

**NOTES ON SOME AMPHIPODS FROM THE SOUTH EAST
COAST OF INDIA**

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INTRODUCTION

THE present paper deals with eleven species of amphipods collected from the Gulf of Mannar and Palk Bay and not included in my earlier papers (Sivaprakasam, 1968 ; another in press). Many of them were recorded from Ceylon by Walker (1904) and Mayer (1904), but are recorded for the first time from India. The record of *Leucothoides pottsi* Shoemaker extends its distribution considerably. The hitherto undescribed male of *Eusiroides diplonyx* Walker is described and figured. *Dexaminooides* sp. appears to be new, but not described in detail because of paucity of material.

A recent paper on the Amphipoda of the Gulf of Mannar by Nayar (1966) calls for certain comments in the light of my work on this group from the same area. The paper is said to deal with 78 species but only 39 species appear to have been actually collected and studied. While the size and distribution are not given for all the species, the paper gives only limited distribution for some cosmopolitan species, viz., *Melita fresneli* (Audouin), *Photis longicaudata* (Bate and Westwood), *Cymadusa filosa* Savigny and *Podocerus brasiliensis* (Dana). The family Anamixidae is said to comprise a single genus with five species (p. 144), while there are actually two genera with four species in this family (*vide* Barnard, J. L., 1958). Walker (1904) is said to have created certain species 'based on a single specimen' (pp. 145, 155), while he had in fact plenty of material of these species. Four species appear to be misidentifications as evidenced by the figures given by the author : *Maera pacifica* (p. 150, fig. 9 c-d) is referable to *M. quadrimana* (Dana) ; *Parelas-mopus suluensis* (p. 153, fig. 11 a-c) is referable to *Elasmopus latibrachium* Walker ; *Lembos podocerooides* (p. 155, fig. 9 e) does not agree with Walker's (1904) description and figures and its correct identity is not known ; and finally, *Ampithoe ramondi* (p. 160, fig. 14) is referable to *Cymadusa filosa* Savigny.

SYSTEMATIC ACCOUNT

Suborder Gammaridea

Family AMPELISCIDAE

Genus *Ampelisca* Kroyer

Ampelisca scabripes Walker

(Fig. 1 A-D)

Ampelisca scabripes Walker, 1904, p. 250, pl. 2, fig. 12.

Material examined : 13 specimens collected from the washings of seaweeds at Rameswaram. Length upto 4.5 mm.

Remarks : The present material closely agrees with Walker's (1904) description and figures but differ in the following features. Antenna 1 extends beyond the peduncle of antenna 2 usually by 2 joints and in some large specimens by 4 joints. Walker's figure of peraeopod 4 should be corrected as peraeopod 3. Posterolateral corner of epimeral plate 3 is quite pointed and upturned and the inner margin of inner ramus of uropod 3 is smooth, unlike Walker's material.

Distribution : Ceylon. Recorded here for the first time from India.

Family LEUCOTHOIDAE

Genus *Leucothoides* Shoemaker

Leucothoides pottsi Shoemaker (Fig. 1 E-G)

Leucothoides pottsi Shoemaker, 1933, p. 249, fig. 3.

Schellenberg, 1938, p. 26, fig. 13.

Ruffo, 1959, p. 2, fig. 1 (1-2).

Material examined : 5 males and 3 females from the washings of sponges and seaweeds at Appa island, near Kilakkarai. 1 male from seaweeds at Rameswaram. Length upto 3.3 mm.

Remarks : These specimens closely agree with the earlier descriptions of this species, with little deviation. The female differs from the male in the relative proportions of joints 5-6 of gnathopod 2.

It is probable that this species is cosmopolitan in the tropical and temperate seas, as evidenced by its occurrence in widely separated areas.

Distribution : Florida, Gilbert and Marshall Is. (South Pacific Ocean) and Red Sea. Recorded here for the first time from India.

