Bolm Inst. oceanogr., S Paulo, 24:45-67, 1975

TWO NEW SPECIES OF SYNIDOTEA (CRUSTACEA, ISOPODA, VALVIFERA) FROM BRAZIL

Received August 13, 1974

ANA MARIA S. PIRES\* & PLÍNIO SOARES MOREIRA Instituto Oceanográfico da Universidade de São Paulo

## SYNOPSIS

Two new species of marine isopods referred to the genus Synidotea Harger, 1878, are described from Brazil. The species are Synidotea littoralis sp. n. and Synidotea brunnea sp. n. Both species were collected in the intertidal zone, from amongst seaweeds.

#### INTRODUCTION

The genus Synidotea Harger, 1878, is composed of a large number of species widely but unevenly distributed. Distributional picture may be somewhat distorted as a consequence of the unequal collecting and reporting of the species from the various geographic areas (Menzies & Miller, 1972). The available information on the genus along the Western South Atlantic is disappointing. Synidotea marplatensis Giambiagi, 1922, seems to be at present the only species known through many records from Brazil (Baía da Ilha Grande, Rio de Janeiro) to the continental shelf of Argentina (Giambiagi, 1922; Mañe-Garzón, 1946; Moreira, 1966, 1972, 1973; Menzies & Miller, 1972).

This paper, describing two new species of *Synidotea* collected from intertidal seaweeds, aims to bring further data about the occurrence of the genus along the Brazilian coast. The described new species are *Synidotea littoralis* sp. n. and *Synidotea brunnea* sp. n.

 <sup>\*</sup> Supported by a fellowship given by the "Fundação de Amparo à Pesquisa do Estado de São Paulo".
 PUBL. Nº 362 DO INST. OCEAN. DA USP.

Subordem VALVIFERA Family IDOTEIDAE Genus SYNIDOTEA Harger, 1878

Synidotea littoralis sp. n. (Figs 1-20)

HOLOTYPE - Adult male, 8.0 mm long. Allotype ovigerous female, 6.5 mm in length. Prof. Dr. Paulo Sawaya col.

TYPE LOCALITY - Off Maceió, State of Alagoas, about Lat. 9°40'S. Intertidal.

ETYMOLOGY - The name is derived from the Latin word *littoralis*, and refers to the species region of collection.

MATERIAL EXAMINED - Besides the types, further 6 specimens from the type locality. Feb 1972. Prof. Dr. Paulo Sawaya col.

DESCRIPTION - Body - Holotype adult male (Fig. 1) - Elongate, with lateral margins deprived of setae. Colour dark-brownish (in alcohol).

Head - Broader than long, frontal margin slightly concave; a pair of small, anteromedial, narrowly rounded tubercles projecting anteriorly, placed behind frontal margin; a pair of broad, large convexity between the eyes; both frontal and occipital grooves well marked. Eyes large, composite, darkbrownish, prominent, forming part of the lateral margins of head.

Percon - Dorsum of each perconite smooth, convex, slightly concave laterally; perconites not regularly contiguous at lateral margins; sides of perconites I-IV expanded in rounded, angular projections (Fig. 1), sides of perconites V-VII smooth, with the anterolateral angles broadly rounded, laterodistal ones narrowly rounded and directed distally and outwardly.

*Pleon* - Pleotelson elongate, smooth, well convex anteriorly, grossly rectangular, about 1.6 times longer than wider; anterolateral sides slightly concave, posterior third converging almost straight medially, distal margin broad, with a pronouncing median excavation.

Antenna 1 (Fig. 3) - Peduncle composed of 3 articles, all with the surface irregularly covered by short setae, and by few broom setae placed chiefly along distal margin; lst article enlarged, much broader than articles 2 and 3; 2nd article the shortest of peduncle; 3rd elongate, distinctly narrower proximally, and about 1.4 times shorter than flagellum. Flagellum uniarticulate, elongate, narrowing slightly distally; inner side bearing along transverse rows of aesthetes, apex with both aesthetes and a tuft of slender setae (Fig. 4).

Antenna 2 (Fig. 5) - Peduncle composed of 5 articles, all covered by minute setae, and by slender and broom setae placed along distal margin, and along both inner and outer sides of articles; 4th peduncular article about 1.2 times shorter than 5th, which is a little narrower than 4th article. Flagellum composed of 17 short articles, progressively narrowing posteriorly; last article shorter than penultimate, ending in two sub-terminal rows of slender setae, and in an apical tuft of setae (Fig. 6)

Right mandible (Fig. 7) - Incisor with 3 strong, unequal teeth. Lacinia mobilis stout, apically with 3 minutely toothed teeth, laterally with a longitudinal row of setae. Setal row composed of a tuft of 3 incised, elongate setae. Molar process strong, well developed, subcylindrical, ending in an obliquely truncate griding apex bearing laterally a setal brush and many small teeth along the distal margin.

