

24. A NOTE ON THE CAPTURE OF 'GIANT ISOPOD', *BATHYNOMUS GIGANTEUS*
A. MILNE EDWARDS, 1879 OFF MANGALORE COAST, INDIA¹

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Isopods are a large, diverse order with ten named suborders and approximately 10,000 species. They are found in all seas and at all depths, in fresh and brackish waters, and on land. The Giant isopod *Bathynomus giganteus* A. Milne Edwards, 1879 (Richardson 1905) is the largest marine isopod species recorded in the world. It is reported to occur in a wide depth range from 170 to 2,140 m and grows up to 400 mm in length. *Bathynomus giganteus* was found for the first time in 1878 off the coast of Dry Tortugas in the Gulf of Mexico and is reported to have distribution off Gulf of Mexico; Atlantic Ocean; Bay of Bengal and Arabian Sea (Brusca *et al.* 1995).

The *B. giganteus* reported here was caught in a trawl net operated by deep sea trawlers off Mangalore coast from a depth of 150 m on April 07, 2004. Even though the species is reported to have a wide distribution, the incidences of their

capture by fishing vessels from Indian waters are very rare. Earlier records of the species were from Thoothukudi, Tamil Nadu (Srikrishnadhas and Venkatasamy 2003) and Ezhimala, Kannur (Jacob and Narayankutty 2006). This male specimen caught off Mangalore measured 255 mm in length and 103 mm in width.

The body of *Bathynomus giganteus* is divided into three distinct regions: head (cephalon), thorax, and abdomen (pleon); the first segment of the thorax is fused to the head. The remaining seven free segments (pereonites) of the thorax comprise the pereon; each bears a pair of uniramous legs, or pereopods. The pereopods are modified for locomotion and for latching onto the prey. The abdomen primitively consists of five free segments (pleonites) plus a fused 6th pleonite + telson (pleotelson). Each pleonite bears a pair of biramous pleopods, which are used for swimming and for respiration.

MISCELLANEOUS NOTES

They have compound eyes, two pairs of antennae, and four sets of jaws. The first antennae are uniramous and typically chemosensory; the second antennae are typically tactile structures. The sex of the *Bathynomus* species is distinguished by the presence of paired penes on the sternum of 7th pereonite in males and with the presence of a marsupium and opening of oviduct (near the base of the legs on the fifth pereonite) in female. By examination the specimen caught was identified as a male with distinguishable male sexual characters.

B. giganteus are voracious carnivores, functioning both as predators and scavengers by crawling on the silty bottom looking for dead fishes and slow moving animals. The stomach of the specimen was dissected out and examined for

its content. The stomach was empty. It is reported that *B. giganteus* feeds on a variety of food organisms, fishes, sponges, shrimps, copepods, nematodes, radiolarians, and the most important food categories in all life phases was found to be fish and squid remains (Barradas-Ortiz *et al.* 2003). When caught in the net, they tear off meat from the captured fishes.

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REFERENCES

- BARRADAS-ORTIZ, C., P. BRIONES-FOURZAN & E. LOZANO-ALVAREZ (2003): Seasonal reproduction and feeding ecology of giant isopods *Bathynomus giganteus* from the continental slope of the Yucatan peninsula. *Deep Sea Research. Part I: Oceanographic Research Papers* 50(4): 495-513.
- BRUSCA, R.C., R. WETZER & S. FRANCE (1995): Cirolanidae (Crustacea: Isopoda: Flabellifera) of the Tropical Eastern Pacific. *Proc. San Diego Soc. Nat. Hist.* 30: 1-96.
- JACOB, A. & V.A. NARAYANKUTTY (2006): Report on the first occurrence of a deep sea isopod from west coast of India. *Mar. Fish. Infor. Serv. T&E Ser. No.187*: 13-14.
- RICHARDSON, H. (1905): A monograph on the isopods of North America. *Bull. U.S. Natl. Mus.* 54: I-LIII, 1-727 pp.
- SRIKRISHNADHAS, B. & M. VENKATASAMY (2003): *Bathynomus giganteus*: A rare occurrence in coastal waters of Thoothukkudi, India. *Curr. Sci.* 85(9): 1253-1254.