Family STENOTHOIDAE

Genus *Stenothoe* Dana

Stenothoe valida Dana (Fig. 2 A-B)

Stenothoe validus Dana, 1853-55, p. 924, pl. 63, fig. 1.

Stenothoe valida Stebbing, 1906, p. 194.

Chilton, 1923, p. 99.

Gravely, 1927, p. 123.

Barnard, J. L., 1953, p. 83, pl. 15 (literature).

Stenothoe assimilis Chevreux, 1908, p. 4, figs. 4-6.

Barnard, K. H., 1925, p. 345.

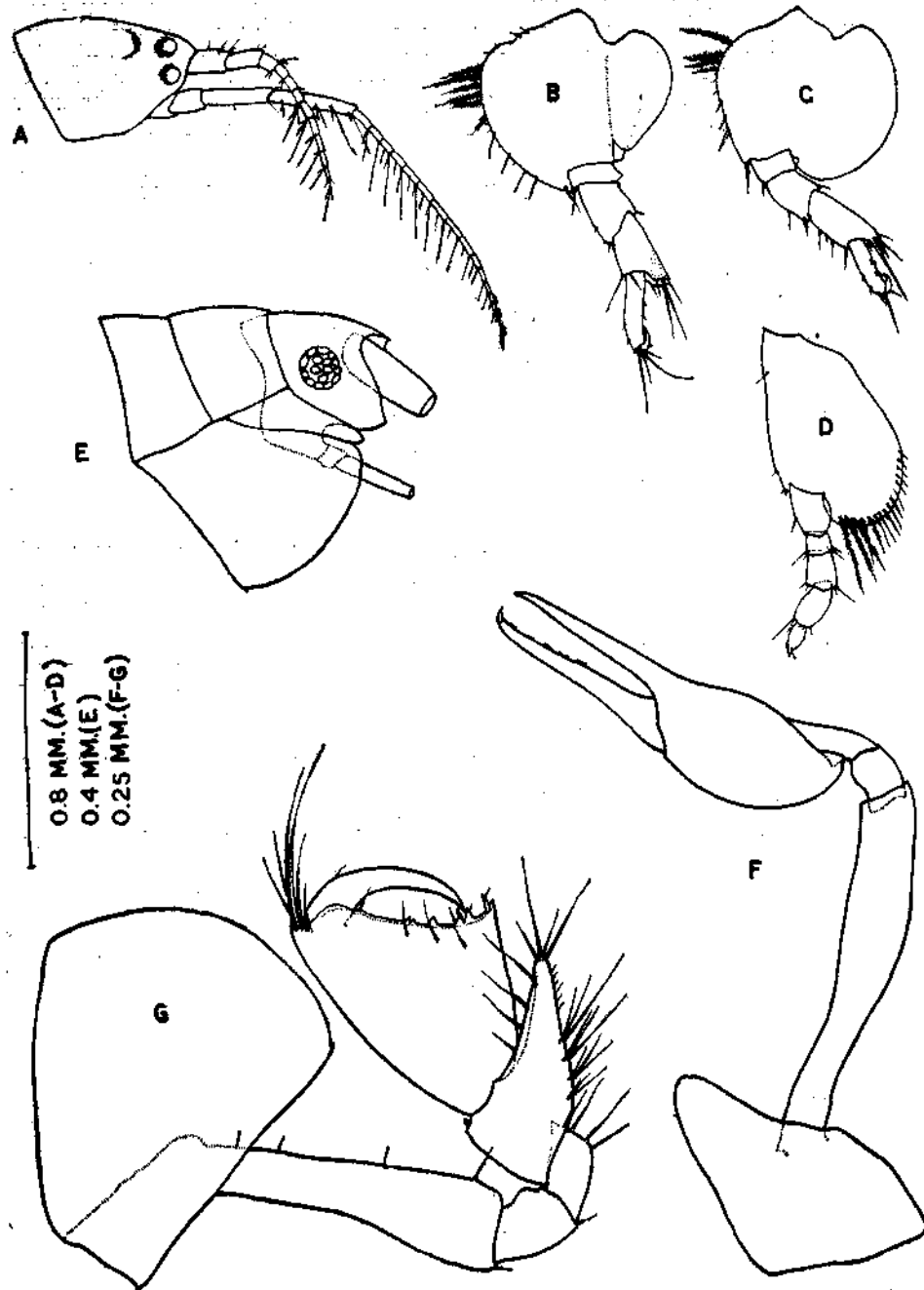


FIG. 1. A-D: *Ampelisca scabripes* Walker. Male: A. head; B, C, D. pereopods 3, 4, 5. E-G: *Leucothoides poitzi* Shoemaker. Female: E. head; F. gnathopod 1; G. gnathopod 2.

