

ON SOME NEW RECORDS OF CRABS AND LOBSTERS FROM MINICOY,
LAKSHADWEEP (LACCADIVES)

M. M. MEIYAPPAN AND M. KATHIRVEL*

Central Marine Fisheries Research Institute, Cochin-682 018

ABSTRACT

New records of brachyuran crabs such as *Grapsus albolineatus* Lamarck, *Cardisoma carnifex* (Herbst), and lobsters *Parribacis antarcticus* (Lund) and *Panulirus homarus* (Linnaeus) from Minicoy Island together with the morphological variations observed in the spiny lobster *Panulirus penicillatus* (Olivier) are reported.

INTRODUCTION

THE BRACHYURAN crabs and lobsters of Lakshadweep have been studied by Alcock (1895, 1896, 1898, 1899 a, b, 1900), Borradaile (1903, 1906) and Chopra (1933). While Alcock reported 41 species of crabs, 52 species of crabs and 2 species of palinurid lobsters were recorded by Borradaile and 1 species of crab by Chopra. Later Sankarankutty (1961 b) added 15 species of crabs. Studies on the collections made during 1973-74 by the senior author revealed the occurrence of *Grapsus albolineatus* Lamarck, *Cardisoma carnifex* (Herbst), *Parribacis antarcticus* (Lund) and *Panulirus homarus* (Linn.) in Minicoy Island for the first time.

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* Present Address: Madras Research Centre of Central Marine Fisheries Research Institute, Madras-600 105.

ORDER : DECAPODA

SUBORDER : BRACHYURA

Family : *Grapsidae*

Grapsus albolineatus Lamarck, 1818

Grapsus strigosus Henderson, 1893, p. 390; Alcock 1900, p. 393; Chopra and Das, 1937, p. 425; Barnard, 1950, p. 115; Pillai, 1951, p. 34; Chhapphar, 1957, p. 515.

Grapsus albolineatus Banerjee, 1960, p. 147; Sankarankutty, 1961 a, p. 108.

Material : 2 males 30 mm long and 34 mm broad; 36 mm long and 42 mm broad. 3 females 23 mm long and 27 mm broad; 32 mm long and 36 mm broad; 36 mm long and 42 mm broad.

Locality : Inter-tidal region of the eastern side of the Island.

Remarks : In one of the males in the collection (measuring 42 mm broad), there is an additional spine on the anterior border of the arm of the right cheliped while the left chela possesses the normal compliment of three spines only.

Distribution : The species is widely distributed throughout the Indo-Pacific region from Red Sea and west coast of Africa to Japan,

the Polynesian Islands and Hawaii. It has been reported from Rameshwaram, Tuticorin (Henderson, 1893), Baluchistan, Sind coast, Andaman and Nicobar Islands (Alcock, 1900), Travancore (Pillai, 1951) and Bombay (Chhapphar, 1957). This is the first record of the species from Minicoy, as also from the Lakshadweep.

Family : *Gecarcinidae*

Cardisoma carnifex (Herbst, 1794)

Cancer carnifex Herbst, 1794, p. 263.

Cardisoma carnifex Alcock, 1900, p. 445 ; Borradaile, 1903, p. 97.

Cardisoma carnifex Tesch, 1918, p. 137 ; Barnard, 1950, p. 110 ; Sankarankutty, 1962, p. 161.

Material : 1 male, 91 mm long and 112 mm broad.

Locality : Sandy beach on the lagoon-side of the Island.

Remarks : The appearance of bristles on the merus of the walking legs agrees with the description given by Alcock (1900). The species is rarely seen in the Minicoy Island. The present specimen was obtained at a distance of about 8 metres above the low water mark and there was no trace of crab castles in the vicinity.

Distribution : Gulf of Mannar (Henderson, 1893) ; Andamans, Tahiti and Madagascar Alcock, 1900) ; Maldives (Borradaile, 1903) ; East coast of Africa (Barnard, 1950). This is the first record of the species from Minicoy as well as from Lakshadweep.

SUBORDER : MACRURA

Family : *Scyllaridae*

Parribacus antarcticus (Lund, 1793) (Fig. 1)

Scyllarus antarcticus Lund, 1793, p. 22.

Cancer (Astacus) urrus major Herbst, 1793, p. 82.

Parribacus antarcticus Dana, 1952 a, p. 14.

Parribacus ursus major deMan, 1916, p. 93 ; Barnard, 1950, p. 565.

Parribacus antarcticus Holthuis, 1946, p. 102.

