NOTES

ON A COLLECTION OF TWO SPECIES OF PELAGIC PENAEIDS (CRUSTACEA : DECAPODA) FROM THE OCEANIC WATERS OF THE SOUTHWEST ARABIAN SEA

Abstract

Two species of oceanic penaeids viz. Funchalia villosa and F. balboae are recorded for the first time from Indian waters and reported in this note.

THE REPORT is based on the collection made during the research cruise of FORV Sagar Sampada in August 1985 from the oceanic waters of the (Southwest Arabian Sea) where the depth is 2000-3000 m. Two species of genus Funchalia (Family: Penaeidae) collected from depths of 70-75 m are included here. This genus Funchalia is recorded for the first time from Indian waters.

Genus : Funchalia Johnson, 1867

Funchalia Johnson, 1867; Bouvier, 1908; Lenz and Strunck, 1914; Calman, 1925; Burkenroad, 1934.

Aristeus part Bate, 1888.

Penaeus part Faxon, 1895; Lenz and Strunck, 1914 part; Schmitt, 1935 part.

Hemipenaeopsis Bouvier, 1905.

Grimaldiella Bouvier, 1905.

The members of the genus were included in a number of genera by previous workers. Burkenroad (1936) recognised two subgenera. He placed the species having ventral teeth on the rostrum is the subgenus *Pelagopenarus* and those species without ventral teeth on the rostrum in the subgenus *Funchalia*. However Dall (1957) and Burukoviskii (1974) did not recognise the subgenera and dealt all the species under *Funchalia*. All the five species known are pelagic in habit and are poorly known.

Funchalia villosa (Bouvier, 1905)

Hemipenaeopsis villosus part Bouvier, 1905.

Grimaldiella richardi part Bouvier, 1905.

Funchalia woodwardi part Bouvier, 1907 and 1908; Lenz and Strunck, 1914.

Funchalia vanhoffeni Lenz and Strunck, 1914.

Material: Eleven females with a length range of 64-72 mm total length (15-16 mm carapace length) and seven males with a length range of 57-68 mm total length (14-16 mm carapapace length) from Station No. 175 of FORV Sagar Sampada cruise SS/6/85 on 6-8-1985 at 8°N Latitude and 73°32.4' E where the depth was 2390-2761 m. These prawns were caught at a depth of 75 m from surface by pelagic trawling.

Distribution: F. villosa has been recorded from the Mediterranean (Stephensen, 1923), the temperate North Atlantic (Johnson, 1878; Bouvier, 1906 and 1922; Lenz and Strunck, 1914; Sund, 1920; Stephensen, 1923), the Caribbean Sea (Burkenroad, 1936) and the temperate South Atlantic (Lenz and Strunck, 1914; Calman, 1925) as well as from the Indian Ocean (Balss, 1925; Dall, 1957). The present record extends the range of distribution of the species to the Arabian Sea.

Remarks: All the specimens observed in the present collection are mature. All the specimens have one epigastric tooth and five rostral teeth on the dorsal side of the rostrum. In males the spermatophores are very conspicuous. In live specimens the colour was milky white with tips of pleopods and uropods bordered red. This colour pattern is retained even after preservation. Burkenroad (1936) made a clear-cut distinction between *F. villosa* and *F. woodwardi*. The present material closely agrees with the description of *F. villosa*. Rostral teeth varied from 1+5 to 1+6 in Burkenroad's specimens whereas in the present material the rostral teeth were 1+5 in all the specimens.

REFERENCES

Funchalia balboae (Faxon, 1983)

Penaeus balboae Faxon, 1893 and 1895; Schmitt, 1935.

Penaeus meridionalis Lenz and Strunck, 1914. Funchalia (Pelagopenaeus) balboae Burkenroad, 1934 and 1936.

Funchalia (Pelagopenaeus) meridionalis Burkenroad, 1934. Funchalia baiboae Dall, 1957; Burukoviskii, 1974.

Material: One female and 5 males from Station No. 179 (9°03'N and 74°03'E) where the depth was 2746 m. They were collected from the water column 75 m from the surface. Five females and 9 males from Station No. 185 (11° 01'N and 71°05'E) where the depth was 2510 m. These specimens were collected at 70-75 m depth from surface. The details of nine specimens studied are given below:

Total length in mm	Cara- pace length in mm	Rostral formula	Sex and maturity
94	24	$\frac{1+13}{3}$	Female mature
97	2 5	$\frac{1 + 14}{4}$	Female mature
97	25	$\frac{1 + 12}{4}$	Female mature
101	26	$\frac{1 + 12}{3}$	Female mature
127	28	$\frac{1 + 13}{4}$	Female mature
94	25	$\frac{1+8}{0}$	Male mature, rostrum repair ín progress

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98	24	$\frac{1+13}{3}$	Male mature
104	25	$\frac{1 + 11}{3}$	Male mature
110	26	$\frac{1+11}{4}$	Male mature

Distribution: The species was recorded off Cocos Islands, Eastern Pacific Ocean (Faxon, 1893; 1895), the Eastern Pacific (Schmitt, 1935), temperate South Pacific (Lenz and Strunck, 1914) and the Caribbean (Burkenroad, 1936). All these records were from the oceanic areas around the Isthamus of Panama. For the first time now the species is recorded from the Indo-Pacific area and the Arabian Sea.

Remarks: All the four males and the five females studied were mature with well developed secondary sexual characters. The dorsal rostral teeth varied from 12 to 13 in males and 13 to 15 in females whereas the number of ventral teeth varied from 3 to 4 in both the sexes irrespective of the total length. A male measuring 94 mm in total length and 25 mm in carapace length has 9 dorsal and no ventral teeth on the rostrum. It is clearly evident that the rostrum was damaged and the repairing process was on when it was caught. This may be the probable reason for not having any ventral teeth. Apart from these variations observed in the rostrum the specimens closely resemble the description given by Burkenroad (1936). The colour in fresh specimens is yellowish white with red chromatophores. This colour is retained even in the formalin preserved specimens for long.

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