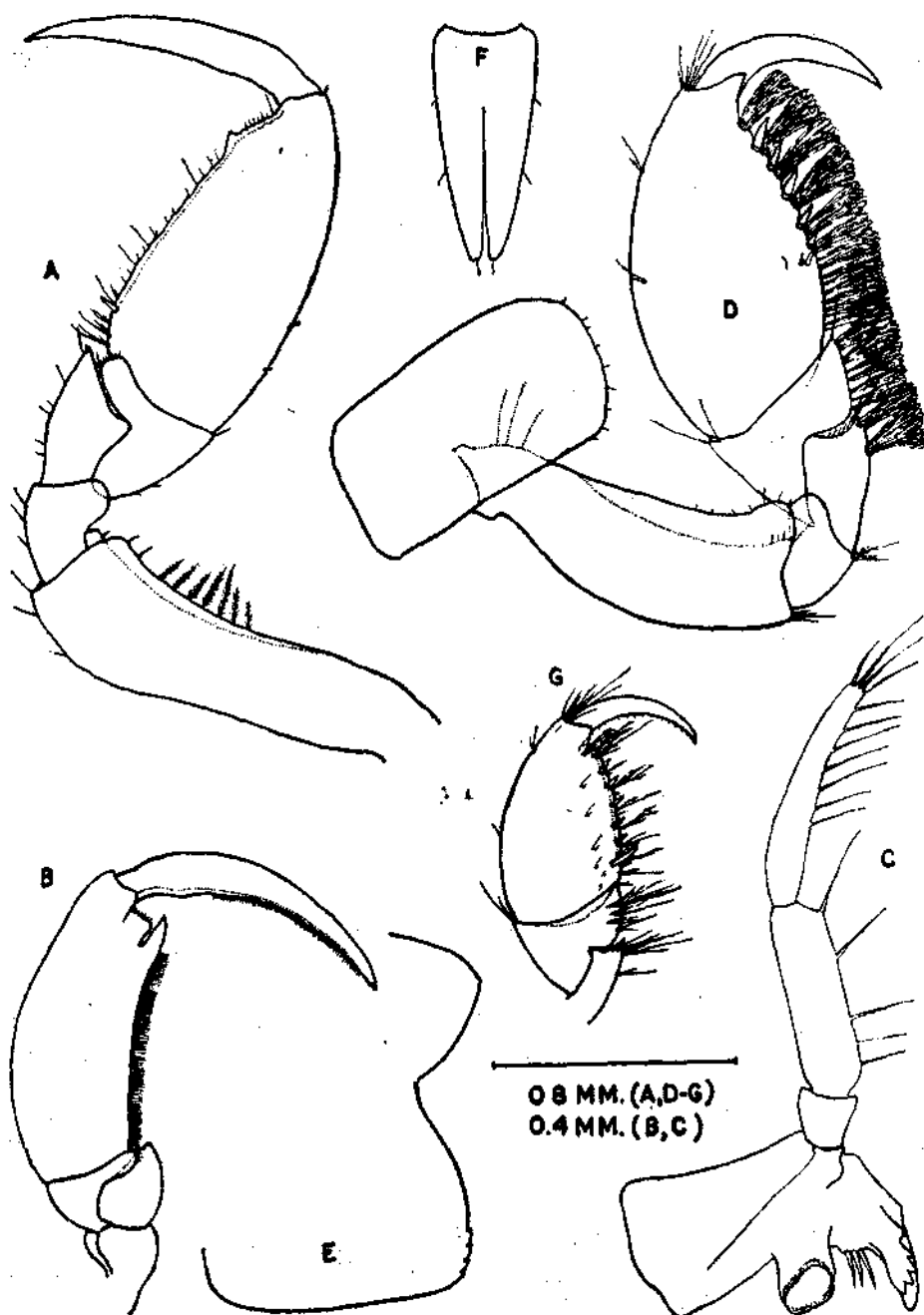


FIG. 2. A-B: *Stenothoe valida* Dana. A. female gnathopod 2; B. male gnathopod 2. C-G: *Eustroides diplonyx* Walker. Male: C. mandible; D. gnathopod 2; E. epimeral plate 3; F. telson. Female: G. gnathopod 2.

Stenothoe ornata Barnard, K. H., 1930, p. 341, fig. 16.

Material examined: 4 males and 11 females from seaweeds at Pamban. Length upto 3.5 mm.

Remarks: Gravely (1927) mentions the occurrence of this species at Pamban, but gives no further details. The present material closely agrees with the figures given by Barnard, J. L. (1953) who also discussed the synonymy of this species and gave characters distinguishing this species from *S. catta* Stebbing (= *S. gallensis* Walker).

Distribution: Cosmopolitan in the tropical and temperate seas.

Family EUSIRIDAE

Genus *Eusiroides* Stebbing

Eusiroides diplonyx Walker (Fig. 2 C-G)

Eusiroides diplonyx Walker, 1909, p. 333, pl. 43, fig. 4.

Pirlot, 1936, p. 302, figs. 126-128.

Schellenberg, 1938, p. 35.

Ruffo, 1940, p. 157.

Eusiroides caesaris var. Walker, 1904, p. 264, pl. 4, fig. 22.

Material examined: 1 female from sea weeds at Kilakkarai. 6 males and 6 females from sea weeds at Pamban. Length upto 9.0 mm.

