

***Sphaeroma walkeri* Stebbing, 1905 in the coastal waters of Karachi (Northern Arabian Sea)**

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Abstract: *Sphaeroma walkeri* Stebbing, 1905 is a new record from the northern Arabian sea. A brief description and some illustrations are given.

Key words: *Sphaeroma walkeri* Stebbing, 1905.

Introduction

Little attention has been paid to the isopods of the northern Arabian Sea, Javed (1983-1999) has published on some species of isopods from Karachi *Sphaeroma walkeri* Stebbing, 1905 has a worldwide distribution, (Jacobs, 1987) and according to Carlton and Iverson (1981), it could be a native of Northern-Indian Ocean. This is an intertidal species, mostly found in sheltered places, in crevices of rock and wood or empty shells and it is also found on the hulls of ships. Balakrishnan and Nair (1995:118) reported *S. walkeri* Stebbing, 1905 from Kerala (India), being confined to the mouth region of the backwaters having salinity range 32-34%. The specimens at hand are from the intertidal region of rocky shores of the Karachi coast, northern Arabian Sea. Balakrishnan and Nair (1995-118) observed that the population of this species in Kerala is low compared to the other woodborer sphaeromatide. The only species recorded from the mangrove woods of Karachi, northern Arabian Sea and having very high population is *Sphaeroma terebrans* Bate, 1866.

Sphaeroma walkeri Stebbing, 1905:31, Pl. 7; Monod, 1931: 36, figs. 5, 23A 43 A-B; Barnard, 1936:178; de Loyola e Silva, 1960: 41, fig. 6.7; Carlton & Iverson, 1981:31; Mak *et al.*, 1985:75. Jacobs 1987:22, fig. 6, A-F; Balakrishnan & Nair, 1995:118.

Material examined

One male, 133 mm, 27 Oct. 1989, Paradise Point.

One male, 16 mm, 10 Dec. 1989 Bulleji.

One male, 9 mm, 29 Sept. 1996, Bulleji.

Description: The specimens have been identified as *Sphaeroma walkeri* Stebbing, 1905, using the description and illustrations of Jacob, (1987:22). The species has never been recorded from the northern Arabian Sea. A brief description of the species is given here.

The body is studded with transverse rows of large tubercles, especially on the posterior segments. The telson (Fig. A) is studded with four longitudinal rows of large tubercles and minute tubercles are scattered all over the telson. The endopod of the uropod has two or three large tubercles and scattered minute tubercles; the exopod is without any large tubercles. The outer margin of the exopod is deeply serrated with seven to eight large denticles (the illustrated male is with eight on the right and seven on the left side). The number of denticles

varies between different specimens and even on the two sides of same individual (Fig. B).

The posterior semicircular margin of the telson is also denticulate, more prominent in large specimens; half of the endopod of the uropod and basis are fused with the pleotelson.

The front is broad and convoluted (Fig. D). The antennules are basally convoluted (Fig. E) The antenna (Fig. F) is much larger than the antennule. The flagellum is with thick tufts of setae specially on the basal segments.

All the pereopods have long dactyli and little produced propodus giving it a sub chelate look (Fig. 1). The pereopods are also with long plumose setae. The first pereopod is the shortest; pereopods increase posteriorly in length to the third; the fourth is smaller and robust and the most posterior are longer than all the others.

The appendix masculina (Fig. 1) is rod-like with a blunt apex; the basal part is with long setae while the upper part is without any.

Type locality

Sri - Lanka.

Distribution: World-wide. It is possibly a native of North Indian Ocean, out side it is found in all kinds of harbours. (Carlton & Iverson, 1981), Hong Kong, Lourenco Marques (Mozambique) Tangiers & Nouadhibou (Morocco), Port Said (Egypt) Alicante (Spain), Kerala (India) and now for the first time from Pakistan.

Ecology: The species from Pakistan was collected from the lower intertidal region where the red algae was abundant. It is collected from intertidal rocky shores of Bulleji, Paradise Point where salinity range in winter months was found to be 35-37%.

The species is a wood borer (Balakrishnan and Nair, 1995) and should be present in the mangroves. Until now the only species of wood borer isopods recorded from Karachi mangroves is *S. terebrans* Bate, 1866.

Balakrishnan and Nair (1995: 118) mentioned that *S. walkeri* Stebbing, 1905 in the Kerala estuarine system was confined to the mouth region of the brackish waters having a salinity range of 32-34%. The population of the species in the Karachi region is low as compared to that of *S. terebrans* Bate, 1866.

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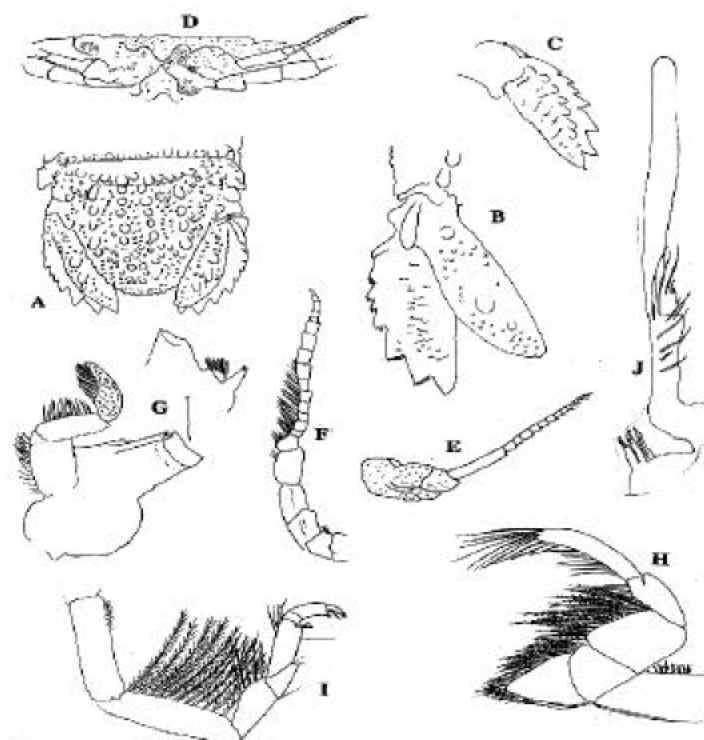


Fig. 1: *Sphaeroma walkeri* Stebbing, 1905. Male 13.0 mm. A, Pleotelson, dorsal view; B, uropod, lower view, C, exopod of uropod, dorsal view; D, frontal view of the specimen, E, antennule; F, Antenna; G, Mandible; H, Outer maxilliped; I, Pereopod; J, Appendix masculina.

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