



Note

Occurrence of the deep sea squat lobster *Eumunida funambulus* Gordon, 1930 in Kavaratti, Lakshadweep

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ABSTRACT

Eumunida funambulus Gordon, 1930 a deep sea squat lobster is reported from Lakshadweep. A single female specimen was obtained from Kavaratti, this being the third record of its occurrence from Indian waters and the first report from Arabian Sea off south-west India, after nearly four and half decades.

Keywords: *Eumunida funambulus*, Kavaratti, Lakshadweep, Squat lobster

Eumunida funambulus Gordon, 1930 (family: Euminididae) is a squat lobster belonging to the super family Chirostyloidea of the infra order Anomura. Besides squat lobsters, the anomurans include hermit crabs, mole crabs, king crabs and porcelain crabs. They are the most diverse group of crustaceans, representing a broad array of body forms and functions (Bracken *et al.*, 2009). Majority of the species under the genus *Eumunida* have been recorded from Pacific Ocean (Baba *et al.*, 2008), but *E. funambulus* is a rare species in the Indo-Pacific region. It inhabits a depth of 90-750 m (Baba, 1988). A total of 192 species have been recorded worldwide, under the family. Twenty three species of *Eumunida* from Pacific Ocean, three each from Indian Ocean and Atlantic Ocean are recorded so far (Baba *et al.*, 2008).

Taxonomic description of *E. funambulus* (Fig.1A) :

Order : Decapoda
Infraorder : Anomura MacLeay, 1838
Superfamily : Chirostyloidea Ortmann, 1892
Family : Euminididae A. Milne Edwards & Bouvier, 1900
Genus : *Eumunida* Smith, 1883
Species : *Eumunida funambulus* Gordon, 1930

One specimen of *E. funambulus* was caught on 12.5.2011 during the water cooling operation of the National Institute of Ocean Technology (NIOT) commissioned desalination plant at Kavaratti Island (10°33'N; 72°38'E). The specimen was obtained while pumping seawater from a depth of 300 m and was identified following Gordon (1930) and Baba (1988). The specimen is deposited in the marine biodiversity repository of the Central Marine Fisheries Research Institute, Kochi (Acc. No. ED.4.4.1.1).

The specimen obtained was a female with total length 106.64 mm, carapace length 62.10 mm, rostral length 21.85 mm, length of right cheliped 203.04 mm, length of left cheliped 193.77 mm, length of dactylus of right chelate leg 53.13 mm, length of dactylus of left chelate leg 50.99 mm, length of propodus of right chelate leg 91.06 mm and length of propodus of left chelate leg 90.08 mm.

Carapace with transverse striae, narrow anteriorly and widening towards the posterior portion (Fig. 1B). Carapace 2.84 times the rostral length. Rostrum with a pair of spines on either side, last shorter (Fig. 1C). Outer orbital angle produced into a spine. Four pairs of hepatic spines on carapace with two minute ones in midline. Lateral spines on the rostrum seven in number with minute spines in between the anterior ones. Length of lateral spines decreases posteriorly. Their first thoracic appendage is extremely long and slender ending in pincers (Fig. 1D). Palm thickly covered with hair. Inner margin of fingers dentate. Abdomen smooth without spines. Abdominal pleurae rounded at the ends (Fig. 1F). Third sternal plate with a pair of spines directed straight with a notch in between the two spines (Fig. 1G). Sternal plate bearing cheliped with laterally directed spines, one each on left and right side. Right cheliped slightly longer than left. Spines present on the propodite of walking legs (Fig. 1E). Spines on propodus of first walking leg 12-15 on ventral margin and 17-19 on dorsal margin; 10-12 spines present on ventral and 12-14 on dorsal margin of last walking leg. Uropods and telson form a broad tail fan structure.

Body orange in colour with the tips of the rostral spines white/cream in colour. One white spot is present

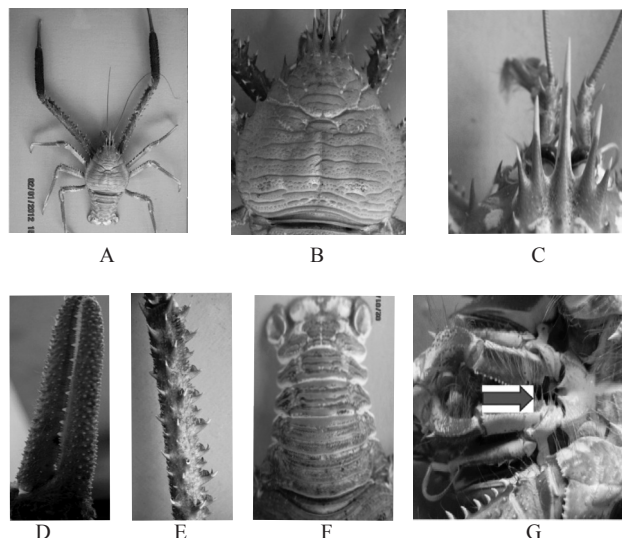


Fig. 1. *Eumunida funambulus*. A. Dorsal view, B. Carapace dorsal view, C. Rostral spines, D. Finger of cheliped with dentate margin, E. Spines on propodus of walking leg, F. Abdomen with telson and uropod, G. Anterior part of sternal plate

on lateral hepatic region of carapace. Spines on the chelipeds are dark orange with white tips. Uropods and telson are with white patches.

Gordon (1930) divided the species under the genus *Eumunida* into two groups A and B based on the presence and absence of spines on the first sternal plate. *E. funambulus* belongs to the group A of Gordon with spines on the first sternal plate bearing the chelipeds. This single specimen agrees well with the original description of Gordon (1930) though it differs in the number of spines on the walking legs. George and Rao (1966) also recorded more number of spines on the propodite of walking legs though the exact number is not mentioned. In the present study the length of the dactylus differs between the left and right, thus making the right cheliped slightly longer than the left.

The species has been recorded previously from Gulf of Aden - 476 m (Type locality), Socotra Channel, between Aden and Bombay, south of Timor, Madura Strait of Java (128-730 m), north coast of Sumatra, Timor Sea off Darwin (Northern Territory), North Sulawesi, the Philippines, between Luzon and Samar (92-183 m), off North Mindanao, Celebes Sea between Cebu and Bohol (376 m), South China Sea off

South-west Luzon (209-309 m), Taiwan, and Japan (130-150 m) (Gordon, 1930; Baba, 1988, 2005).

From India, *E. funambulus* has been recorded two times previously - from Arabian Sea off Alapuzha, 339 m, south-west coast of India (George and Rao, 1966) and off Thoothukudi, 300 m in Gulf of Mannar (Vaitheeswaran and Venkataramani, 2012). The present report is the third from Indian waters, after a gap of 48 years of its first report.

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