Remarks: The females agree closely with the excellent figures given by Pirlot (1936). The males, which have not been described before, differ from the females mainly in the profuse, brushlike setae on distal joints of gnathopods. Male gnathopod 1 with side plate widening broadly and rounded below. 2nd joint stout, front margin 2-ribbed and distally lobed. 3rd joint also lobed in front. 4th joint with bunches of setae on distal part of hind margin. 5th joint 1/3 as long as 6th, with hind margin produced distally and with brushlike setae, curved at the tip. 6th joint large and elegantly oval. Palm twice as long as hind margin, with 5 stout spines, alternating with bunches of brushlike setae. 2 small spines on inner aspect demarcate the palm from hind margin which has also similar setae. Dactylus stout, as long as palm, smoothly curved and acute-tipped. Male gnathopod 2 slightly larger but otherwise similar to gnathopod 1. Side plate oblong and rounded below.

Walker's record of *E. caesaris* var. is definitely synonymous with this species, though Pirlot (1936) considered it so with some doubt. The distal spine on 6th joint of pereopods 1-2 is not markedly long and curved in the present material as figured by Walker (1909).

Distribution: Seychelles, Red Sea, Ceylon, Solor and Adonara, Gilbert and Hawaii Is. Recorded here for the first time from India.

Family DEXAMINIDAE

Genus *Dexaminoides* Spandl*Dexaminoides* sp. (Fig. 3 A-G)

Material examined : 1 female from seaweeds at Pamban. Length 3.2 mm.

