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CUMACEA OF THE ISRAEL SOUTH RED SEA EXPEDITION, 1926*

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INTRODUCTION

The cumacea collection from the Red Sea obtained by the Israel South Red Sea Expedition during 1962 consists of 91 specimens belonging to 8 species. All the specimens are from shallow depths obtained in the plankton or benthic collections. The families Bodotriidae and Nannastacidae are represented.

The paper deals with the Cumacea collected by the Israel South Red Sea Expedition during the year 1962 and received from the Hebrew University, Israel. The samples were collected from stations near Entedebir Island, Dehlakkebir Island, Harmil Island, Romia Island and Massawa channel. Representatives of only two families Bodotriidae & Nannastacidae are present in the collections.

The collection consists of 91 specimens belonging to 8 species :

Family BODOTRIIDAE

Sub family BODOTRIINAE

Bodotria sublevis Calman

Bodotria scorpioides (Montagu)

Bodotria parva Calman

Cyclaspis strigilis Hale

Cyclaspis calmani Hale

Family NANNASTACIDAE

Nannastacus lepturus Calman

Cumella hispida Calman

Cumella munroi Hale

Genus **Bodotria** Goodsir

Bodotria sublevis Calman

Bodotria sublevis, Calman (1907) *Trans. zool. soc. Lond.* **18**, **1**, p. 3, pl. 1, figs. 1-3.

Bodotria sublevis, stebbing (1913) *Das Tierreich*, **39**, p. 25.

Bodotria sublevis, Kurian (1951) *Bull, cent. Res. Inst. Univ. Travancore*, (C), **2**, **1**, pp. 80, 81.

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Locality : Entedebir Island, about 3 m from high tide level 11.3.1962, 3 ♀ ♀ 1.3-1.9 mm (1 ovigerous), Romia Island, Mangrove roots, 29.3.1962, 2 ♀ ♀ (immature) 1.3-1.5 mm.

Female : Carapace granular, without hairs and spines. Basis of third maxilliped longer than the other segments combined together and expanded distally with three of four plumose setae. Basis of first peraeopod as long as or little shorter than the other segments combined together. Pleon longer than cephalothorax ; telsonic somite half of the fifth pleon somite and less than half of the peduncle of uropod. Peduncle without spines or serration ; exopod and endopod subequal and three forths the peduncle ; first joint of endopod more than twice as long as second, only a single terminal spine on the first joint ; second joint also with a terminal spine and a short subterminal spine.

Distribution : Gulf of Siam, Trivandrum.

Bodotria scorpioides (Montagu)

Cancer scorpioides, Montagu, (1804) *Trans. Linn. Soc. London*, **7**, p. 70, fig. 5.

Bodotria scorpioides, Fage, (1951) *Faune de. France*, No. 54, *Paris*, (2), 1, pp. 31. 33, Figs. 24-26.

Bodotria scorpioides, Lomakina (1958) *Opred. do faune SSSR, no.* **66**, pp. 281-283, fig. 190.

Locality : Entedebir Island, grab collection, 5m, 20.3.1962, 3 ♂ ♂ 2 mm night plankton, 0.5m, 19.3.1962, 48 ♂ ♂ 1.8-2 mm.

Male : Pseudorostrum short, paired lateral carinae indistinct. Basis of first peraeoped longer than the other segments combined together, carpus equal to propodus. Fifth pleon somite much longer than telsonic somite and narrowed distally. Peduncle of uropod thrice as long as telsonic somite, with seven or eight short plumose setae and seven spines arranged in two rows ; exopod and endopod subequal, more than half the length of peduncle ; first joint of endopod more than twice as long as second, with seven spines on the inner margin ; second joint without any spines but with two unequal terminal spines ; exopod with six setae on the inner margin and two unequal terminal spines. From the previous records, the present specimen differs in the total length and nature of carapace. The specimens attain only a length of 2mm compared to 5-7 mm of the previous records. But all the other characters such as nature of eye, number of eye lenses, nature of peraeopods and uropods and the nature of the fifth pleon somite (narrowed in the distal half) exactly resemble *B. scorpioides* described by Montagu (1804) Fage (1951) and Lomakina (1958).

Superficially this has a close resemblance to *B. subtevis*, but there is marked difference in the size and nature of peraeopods and uropods. The presence of plumose setae and spines on the endopod of uropod and seven spines on the first joint of endopod shows its similarity *B. scorpioids* of previous records.

Distribution : British Isles, France, Norway.

Bodotria parva Calman

Bodotria parva, Calman, (1907) *Trans. zool. Soc. Lond.* **18, 1,** p. 5, pl. 1, figs. 16-18.

Bodotria parva, Stebbing, (1913) *Das Tierreich,* **39,** p. 28.

Locality : Horizontal plankton, Massawa channel, 7-4-1962, 10 ♀ ♀ (2 ovigerous ♀ ♀ 2-2. 1mm) & 5 immature ♂ ♂ 0.8-1mm.

Ovigerous female : Carapace one-fourth the total length, a faintly marked longitudinal ridge present on either side of the carapace ; antennal tooth not exactly rounded as in type description. Basis of third maxilliped longer than the other segments combined together, with two plumose setae on its outer terminal expansion ; basis of first peraeopod almost as long as the other segments combined together. Pleon subequal to cephalo-thorax, fifth pleon somite twice as long as telsonic somite. Peduncle of uropod slightly shorter than the last two pleon somites combined together, without spines or setae ; expod and endopod subequal, three-fourths the peduncle, endopod with one spine on its inner edge, about twp-thirds of its length and another close to the apical spine ; exopod with four or five setae on the inner margin. The adult female specimans in the present collections are longer (2-2.1mm) than the adult female recorded from bulk of Siam (1.5mm).