Maxilla 1 (Fig. 8) - Outer lobe with 10 unequal, stout, curved apical spines, many strongly dentate; inner and outer margins bordered distally by slender setae. Inner lobe with 2 elongate, apical, plumose setae.

Maxilla 2 (Fig. 9) - All three lobes reaching apically about same level. Two outer lobes each with 8 and 7 elongate, curved, pectinate setae. Inner lobe with about 22 setae, of which 14 shorter and minutely pectinate, and 8 stiffly setose (2 of these setae being very distinctive because much longer than remainder setae).

Maxilliped (Fig. 10) - Endite setose, with 1 recurved coupling hook, and 3 apical, moderately elongate, stiffly setose setae. Palp with 3 articles, of which the last is expanded and bordered by fine setae and moderately elongate setae. Epipod large, laminar, fringed by delicate setae, distal margin evenly rounded.

Percopod I (Fig. 11) - Stout, subchelate, densely setose chiefly along both ventral and distal margins of articles. Propodus strong, longer than merus and carpus together, broader proximally, inner lateral surface covered by short stout setae. Dactylus ending in 2 unequal, stout claws, and into 2 stiff, moderately elongate setae. The overall setal pattern of the percopod I is shown in Fig. 11. Percopod VII (Fig. 12) - Densely setose, bearing both moderately slender, minutely combed setae and stiffly plumose setae (Fig. 13) mostly placed along ventral and distal margins of articles. Some few broom setae on dorsal margin of basis, ischium and merus, and strongly pectinate setae (Fig. 14) on ventrodistal angle of carpus and along ventral margin of propodus. Dactylus curved, ending in 2 stout, unequal claws (Fig. 15) and few slender setae placed at base of claws.

*Pleopod 1* - Protopod grossly rectangular, inner margin bearing both short setae and many apically recurved coupling hooks. Exo- and endopod entire, laminar, elongate, bordered by plumose setae.

*Pleopod 2* (Fig. 16) - Both protopod and exopod similar to those of pleopods 1 and 3. Endopod a little longer than exopod, with margins devoid of setae, except distally; appendix masculinum elongate, curved, longer than both exo- and endopod, tip narrowly rounded, distal portion slightly expanded and bearing both short setae and minute pectinate scales, which are present also along all length of appendix (Fig. 16). Both exo- and endopod entire, not jointed.

*Pleopod 3* (Fig. 17) - Both exo- and endopod entire. Exopod longer than endopod, inner margin almost entirely bare, outer margin fringed anteriorly by short simple setae, and by slender plumose setae placed from middle to apex. Endopod naked.

Pleopod 4 (Fig. 18) - Protopod with short setae along inner margin, coupling setae absent. Exopod partially 2-jointed, endopod entire. Exopod longer than endopod, inner margin naked, outer margin fringed by short, regularly spaced setae but distally and on apex bearing plumose setae. Endopod bare.

*Pleopod 5* (Fig. 19) - Protopod naked. Exopod partially 2-jointed, endopod entire. Exopod longer than endopod, with short simple setae present along outer margin, slender plumose setae lacking. Endopod bare.

Uropod (Fig. 20) - Uniramous, with short setae scattered all over the outer surface; 3 slender plumose setae on outer angle of transversal articulation; outer margin bordered by fine setae, inner margin of basal joint fringed by both fine and short setae, inner margin of distal joint bordered by fine setae only.

PARTIAL DESCRIPTION OF ALLOTYPE OVIGEROUS FEMALE - Body (Fig. 2) - Similar to the male in shape, but smaller and distinctly broader.

Head - With the frontal margin slightly convex medially; occipital groove well marked, but frontal groove clearly visible only close to anteromedial tubercles. Both the two anteromedial tubercles and the pair of large convexities situated between the eyes, as developed as in the male.

*Pereon* - Pereonites II-IV each showing dorsally a semilunar scar, which is indistinct in the holotype male.

*Pleon* - Shaped as in the male; pleotelson about 1.5 times longer than wide.

DISCUSSION - Synidotea littoralis sp. n. ressembles many species in which the pleotelson apex is emarginate (Benedict, 1897; Richardson, 1905; Menzies & Miller, 1972). However, it seems closer to Synidotea fluviatilis Pillai, 1954 (= S. variegata, Chilton, 1924, not Synidotea variegata Collinge, 1917) by the shape of the margins of the four anterior pereonites ("laterally drawn out into roughly triangular, apically blunt process", cf. Pillai, op. cit.), and to some extent by the greater breadth of the apical excavation of the pleotelson.