Remarks : This specimen is definitely a new species but the single, imperfect specimen is not sufficient for detailed description. It agrees with the redescription of the genus by Schellenberg (1928) and Sheard's (1937a) key to the genera. It differs from *D. orientalis* Spandl, the only species under this genus, as follows : Body smooth. Side plates not setose below except for a few setules. 3rd pleosome with a median and 2 lateral carinae posteriorly. 1st urosome produced into a carina posteriorly and with a long spine on either side. 3rd epimeral plate with postero-lateral corner pointed and hind margin slightly convex. Head twice as long as 1st mesosome and with a small rostrum. Eyes large, dark and reniform. Antenna 1 with peduncle half as long as flagellum which has 16 joints. Antenna 2 with flagellum cut in the middle. Gnathopod 1 similar but slightly smaller than gnathopod 2. Side plate widening below, with postero-inferior corner not acute. Gnathopod 2 with side plate oblong and its corners rounded. 2nd joint as long as joints 4-6 combined. 6th joint as long as 5th but slightly wider. Palm slightly oblique, pectinate and defined by an angle with 2 unequal spines. Peraeopods 1-2 normal and 3-5 as figured. Uropods partly mutilated. One half of telson lost and the other with 3 spines on outer margin and one in the apical notch.

Family GAMMARIDAE

Genus *Eriopisella* Chevreux*Eriopisella sechellensis* (Chevreux) (Fig. 3 H-K)

Eriopisella sechellensis Chevreux, 1901, p. 403, figs. 19-23.

Eriopisella sechellensis Barnard, K. H., 1935, p. 284, fig. 4.

Ruffo, 1959, p. 6, fig. III (1-2).

Niphargus chilkensis Chilton, 1925, p. 534, fig. 1 (*non* Chilton, 1921).

Material examined : 1 female from seaweeds at Appa island, near Kilakkarai. Length 3-5 mm.

Remarks : This specimen agrees more or less with the earlier descriptions of this species. 6th joint of gnathopods are not so narrow as figured by Ruffo (1959). 2nd joint of peraeopod 5 is oblong-oval and not so wide as figured by Barnard (1935).

This species was recorded from the Kerala coast before and now for the first time from the east coast.

Distribution : Seychelles, Tale Sap, India and Red Sea.

