 1900:12 ; Thomas, 1971:191-192.

Material: 41 specimens. Androth Island: 2 males, 13, 19 mm; 1 female, 17 mm; Minicoy Island: 28 males, 12-21 mm; 10 females, 14-21.5 mm. Collected from shallow water (2-4 m).

Remarks: The present material agrees with the description given by Dall (1957) and others. It, however, differs from the description of de Man (1888) in the following: The bifid processes of the anterior plate of the thelycum are stumpy in young specimens while they are slender with their tips turning inwards, in the adults. This difference was also observed in the material collected from the Palk Bay and Gulf of Mannar (Thomas 1971).

Distribution: Red Sea, South Africa, west coast of India, Ceylon, Singapore, Japan, Taiwan, East Indies and Australia.

This is the first record of the species from the islands of the Laccadives.

Penaeus canaliculatus Olivier, 1811*Penaeus canaliculatus* Olivier, 1811:660; George, 1969:21.**Material:** 2 specimens. Minicoy Island: 1 male, 16.5 mm; 1 female, 18.4 mm (2-4 m).**Remarks:** Rostrum with only one lower tooth as in *Penaeus japonicus*; but, telson with lateral spinules. Thelycum is with a characteristic anterior plate with pointed tip. In general, the colour of fresh specimen resembles that of *P. japonicus*.**Distribution:** Red Sea, South Africa, Mauritius, Ceylon, East Indies and Pacific Islands.

This is a new record from the Laccadive Archipelago.

Trachypenaeus curvirostris (Stimpson 1860)*Penaeus curvirostris* Stimpson 1860:44; Kishinouye 1900:23.*Trachypenaeus curvirostris* George 1969:33-34; Jones 1969:743.**Material:** 1 specimen. Minicoy Island: 1 male, 8 mm (2-4 m).**Remarks:** The species has been well described by previous workers. The rostrum in the present specimen from the Laccadives as well as the smaller specimens collected from Palk Bay and Gulf of Mannar were almost straight with slightly upturned tips as noticed by Hall (1962).**Distribution:** Red Sea, west coast of India, Ceylon, Singapore, East Indies, China, Hong Kong, Taiwan, Japan and Australia.

The range of distribution is now extended to Laccadive Archipelago.

Family : Gnathophyllidae

Hymenocera elegans Heller, 1861*Hymenocera elegans* Heller, 1861:264, fig. 9-14; Hilgendorf, 1878:828;

de Man, 1902:822, fig. 52; 1920:191-192; Nobili,

1906:69; Borradaile, 1917:410; Edmondson, 1923:

30-33, fig. 2a-j, fig. 3a-f; Barnard, 1946:390.

Material: 1 specimen. Kadamat Island: 1 berried female, 39 mm (3 m).**Remarks:** Though the characters agree with the description given by de Man (1920), there are certain differences. The rostrum in the present material reaches upto the base of the third antennular segment, while in the specimens collected by the Siboga Expedition it reaches only beyond the middle of the second segment. There are seven teeth on the dorsal and two on the ventral side of the rostrum, posteriormost two of the dorsal teeth being situated on the carapace and the third above the posterior border of the orbit. The posteriormost tooth on the ventral series is just in front of the distalmost dorsal tooth.

Telson is 1/7.5th the length of the specimen, its maximum breadth being only a little less than its length. It terminates into a strong spine and bears laterally two pairs of spines. Also, on either side of the terminal spine, there is a seta and a pair of spines - a short outer (1/3rd the length of the inner) and a long inner. Uropods longer than telson. Exopodite of the uropod is shorter and narrower than the endopodite and bears two spines on the outer end of the transverse suture.

Inner antennular flagellum is foliaceous while the outer one is short, whip-like and a little longer than the length of the inner. The distal three segments of endopodite of the third maxilliped are expanded. It is probable that the more slender rami of pleopods on young specimens may become broader as the specimens grow so that they serve to cover the entire egg mass as seen in the material on hand.

The present specimen agrees with Nobili's (1906) description of ovigerous specimens of same size collected from Djibouti in the structure of the pleopods, antennular peduncle and third maxilliped.

Colour: Freshly preserved specimens are cream coloured with brown shade on middle and base of rostrum. Yellow dorsal bands across the first abdominal segment, becoming bright orange towards the pleuron, these bands turning lighter towards the posterior segments. Fifth segment and telson are white, while the sixth is yellow. Endopodite of uropod is yellow distally and the exopodite is white. Pereiopods with yellow and brownish bands on segments. Pleopods are whitish.

Distribution: Red Sea, Western Indian Ocean, East Indies and Pacific Ocean.

The present report extends the distributional record of the species to Laccadive Archipelago.

Family : Alpheidae

Athanas dorsalis (Stimpson 1860)

Arete dorsalis Stimpson, 1860:32.

Athanas dorsalis Banner and Banner, 1960:151-154;

Sankarankutty, 1963:167-171.

Material: 2 specimens. Minicoy Island: 1 male, 6.1 mm; 1 berried female, 6.25 mm. Both collected from the oral surface of the black sea-urchin, *Stomopneustes variolans* (Lamarck) in depth of 1-2 m.

Discussion: Rostrum is broadly triangular, without dorsal carina and orbitorostral groove and extends to the middle of second antennal segment. Stylocerite is elongated, reaching to middle of the distal antennular segment.

The basal segment of antenna with a well developed outer terminal spine, extending a little beyond the tip of the antennal scale. Inner antennular flagellum as long as carapace and only half the length of the carapace.

Larger chela with short ischium which is broader than long and with an anterior spine on each of the outer and inner borders. Merus is 2.2 times as long as broad; carpus is as long as broad and palm longer than fingers. Fingers are pointed and curved at the tips where they cross each other. Telson is less than four times the posterior margin.

Colour: Colour in live condition is as that of the sea-urchin. On preservation the colour fades to a deep chocolate with lighter yellowish cross bands on each of the segments of the chelipeds, and a longitudinal one extending upto the chela. Antennular flagellum turns yellowish while setae on the appendages become white.

Distribution: Red Sea, Indian Ocean, Gulf of Mannar, Indonesia, Hong Kong and Pacific Ocean.

This species is reported from the Laccadive Archipelago for the first time.

ANOMURA

Family : Diogenidae

Clibanarius striolatus Dana, 1852

Clibanarius striolatus Dana, 1852:463; Fize and Serene, 1955:
97-105, figs. 13, A,B,C; pl. III, 4.

Material: 4 specimens. Minicoy Island: 2 males, 16.5, 17.75 mm; 2 berried females, 13.5, 14.00 mm. Collected from the coral reef in 1-3 m depth.

Remarks: Rostrum is short, not reaching the base of ophthalmic scales. Antennule is shorter than eye stalk which is equal to anterior border of carapace. Antennular flagellum is 1.6 times the length of carapace. Antennal acicle reaches only to the base of last joint of antennular peduncle. Ocular peduncle is without longitudinal brown bands unlike as in *C. padavensis*. Red stripes on legs.

Colour: In freshly preserved specimens, carapace is red with brown and white patches and an anteriomedian brown blotch. Antennular and antennal peduncles are violet; chelipeds with white spines and the tips of fingers are dark. Walking legs have reddish brown horizontal bands interspersed with white spots and dark claws. Tergal plates of the abdomen are with white and reddish brown spots. Setae are reddish brown.

Distribution: Red Sea, Arabian Sea, Western Indian Ocean, Ceylon, Mergui Archipelago, Penang, Nicobar Island, Philippines, Viet Nam, Japan, China and Pacific Islands.

The range of distribution of this species is now extended to the Laccadive Archipelago.

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