Material : 1 male, total length 181 mm (Carapace length 70 mm).

Locality : From a coral crevice in the lagoon at a depth of 3 meters.

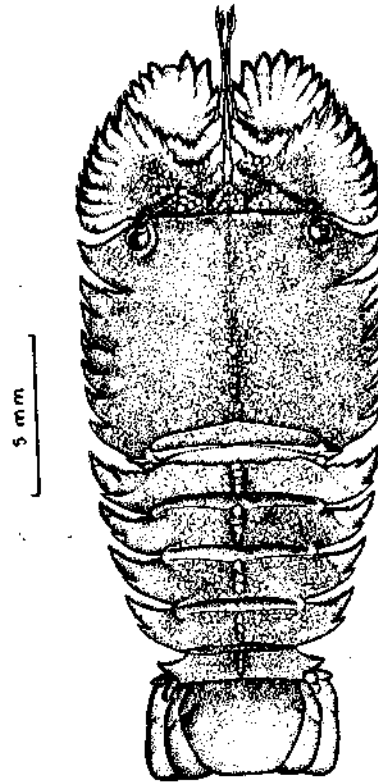


Fig. 1. *Parribacus antarcticus* (Lund) from Minicoy.

Remarks : Since this is the first record of the genus *Parribacus* Dana from Indian waters, a short description of the present male specimen of *P. antarcticus* is given here. Antenna, carapace, abdomen and spiny portion of the telson covered with rounded squamiform tubercles ; each tubercle surrounded by a fringe of hairs ; rostrum with an indistinct tooth, 4 more teeth before the cervical groove on the mid-line of carapace, of which the last three placed rather close ; cardiac tooth distinct and blunt, but not erect ; behind the cardiac tooth, 7 groups of submedian teeth ; teeth on the orbital margin blunt, but those on the

anterior border are somewhat pointed; totally 8 spines on the lateral border of carapace, of which two are placed before the cervical incision; a narrow groove on the posterior margin of carapace; distal segment of the antenna with 7 large sharply pointed teeth, one inner tooth and 4 smaller teeth on the outer margin; (de Man, 1916) observed 6 and 7 spines on the outer margin of the left and right antennae respectively); exopod of the first, second and third maxillipeds with unsegmented flagellum; transverse groove on the abdominal somites devoid of hairs and tubercles, they are broad in the first two and narrow in the rest of the somites; pereopods slender; sternum with a pit in between the fourth walking legs; pleopods with elongated endopod and exopod which diminish in size from second to fifth abdominal somites. Colour of the specimen at the time of capture was bright yellow with a few scattered brownish blotches on carapace and abdomen; orange spots on the proximal and distal part of the spines of the antennae.

Distribution : The species is known throughout the Indo-Pacific (from east coast of Africa, Mauritius, Sumatra, Philippines, Australia, Formosa to Japan) and in the Atlantic (Caribbean Sea and coast of Brazil). This is the first record of the species from Indian waters.

Family : *Palinuridae*

Panulirus homarus (Linnaeus, 1758)

Panulirus burgeri Calman, 1925, p. 21.

Panulirus dasyopus Gravely, 1927, p. 138.

Panulirus homarus George, 1963, p. 3; George and Rao 1967, p. 331.

Material : I male, total length 188 mm (carapace length 65 mm).

Locality : From coral reef in the intertidal region on the eastern side of the Island.

Remarks : The crenulated grooves of the third, fourth and fifth abdominal somites are interrupted in the midway.

Distribution : Widely distributed in the Indo-Pacific from South Africa through Red Sea, South coast of Arabia and Indian seas to East Indies and Japan. This is the first record of the species from Minicoy.

Along with these new records, specimens of another palinurid lobster, *Panulirus penicillatus* (Olivier) which is the most commonly found in the Island were also collected. Previously Borradaile (1906) recorded the dried shells of the species from this area. The morphological variations observed in *P. penicillatus* of the present collection are given below.

In a specimen measuring 112 mm in carapace length, there is an additional spine along with normal anterior and posterior spines on the right side of the antennular plate. In another specimen measuring 174 mm in total length, the grooves present on the third and fourth abdominal segment are interrupted in the middle. Normally, the interruption of the groove in the midway is known in *P. homarus* among the grooved forms of the genus *Panulirus*. The pleura of somites II to IV of the abdomen showed teeth, which in some specimens, are very distinct, acute and constant in number, while in others they are inconspicuous and less in number or totally absent.

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