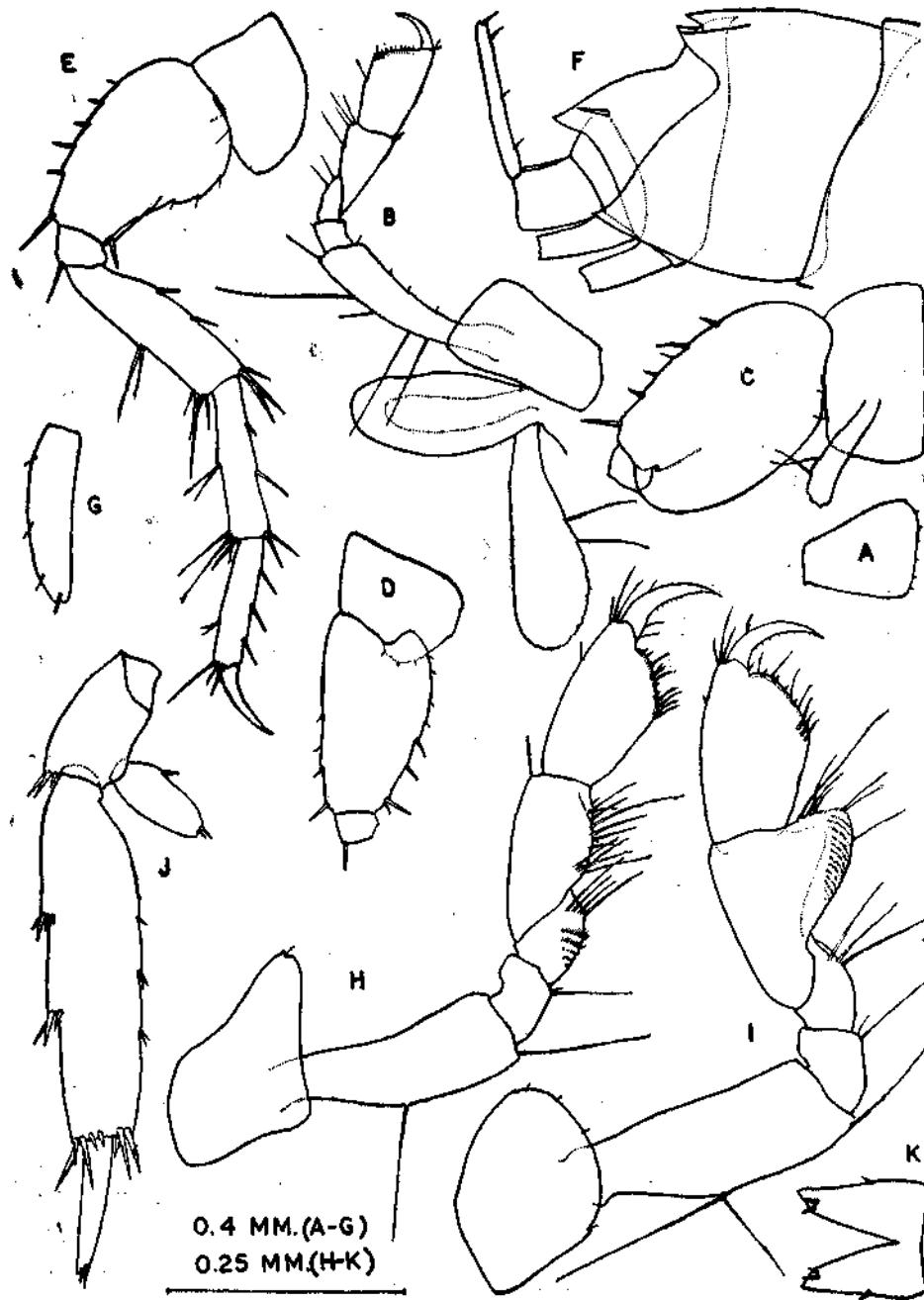


FIG. 3. A-G: *Dexaminoidea* sp. Female: A. side plate 1; B. gnathopod 2; C, D, E. pereopods 3, 4, 5; F. urus; G. half of telson. H-K: *Eriopsisella sechellenis* (Chevreux). Female: H. gnathopod 1; I. gnathopod 2; J. uropod 3; K. telson.

Genus *Pareiasmopus* Stebbing*Pareiasmopus suluensis* (Dana) (Fig. 4 A-B)

Gammarus suluensis Dana, 1853-55, p. 947, pl. 65, fig. 3.

Pareiasmopus suluensis Stebbing, 1888, p. 1029, pl. 100.

Stebbing, 1906, p. 417.

Walker, 1904, p. 278, pl. 6, fig. 38.

Chilton, 1922, p. 7, fig. 3.

Stephensen, 1931, p. 9.

Barnard, K. H., 1935, p. 286, fig. 6.

Pirlot, 1936, p. 311.

Schellenberg, 1938, p. 62.

Pillai, 1957, p. 52, fig. 11.

Ruffo, 1959, p. 8.

Pareiasmopus setiger Chevreux, 1901, p. 412, figs. 32-39.

Nec Pareiasmopus suluensis Nayar, 1966, p. 153, fig. 11.

Material examined : 1 male and 6 females from sea weeds at Appa island, near Kilakkarai. 4 males and 4 females from Vaalai island, near Kilakkarai. Length 3.0 to 9.5 mm.

Remarks : The present material is strikingly similar to those of Walker (1904) and Chilton (1922). I have figured the male gnathopod 2 which undergoes considerable changes with age.