However, S. littoralis sp. n. is easily distinguished from S. fluviatilis mainly by:

(a) shape of perconites V-VII (in S. fluviatilis the lateral margins of the perconites are close together and almost straight, with the laterodistal angles quadrate);

(b) number and shape of tubercles on the dorsum of the head (in S. fluviatilis the two small, anteromedial tubercles are lacking, and the surface of the head between the eyes is elevated in a single convexity, contrarily to S. littoralis sp. n., which bears two broady convexities separated by a narrow groove);

(c) overall shape of the pleotelson and shape of its apex (in S. fluviatilis the lateral margins are almost progressively converging mid-distally, and the distal angles narrowly rounded, whereas in S. littoralis sp. n. the distal angles of the pleotelson are broadly rounded, and the lateral margins slightly concave and distinctly divergent for the first two-thirds of its length).

ECOLOGICAL NOTES - The specimens were collected during low water tide from amongst a variety of indetermined intertidal seaweeds.

# Synidotea brunnea sp. n. (Figs 21-38)

HOLOTYPE - Ovigerous female, 6.4 mm long. Paratype female, 6.6 mm long. Dr. Pierre Charles G. Montouchet col. TYPE LOCALITY - Santa Cruz, State of Espírito Santo. Lower intertidal.

ETYMOLOGY - The species name is derived from the Latin word brunneus = brown, and refers to the colour of the animal.

STATION DATA AND MATERIAL EXAMINED - State of Espírito Santo, Santa Cruz. Type locality. Amongst intertidal seaweeds on rock with eroded surface. Hand collection. Holotype specimen. Dr. P. Ch. G. Montouchet col. et leg.

State of Bahia, Ilhéus, Pontal. Among intertidal marine algae on protected rock shore. Hand collection. Paratype specimen. Dr. P. Ch. G. Montouchet col. et leg.

DESCRIPTION - Body - Holotype (Fig. 21) and paratype females - Elongate, depressed, deprived of tubercles or carinae, lateral margins smooth and fringed by minute fine setae. Colour (in alcohol) brownish with darker spots.

*Head* - Broader than long, frontal margin slightly concave; dorsal surface between the eyes raised in a single, broad convexity; both frontal and occipital grooves well marked. Eyes large, composite, dark-brownish, prominent, forming part of the lateral margins of head.

Pereon - Dorsum of each pereonite smooth, and only a little arched; dorsomarginal areas of pereonites I-IV enlarged, distinctly depressed, lateral margins slightly upturned, marginal areas becoming progressively less depressed, and sloping gently, on posterior pereonites; lateral margins of pereonites separated by small gaps; median semilunar scar on pereonites II-IV well marked; disto-lateral angles of pereonite I almost broadly rounded, those of remainder pereonites roundly truncate.

*Pleon* - Pleotelson elongate, about 1.2 times longer than wide, dorsum smooth, arched only a little; dorso-marginal areas, anteriorly, low and slightly concave, concavities progressively becoming shallower posteriorly; lateral sides nearly parallel, posterior third converging almost straight medially, distal margin broady, with a wide but shallow median emargination.

Antenna 1 (Fig. 22) - Peduncular article 1 expanded, the largest of peduncle; articles 2 and 3 short, wide, about equal length; peduncular articles with short, scattered setae, articles 1 and 2 bearing on both inner and outer margins a few broom setae; article 3 about 1.8 times shorter than flagellum. Flagellum uni-articulate, stout, bearing distally on inner side and at the apex both transverse rows of aesthetes and slender setae.

Antenna 2 (Fig. 23) - Peduncle, articles covered by scattered setae; article 4 about 1.8 times shorter than 5, which is narrower than preceding articles. Flagellum short, composed of 13 short articles slightly diminishing in width apically; last 3 articles minute (Fig. 24), with tufts of slender setae, antepenultimate article slightly longer than last two articles together.

Right mandible (Fig. 25) - Female paratype. Incisor with 4 strong, unequal teeth. Lacinia mobilis stout, 4-toothed, with 1 elongate, distally incised, stiffly setose seta arising from base of lacinia. Setal row made up of 5 elongate, strongly combed setae. Molar process strong, sub-cylindrical, ending in an obliquely truncate griding apex bearing laterally 3 stiffly setose setae and many denticles along distal margin.

Maxilla 1 (Fig. 26) - Female paratype. Outer lobe with 9 toothed, encurved, apical spines; 1 lateral, stiffly setose seta placed sub-marginally; both outer and inner margins with setae, those on outer margin delicate and very elongate. Inner lobe smaller than outer lobe, apex with 2 strong elongate plumose setae distally bipectinate.