Distribution : Gulf of Siam.

Genus **Cyclaspis** Sars

Cyclaspis strigilis Hale

Cyclaspis strigilis, Hale (1944) *Rec. S. Aust. Mus.,* **3,** pp. 83-86, figs. **11. 14.**

Cyclaspis strigilis, Kurian, (1951) *Bull. cent. Res. Inst. Univ. Trauancore, (C),* **2, 1,** pp. 89, 90.

Locality : Entedebir Island, Coralline fine sand, 13.3.1962, 1 ovigerous ♀ 3.1mm, 1 immature ♂ 2.7mm.

Ovigerous female : Carapace one-third of the total length, with numerous obligue striae on the sides. Basis of third maxilliped and first peraeopod little shorter than the other segments combined together ; pleon segments cylindrical with articulating lateral processes.

Beduncle of uropod as long as the endopod, with seven inner marginal spines towards the posterior part ; endopod slightly shorter than exopod, with nine spines on the inner margin and exopod with two spines.

Immature male : Striation on the carapace not as clear as in the female. Peduncle of uropod with eleven inner marginal spines ; endopod with nine and exopod with four spines.

Distribution : Queensland, Trivandrum.

Cyclaspis calmani Hale

Cyclaspis calmani, Hale (1944) *Rec. S. Aust. Mus.*, 8, 1, pp. 72, 112.

Cyclaspis calmani, Kurian (1954) *Rec. Indian Mus.*, 52, parts 2-4, pp. 281, 282.

Locality : Entedebier Island, Coralline fine sand, 13.3.1962 6 ♀ ♀ (immature) 1-1.6mm.

Immature female : Carapace finely reticulated, pseudorostrai lobes barely meet in front of the ocular lobe. Basis of third maxilliped as long as the other segments combined together, basis and merus expanded terminally with plumose setae. First peraeopod long, basis shorter than other segments combined together, propodus little longer than carpus, second peraeopod very short. Fifth pair of peraeopods not developed. Peduncle of uropod little longer than exopod or endopod and without serration. Endopod with three inner marginal spines, without apical spine ; exopod little longer than endopod, with an inner marginal spine close to the apical spine.

Distribution : New Zealand, Andamans.

Genus **Nannastacus** Bate

Nannastacus lepturus Calman

Nannastacus lepturus, Calman, (1911) *Trans. zool. Soc. Lond.* 18, 4, pp. 341, 351, figs. 1-3.

Nannastacus lepturus, Stebbing (1913) *Das Tierreich*, 39, p. 171.

Locality : Israel, horizontal plankton, Massawa channel, 7.4.1962, 1 ♂ 2mm, Harmil Island 28.3.1962, 1 ♂ 1.6mm.

Male : Closely resembles the type description. Peduncle twice as long as telsonic somite, highly serrated on the inner margin. Endopod with seven marginal spines.

Distribution ; Suez Canal.

Genus **Cumella** Sars

Cumella hispida Calman

Cumella hispida, Calman (1911) *Trans. zool. Soc. Lond.* **18**, **4**, pp. 341, 347, figs. 15-18.
Cumella hispida, Stebbing (1913) *Das Tierreich*, **39**, pp. 181-182.
Cumella hispida, Hale (1945) *Rec. S. Aust. Mus.*, **8**, 2, p. 176, figs. 21.

Locality : Massawa channel, Horizontal plankton, 7.4.1962, 7 ♀ ♀ 1.8-2.6 mm, 1 ♂ 2 mm, Near Dehlakkebir Island, 6 mm, 26.3.1962, 2 ♀ ♀ (1 ovigerous) 2.2 & 2.3 mm Entedebir Island, outside landing bay, 6m, 26.3.1962, 2 ♀ ♀ (1 ovigerous) 2 & 2.3 mm, 7m, 2 ♀ ♀ (1 ovigerous) 1.9 & 2.4 mm.

Ovigerous female : Closely resembles the type description. Carapace triangular, hairs on the carapace lesser or absent when compared to the description of Calman and Hale. Carpus of fifth peraeopod very long and twice as long as merus and propodus. Peduncle of uropod as long as the telsonic somite, with four marginal spines, endopod with two marginal spines. One of the ovigerous females examined, contained 4 eggs.

Male : Closely resembles *C. hispida* from S. Australia. Peduncle of uropod bears five short spines on its inner serrated margin ; endopod with five spines on the inner margin ; exopod more than three-fourths as long as endopod.

Distribution : Gulf of Siam, S. Australia.

Cumella munroi Hale

Cummella munroi, Hale (1945) *Rec. S. Aust. Mus.*, **8**, **2**, pp, 171, 172, figs. 17, 18.

Locality : Entedebir Island, high tide level, 11.3.1962, immature ♀ 1.3 mm (damaged).

Immature female : Carapace damaged uropods & peraeopods resemble those *C. munroi* Hale. Peduncle without spines, exopod and endopod subequal, more than three-fourths the peduncle.

Distribution : Queensland, Moreton Bay, Green Island.

All specimens are deposited in the Zoological Survey of India, Calcutta.

SUMMARY

Very little is known about the cumacean fauna of Red Sea. The previous records are by Paulson (1875), Kossman (1880), Lomakina (1967) and Bacescu & Muradian (1975). Only eight species have been collected from Red Sea in the present investigation and they all occurred at shallow depths. All of them except *Bodotria scorpioides* have an Indo-West Pacific affinity. The specimens were obtained either in plankton or in benthic samples.

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