Nayar's (1966) record of this species is not correct and appears to belong to *Elasmopus latibrachium* Walker (1905) which is characterised by the markedly wide 2nd joint and oval, almost naked 6th joint of male gnathopod 2.

Distribution : Sulu Sea, Marshall and Solomon Is., Indian seas to Australia, Red Sea and East Africa.

Pareiasmopus albidus (Dana) (Fig. 4 C)

Gammarus albidus Dana, 1853-55, p. 948, pl. 65, fig. 4.

Pareiasmopus albidus Schellenberg, 1938, p. 61, fig. 32.

Material examined : 1 male from sea weeds at Appa island, near Kilakkarai. Length 4.2 mm.

Remarks : This single male appears to be a young specimen of this species. It agrees with Schellenberg's (1938) description and figures, but the 6th joint of gnathopod 2 is more linear, presumably due to young condition.

Distribution : Samoa and Gilbert Is. (South Pacific Ocean). This species is recorded here for the first time from India.

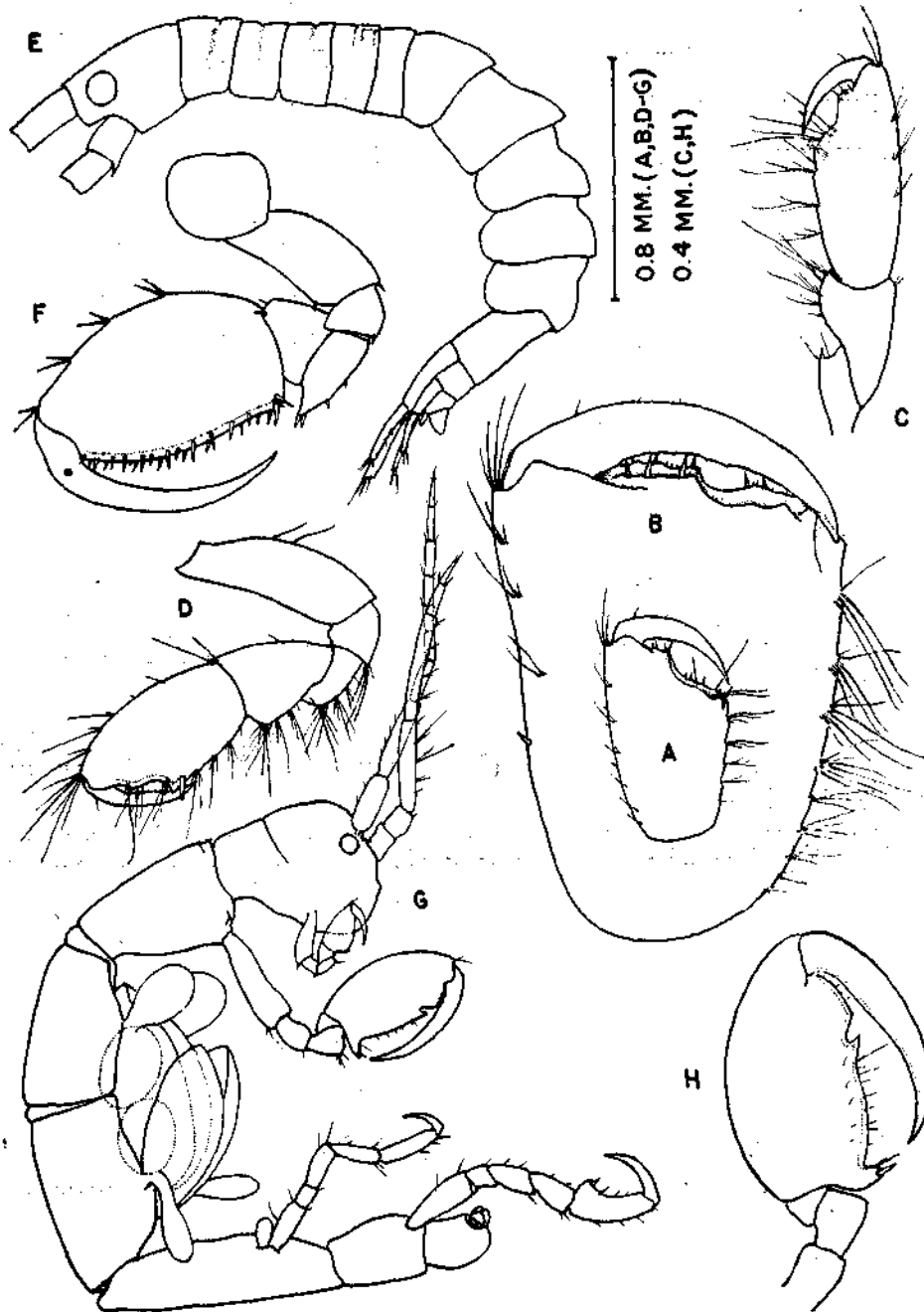


FIG. 4. A-B: *Parelasmopus suluensis* (Dana), gnathopod 2 of young and adult males. C. *Parelasmopus albidus* (Dana), gnathopod 2 of young male. D. *Lembos podoceroideus* Walker, female gnathopod 2. E-F: *Podocerus laevis* (Haswell), body and gnathopod 2 of male. G-H: *Monolirropus falcimanus* Mayer, body and gnathopod 2 of female.

Family AORIDAE

Genus *Lembos* Bate***Lembos podocerooides* Walker (Fig. 4 D)**

Lembos podocerooides Walker, 1904, p. 279, pl. 6, fig. 39.

Walker, 1905, p. 929.

Walker, 1909, p. 338.

Barnard, K. H., 1937, p. 163.

Ruffo, 1959, p. 18.

Nec *Lembos podocerooides* Nayar, 1966, p. 155, fig. 9e.

Material examined: 6 females from seaweeds at Kilakkarai. 1 female from Rameswaram. Length upto 4.0 mm.