Maxilla 2 (Fig. 27) - Female paratype. Two outer lobes each with about 7 unequal, apical pectinate setae. Inner lobe bearing at apex both 8 minutely combed and 4 stiffly setose setae. All three lobes reaching distally about same level.

Maxilliped (Fig. 28) - Female paratype. Endite with 1 recurved coupling hook, and with about 7 apical, moderately slender setose setae. Palp 3-articulate, last article expanded and fringed by setae. Epipod large, laminar, grossly rectangular with distal margin rounded, both outer and distal margins fringed by fine setae.

Pereopod I (Fig. 29) - Stout, subchelate, with ventral margin of ischium through to propodus fringed by both finely and strongly bipectinate setae (Fig. 30) and by minute fine setae. Propodus strong, longer than merus and carpus together, broader proximally; inner lateral surface covered by both finely and strongly combed setae. Dactylus ending into 2 stout unequal claws (Fig. 31) and slender setae arising from base of claws.

Pereopod VII (Fig. 32) - Ventral margin of merus, carpus and propodus with groups of pectinate setae (Fig. 30), that of basis and ischium with short setae and minute fine setae, which are also present on previously named articles. Dactylus ending in a single curved claw and slender setae placed at base of claw. *Pleopod 1* (Fig. 33) - Protopod projected a little at the inner distal angle, inner margin with fine setae and many recurved coupling hooks. Both exo- and endopod entire, elongate, laminar, distally rounded, margins fringed with slender plumose setae.

*Pleopod 2* (Fig. 34) - Protopod with a few coupling hooks distally on inner margin. Both exo- and endopod laminar, elongate, apically rounded. Exopod entire, both outer margin and apex fringed by plumose setae, inner margin by scattered short setae. Endopod 2-jointed, inner and outer margins bordered by short setae, slender plumose setae restricted to apex of distal joint.

*Pleopod 3* (Fig. 35) - Protopod with 3-4 coupling hooks on inner distal angle. Exo- and endopod entire, elongate, fleshy. Exopod with slender plumose setae bordering apex and distal part of outer margin. Endopod naked.

*Pleopod 4* (Fig. 36) - Protopod with a few short setae on both inner and outer margins, coupling hooks absent. Exopod elongate, narrower than endopod, with plumose setae on apex and on outer margin distally. Endopod bare. Both exo- and endopod entire, fleshy.

*Pleopod 5* (Fig. 37) - Protopod naked. Exopod entire, narrower than endopod, both outer margin and apex bordered by short fine setae, 1 single slender plumose seta placed sub-apically on inner margin. Endopod entire, bare. Both exo- and endopod fleshy.

Uropod (Fig. 38) - Uniramous, with short setae scattered all over outer surface; 3 slender plumose setae on outer angle of transversal articulation; outer margin and both apex and inner margin of distal uropodal joint fringed by short setae and minute fine setae.

DISCUSSION - Synidotea brunnea sp. n. seems most closely related to Synidotea laticauda Benedict, 1897, especially by both the wide apical notch and broadness of the pleotelson.

However, S. brunnea sp. n. can be distinguished from S. laticauda by the following combination of major features:

(a) general shape of body, and its distinctive flatness;

(b) frontal margin widely and shallowly concave;

(c) pereonite I broader than pereonite VII (in S. laticauda the pereonite
 VII is broader or as broad as pereonite I; see Benedict, 1897, fig. 4; Menzies
 & Miller, 1972, fig. 4a-c);

(d) dorso-marginal surface of pereonites I-IV distinctly low, depressed, sloping gently on posterior pereonites;

(e) shape of pleotelson, with the lateral sides, medially, almost parallel (in S. laticauda the pleotelsonal sides taper distinctly and gradually for the first two-thirds of its length; see Benedict, 1897, p. 394, fig. 4; Menzies & Miller, 1972, fig. 4a-c);

(f) pleotelson much longer than broad (in S. laticauda as long as broad, or slightly longer than broad);

(g) stoutness and shortness of both 1st and 2nd antennae, and relative proportions of their articles.

Actually, the antenna 1 in Synidotea brunnea sp. n. reaches to about the middle of the 3rd peduncular article of the antenna 2, while in S. laticauda it reaches at least the distal margin of that article; moreover, the flagellum is about 1.8 times the length of the peduncular article 3, whereas in S. laticauda it is 2 or 2.5 times longer (Benedict, 1897; Richardson, 1905; Menzies & Miller, 1972).

Again, in S. brunnea sp. n. the flagellum of the antenna 2 is composed of 13 articles, while that of S. laticauda has 17-21 articles (Benedict, op. cit.; Richardson, op. cit.; Menzies & Miller, op. cit., fig. 4b, c).

