

## A Rare Record and Occurrence of Sibling Species of Squat Lobster Genus *Munida* (Crustacea: Decapoda: Family: Munididae) off Pearl Coast of India

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### Abstract

Multi number of specimens of squat lobsters belonging to the families Munididae, Munidopsidae and Eumunididae were collected only seasonal occurrence and specific month of collection, off Pearl coast of India. The present investigation of deep sea crustacean studies revealed that the presences of genus *Munida andamanica* Alcock, 1894 only one specimen were caught, off pearl city, India. The occurrence of genus *Munida andamanica* is being reported off pearl city, providing a new arrival of this coast and described taxa. This indication of deep sea squat lobster, is being confirmed that the crustacean biodiversity richness of Gulf of Mannar, it clear view of geographic range distribution. Genus *Munida* from the southeast and west coast of Indian Ocean is also reported.

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### Introduction

Deep sea research investigation of deep sea fauna and flora has since revealed a unique quality and highly diverse fauna subject to a different range of multi mileu parameters and variable, to be assessing near future for using deep learning neural network system through satellite. *Munida andamanica* Alcock, 1894, the occurrence of this specimen only for accidental by-catch specimen, between the region 08° 52'12.1"N 78° 47' 34.7"E at a depth 300m, away from 37.6 miles, pearl city coast of India, the horizontal distributions of fauna of squat lobster on the continental margin are less well understood than vertical migration of depth related up to 1000m in particular. Our knowledge of the deep sea marine squat lobster and other fauna and its distribution is still in a "discovery stage" at Pearl coast. Deep sea fauna above 310m, to explore the vertical migration and the continental margin, a new species will continue to be discovered. The squat lobsters (Galatheoidea and Chirostloidea) are being used to present investigation study pattern of crustacean biodiversity on continental margins at a global scale. Among squat lobsters families, Eumunididae (Milne-Edwards and Bouvier, 1900), Munididae (Ahyong, *et al.* 2010) and Munidopsidae (Ortmann, 1898), have been reported more than 150 species, for the genera Eumunida, *Munida*, and *Munidopsis* respectively (Macpherson, 2007; Baba, *et al.* 2008). The present investigations of known species of the genus *Munida*, off pearl east coast of India is also distribution of first record of pearl coast. *M. andamanica* the present report showing that the distribution from Arabian Sea, Andaman Sea, Somali Republic, West Sumatra, Indonesia, Philippines, Japan, Australia, Indo West Pacific region and off Pearl east coast of India.

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Superfamily: Galattheoidea Samouelle, 1819  
Family: Galatheidae Samouelle Ahyong, 2010  
Genus: *Munida* Whiteaves, 1874  
*Munida andamanica* Alcock, 1894  
Alcock, 1901: 242  
Lloyd, 1905: 2  
Kemp & Sewell, 1912: 25  
Balss, 1913b: 17  
Doflein & Balss, 1913: 143  
Yokoya, 1933: 63  
Miyake, 1982: 149, pl. 50, figure 1  
Baba, 1982a: 103  
Baba, 1988: 85  
Tirmizi & Javed, 1993: 115, figs 50–53  
Baba, 2005: 90, figs 33–35, 258

#### **Remarks**

The description given by Alcock (1901) agrees with present specimen. The carapace of this specimen is illustrated in (Figure 3) a pair small spines are present in immediately behind the large gastric pair which are in line with the supra-orbital spines. These small spines are present in present specimens and may be quite conspicuous; based upon the geographical ground depends of proper nutrients of environment. The eyes are large and globular but the conspicuous fringe of setae mentioned by Alcock (1901). The chelipeds are less than twice the length of the carapace except in a male specimen. The chelipeds are beset with long plumose setae which may give a feathery look to the appendage, when fresh condition of by-catch specimen (Figure 5). The second, third and fourth legs agree with description given by Alcock, except long chelipeds are present.



**Figure 1:** *Munida andamanica* Alcock, 1894 Dorsal view.



**Figure 2:** *Munida andamanica* Alcock, 1894 Ventral view.



**Figure 3:** *Munida andamanica* Alcock, 1894  
Carapace and anterior part of abdomen.



**Figure 4:** *Munida andamanica* Alcock, 1894- Anterior part of cephalothorax, showing antennule, antenna and ventral.



**Figure 5:** *Munida andamanica* Alcock, 1894- Right dorsal.

**Colour**

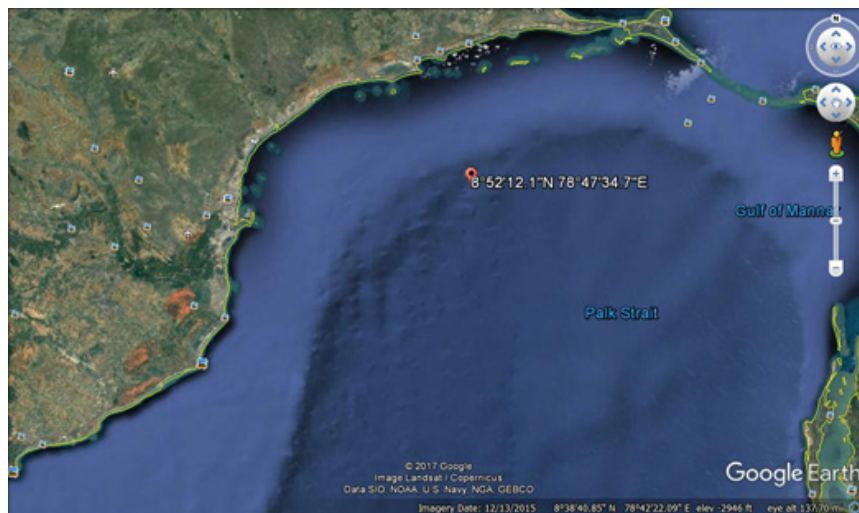
The carapace, anterior part of the abdomen (segments 1-3), and appendages are reddish pink, while the posterior half of the abdomen including the tail fan is white; P1 fingers are white with reddish tips and P2-4 are white on the proximal half, reddish on the distal half; the base of the rostrum are deep red in colour. While, accidental by-catch fresh specimen is muddy and sand soil with red and catchy in colour. Alcock (1894) quite well agree with specimen are “cephalothorax and appendages pink, abdominal region white”.



**Figure 6:** *Munida andamanica* Alcock, 1894- Sternal plastron.

**Record**

One specimen, measuring 4.1 cm total length and 5 gm in weight (Figure 1, 2, 3, 4, 5, 6) 08° 52'12.1"N 78° 47' 34.7" E (Figure 7), at a depth of 300m, off Pearl coast of India.



**Figure 7:** Overview map of the Gulf of Mannar coast, showing the sampling site of *Munida andamanica* Alcock, 1894 of Pearl coast (08° 52'12.1"N 78° 47' 34.7"E, 300m).



### Distribution

Off East coast of Somali Republic, Arabian Sea, Andaman Sea, West coast of Sumatra, Central Queensland, Indonesia, Philippines, Okinawa Trough, Kyushu Palau Ridge, Japan from East coast of Kyushu northward to Bungo Strait, Tosa Bay, off Owase, Suruga Bay, Sagami Bay, and Izu Shoto, Indo-West Pacific including North east coast Qld (Baba, 2005); first record, off Pearl east-coast of India.

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