Remarks: These females agree well with Walker's (1904) description and figures. They are also similar to the female of *L. kergueleni* figured by Walker (1909). No males were found in my collections. Nayar's (1966) record does not belong to this species, as his figure of male gnathopod 2 does not agree with either the young or the adult male figured by Walker (1904).

Distribution: Ceylon, Maldives, Red Sea, Gulf of Aden, South Arabian coast and Gambier and Tuamotu Archipelagoes. This is the first record of this species from the Indian coast.

Family PODOCERIDAE

Genus *Podocerus* Leach***Podocerus laevis* (Haswell) (Fig. 4 E-F)**

Dextocrella laevis Haswell, 1885, p. 111, pl. 18.

Platophium laeve Walker, 1904, p. 295, pl. 7, fig. 51.

Podocerus laevis Stebbing, 1910, p. 651.

Sheard, 1937(b), p. 28.

Material examined: 1 male from seaweeds at Nallathanni island, near Kilakkarai. 1 male from hydroids at Pamban. Length 3.0-3.5 mm.

Remarks: The present material closely agrees with the description and figures given by Walker (1904). The antennae and some peraeopods were lost in these specimens.

Distribution: Australia and Ceylon. This is the first record of this species from India.

Suborder Caprellidea

Family CAPRELLIDAE

Genus *Monoliropus* Mayer***Monoliropus falcimanus* Mayer (Fig. 4 G-H)**

Monoliropus falcimanus Mayer, 1904, p. 225, figs. 1-9.

Material examined: 1 female from seaweeds at Nallathanni island, near Kilakkarai. Length 3.5 mm.

Remarks: This specimen agrees well with Mayer's (1904) description and figures of this species which has not been reported later.

Distribution: Ceylon. Recorded here for the first time from India.

SUMMARY

The paper contains notes on eleven species of amphipods, of which eight are newly recorded from India.

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