Synidotea brunnea sp. n., by the emarginate apex of the pleotelson, resembles also many other species of the genus. From these, it seems most similar to Synidotea marplatensis Giambiagi, 1922. However, the two species can be distinguished easily from each other by the following main characteristics:

(a) overall shape and convexity of the body (in S. marplatensis each pereonite and the pleotelson are far more arched than in S. brunnea sp. n.);

(b) pereonites dorso-marginal depressions (in S. marplatensis they are lacking, whereas in S. brunnea sp. n. this character is very striking and distinctive);

(c) shape of the pleotelson (contrarily to what is found in S. brunnea sp. n., in S. marplatensis the pleotelson narrows distinctly posteriorly for the first two-thirds of its length (Mañe-Garzón, 1946, lam. 2, fig. 1; Moreira, 1972, fig. 3, 1973, fig. 8).

REMARKS - It seems useful to pointing out that the semilunar scars observed in S. marplatensis, S. littoralis sp. n. and S. brunnea sp. n., are restricted to pereonites II-IV only. On remainder pereonites the supposedly corresponding "scars" are represented by the anterior margin of the segments, which are pronouncedly concave medially.

ECOLOGICAL NOTES - The studied specimens of *S. brunnea* sp. n. were collected in the intertidal zone, at low water tide, from among species of marine algae.

At Santa Cruz (type locality), State of Espírito Santo, the holotype ovigerous female was gathered from the following species of seaweeds: Sargassum cymosum var. stenophyllum, Dictyopteris plagiogramma, Dictyopteris delicatula and Vidalia sp.; I.P. Sazima and L. Behar det.

At Pontal, Ilhéus, State of Bahia, the female paratype was collected from among the seaweeds: Gelidiella acerosa, Hypnea musciformis, Laurencia sp., Cryptonemia crenulata, Corallina cubensis, Corallina sp., Ulva fasciata and probably Gracilaria sp.; I.P. Sazima and L. Behar det.

#### RESUMO

No presente trabalho são descritas duas novas espécies de isópodes marinhos pertencentes ao gênero Synidotea Harger, 1878, i.e., Synidotea littoralis sp. n. e Synidotea brunnea sp. n.. As espécies foram coletadas nos Estados de Alagoas (S. littoralis sp. n.), Bahia e Espírito Santo (S. brunnea sp. n.), entre algas, na região entre-marés.

### ACKNOWLEDGMENTS

The authors gratefully acknowledge Prof. Dr. Paulo Sawaya and Dr. Pierre Ch. G. Montouchet for the material and informations.

#### REFERENCES

BENEDICT, J.E. 1897. A revision of the genus Synidotea. Proc. Acad. nat. Sci. Philadelphia, 53:389-404, lams 1-4.

- CHILTON, CH. 1924. Fauna of the Chilka Lake. Tanaidacea and Isopoda. Mem. Indian Mus., 5:877-896, pl. 60.
- COLLINGE, W.E. 1917. Description of a new species of Isopoda of the genus Synidotea, Harger, from the Gulf of Mannar. Rec. Indian Mus., 13(1):1-3, pl. 1.
- GIAMBIAGI, D. 1922. Cuatro nuevos isopodos de la Argentina. Physis, B. Aires, 5(20):230-244, lams 1-4.

MANE-GARZÓN, F. 1946. Nueva especie de crustaceo isopodo del Uruguay: Synidotea sphaeromiformis n. sp. Comun. zool. Mus. Hist. nat. Montevideo, 2(28):1-7, ests 1-2.

- MENZIES, R.J. & MILLER, M.A. 1972. Systematics and zoogeography of the genus Synidotea (Crustacea: Isopoda) with an account of Californian species. Smithsonian Contr. Zool., 102:1-33, figs 1-12.
- MOREIRA, P.S. 1966. Sobre espécies da família Serolidae (Isopoda, Flabellifera) do litoral norte do Estado de São Paulo. Universidade de São Paulo. Tese de Doutoramento, 175 p.
  - southern Brazil. Species of marine Isopoda (Crustacea, Peracarida) from Bolm Inst. oceanogr., S Paulo, 21:163-179, figs 1-5.

1973. Espécies de Isopoda (Crustacea, Peracarida). In: Relatório sobre a segunda pesquisa oceanográfica e pesqueira do Atlântico Sul entre Torres e Maldonado (Lat. 29°S - 35°S). Publção esp. Inst. oceanogr., S Paulo, (3), Part I:213-229, figs 1-8.

- PILLAI, N.K. 1954. A preliminary note on the Tanaidacea and Isopoda of Travancore. Bull. Central Res. Inst., ser. C, 3(1):1-21.
- RICHARDSON, H. 1905. Monograph of the Isopoda of North America. Bull. U.S. natn Mus., (54):vii-liii + 1-727, figs 1-740.

Figs 1-6 - Synidotea littoralis sp. n., holotype adult male, 8.0 mm long (Figs 1, 3-6); allotype ovigerous female, 6.5 mm in length (Fig. 2).

Fig. 1 - Holotype male, dorsal view.

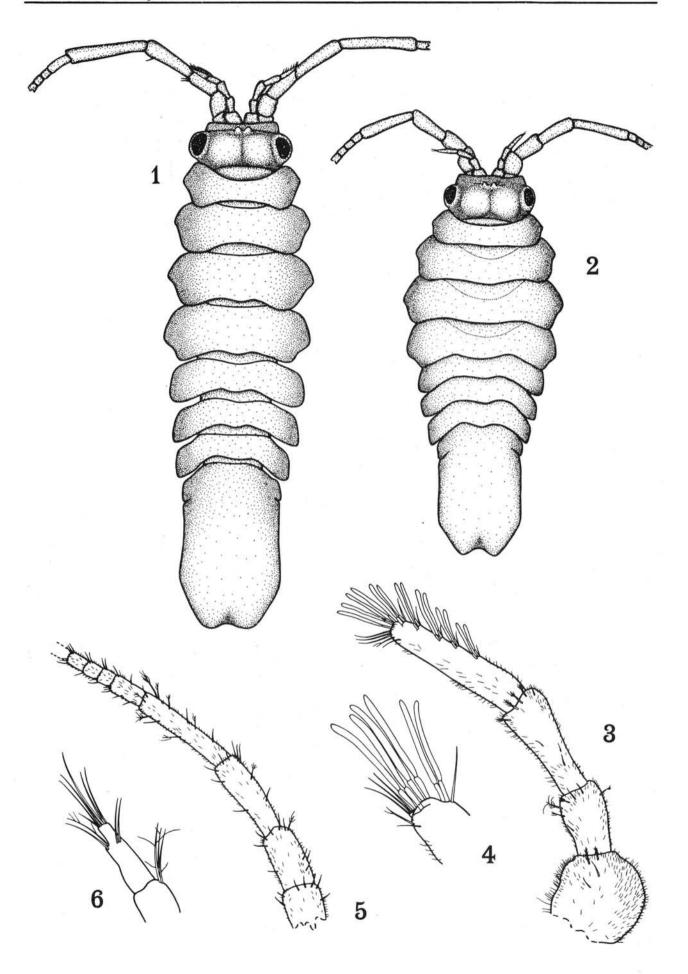
Fig. 2 - Allotype female, dorsal view.

Fig. 3 - Antenna 1.

Fig. 4 - Antenna 1, apex of flagellum.

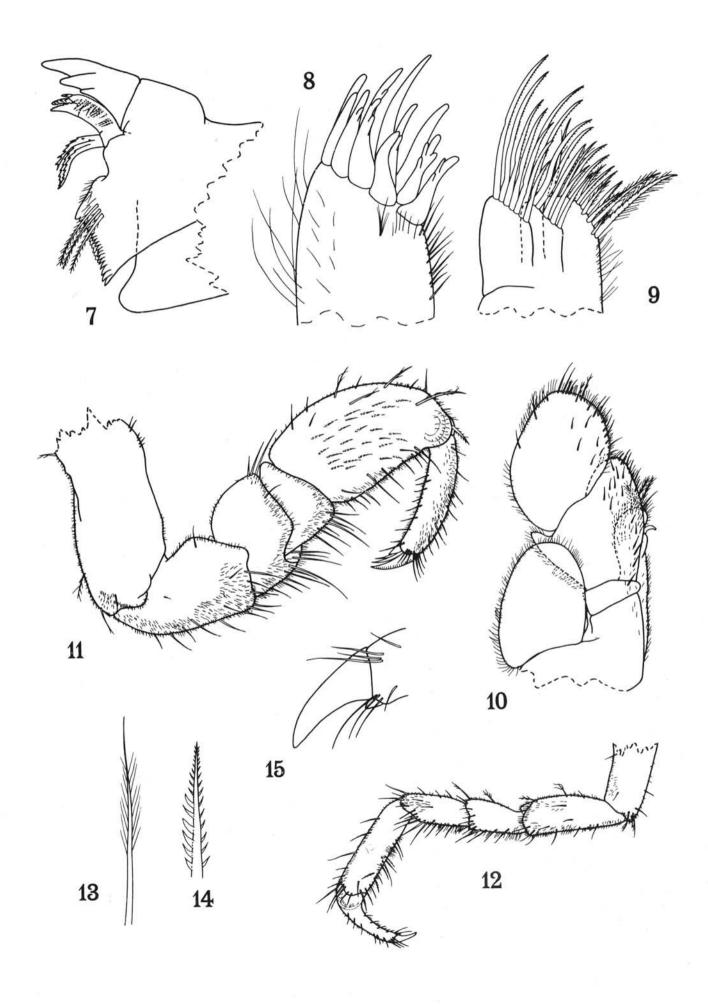
Fig. 5 - Antenna 2, peduncle and 1st articles of flagellum.

Fig. 6 - Antenna 2, apex of flagellum.



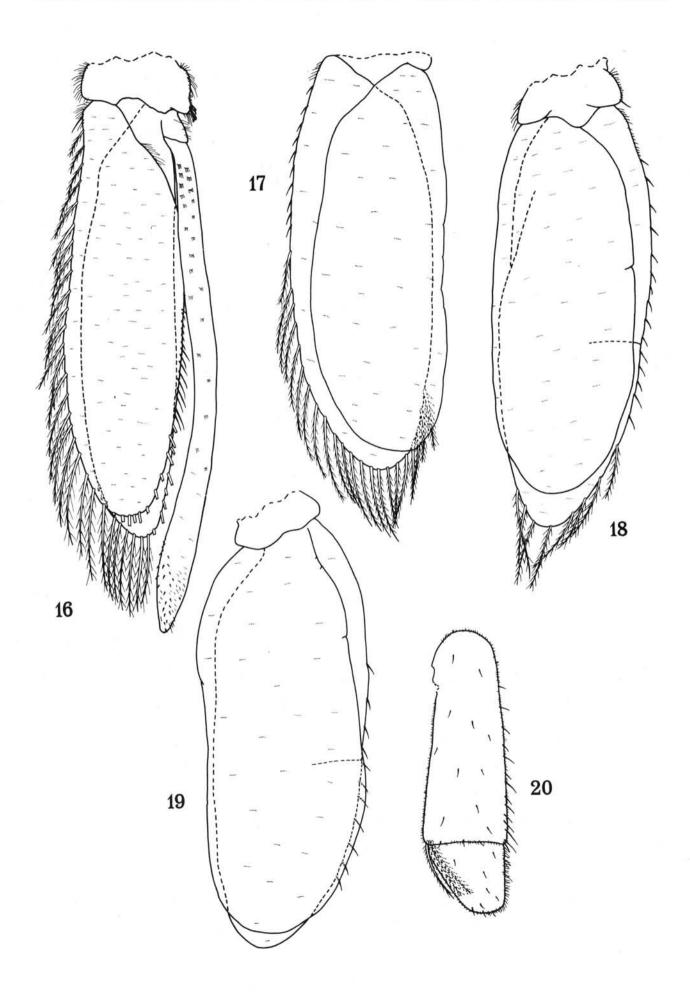
Figs 7-15 - Synidotea littoralis sp. n., holotype adult male, 8.0 mm long.

Fig. 7 - Right mandible, distal part.
Fig. 8 - Maxilla 1, distal part of outer lobe.
Fig. 9 - Maxilla 2, distal part.
Fig. 10 - Maxilliped.
Fig. 11 - Pereopod 1.
Fig. 12 - Pereopod VII.
Figs 13 e 14 - Pereopod VII, stiffly setose seta and strongly bipectinate seta
Fig. 15 - Pereopod VII, apex of dactylus.



Figs 16-20 - Synidotea littoralis sp. n., holotype adult male, 8.0 mm long.

Fig. 16 - Pleopod 2. Fig. 17 - Pleopod 3. Fig. 18 - Pleopod 4. Fig. 19 - Pleopod 5. Fig. 20 - Uropod.



Figs 21-28 - Synidotea brunnea sp. n., holotype ovigerous female, 6.4 mm long (Figs 21-24); paratype female, 6.6 mm in length (Figs 25-28).

Fig. 21 - Whole animal, dorsal view.

Fig. 22 - Antenna 1.

Fig. 23 - Antenna 2, peduncle and 1st flagellar articles.

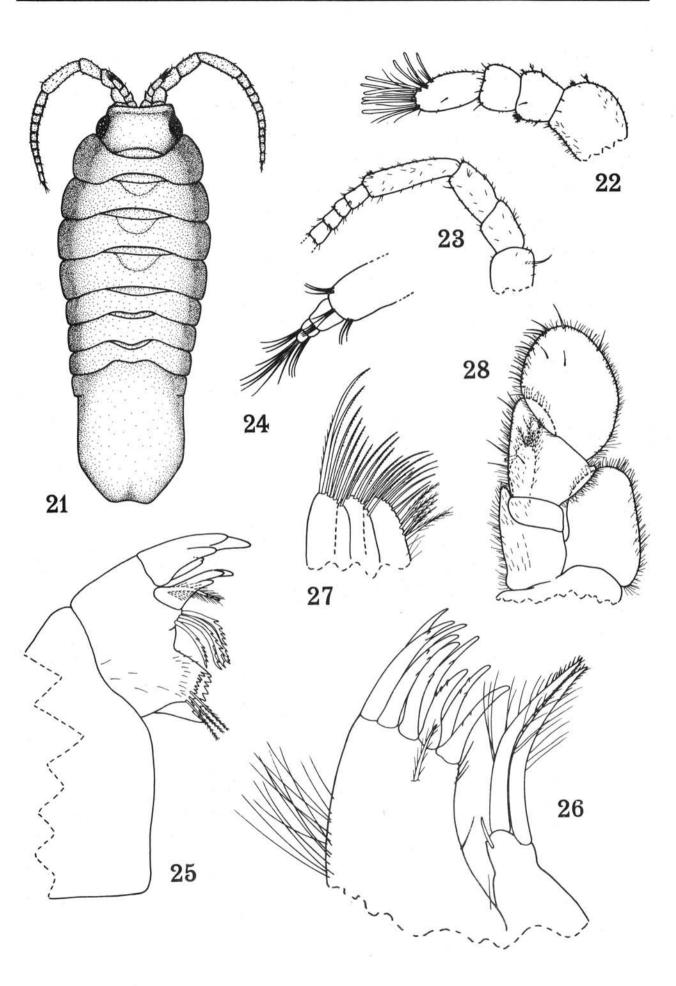
Fig. 24 - Antenna 2, apex of flagellum.

Fig. 25 - Right mandible, distal part.

Fig. 26 - Maxilla 1, distal part.

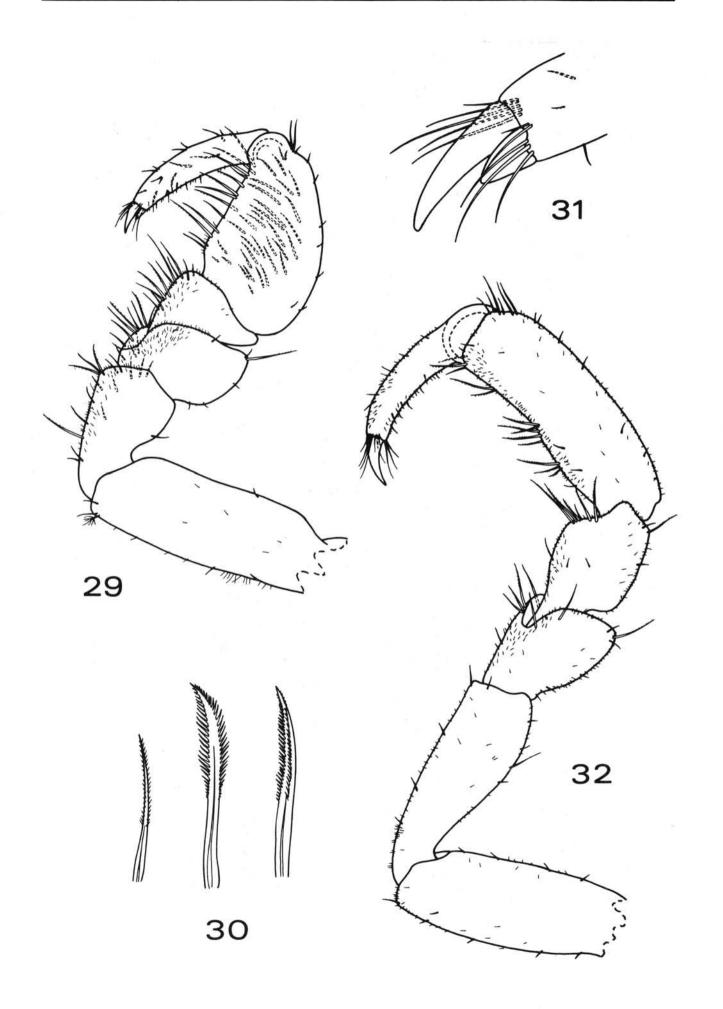
Fig. 27 - Maxilla 2, distal part.

Fig. 28 - Maxilliped.



Figs 29-32 - Synidotea brunnea sp. n., holotype ovigerous female, 6.4 mm long.

Fig. 29 - Pereopod I.
Fig. 30 - Pereopod I, finely and strongly bipectinate setae.
Fig. 31 - Pereopod I, apex of dactylus.
Fig. 32 - Pereopod VII.



Figs 33-38 - Synidotea brunnea sp. n., holotype ovigerous female, 6.4 mm long.

Fig. 33 - Pleopod 1. Fig. 34 - Pleopod 2. Fig. 35 - Pleopod 3. Fig. 36 - Pleopod 4. Fig. 37 - Pleopod 5. Fig. 38 - Uropod.

