

**SYRRHOITES BARNARDI, NEW MARINE AMPHIPOD FROM
THE MEDITERRANEAN SEA, WITH REMARKS TO GENUS
SYNOPIA DANA (GAMMARIDEA, SYNOPIIDAE) (CONTRIBU-
TION TO THE KNOWLEDGE OF THE AMPHIPODA 155)**

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A b s t r a c t

One new species of family *Synopiidae*, *Syrrhoites barnardi*, n. sp. is described and figured from deep sea bottom of Bay of Neapel (Golfo di Napoli) in the Mediterranean Sea. New diagnoses of genera *Syrrhoites* Sars 1895 and *Latacunga* J. L. Barnard 1972 are given and taxonomic problems of these genera are discussed. Key to the species of genus *Syrrhoites* in the Mediterranean Sea is composed. Taxonomic characters of genus *Synopia* Dana 1853 are analysed and new subgenus *Telsosynopia*, n. sbg. is established with type-species *S. variabilis* Spandl 1923.

I z v o d

SYRRHOITES BARNARDI, NOVI MORSKI AMFIPOD IZ SREDOZEMNOG MORA, SA OSVRTOM NA ROD SYNOPIA DANA (GAMMARIDEA, SYNOPIIDAE) (155. PRILOG POZNAVANJU AMPHIPODA)

Jedna nova vrsta iz familije *Synopiidae*, *Syrrhoites barnardi*, n. sp. opisana je i nacrtana iz dubokog morskog dna u Napuljskom zaljevu u Sredozemnom moru. Prezentirane su nove dijagnoze rodova *Syrrhoites* Sars 1895. i *Latacunga* J. L. Barnard 1972, i analizirani su taksonomski problemi ovih rodova. Sastavljen je ključ za determinaciju roda *Syrrhoites* u Sredozemnom moru. Analizirani su taksonomski karakteri roda *Synopia* Dana 1853. i postavljen je novi podrod *Telsosynopia*, n. sbg. sa tipom roda *S. variabilis* Spandl 1923.

INTRODUCTION

The studies of deep sea bottom fauna of *Amphipoda* in the Mediterranean Sea have been provided intensively during last 20 years, and numerous new genera and species were discovered and

described by numerous scientists (Ruffo, Bellan-Santini, G. Karaman, Ledoyer, etc.).

Regarding genus *Syrrhoites*, Ledoyer mentioned (1977) *Syrrhoites pusilla* Enequist 1950, from NW. part of the Mediterranean Sea. Bellan-Santini described (1983) two new species of this genus from the Mediterranean Sea (*S. capricornia* and *S. cornuta*).

Based on our recent study of some samples of family *Synopiidae* from the Mediterranean Sea, given me very kindly at disposition for study by Dr. S. Ruffo from Verona, one new species of genus *Syrrhoites* was discovered, presented here under the name of *Syrrhoites barnardi*, n. sp.

By this way, in the Mediterranean Sea are known now 4 species of this genus: *barnardi*, *capricornia*, *cornuta* and *pusilla*.

Acknowledgments: I am indebted to Dr. Sandro Ruffo from the Museum of Natural History in Verona (Italy) for the material used in this study.

TAXONOMIC PART

TAXONOMIC RELATIONS OF GENERA SYRRHOITES AND LATACUNGA

Genus *Syrrhoites* established Sars (1895) with type species *Cruzelia serrata* Sars 1879, and later numerous species of this genus were discovered and described by many authors.

J. L. Barnard established (1962) a new genus *Kindia* (type species: *K. sorpresa* J. L. Bar. 1962) including in it also *K. lorida* J. L. Bar. 1962. Barnard later (1964) synonymized this genus with genus *Syrrhoites*.

Barnard established (1972) a new genus *Latacunga* with type species *Latacunga latacunga* J. L. Barnard 1972, including in it also *L. comanita* J. L. Barnard 1972.

Genus *Latacunga* is very similar to genus *Syrrhoites*, differing from later by triangular shape of coxa 1 (distal part is tapering into obtuse tip) and by presence of serrate (toothed) corner spines on palm of gnathopods. But already the type species of genus *Latacunga*, *L. latacunga*, is provided with 1 simple and 1 serrate corner spine on gnathopod 1, and with 2 serrate corner spines on palm of gnathopod 2. Second species, *L. comanita*, is provided with 2 simple corner spines on palm of gnathopod 1 and with 2 serrate corner spines on palm of gnathopod 2.

On the other hand, palm of gnathopods 1-2 in (probably) all species of genus *Syrrhoites* is provided with simple corner spines. In this light, because of combination of serrate and simple corner

spines on palm of gnathopod 1 in species of genus *Latacunga*, this character is not especially useful on generic level.

Coxa 1 in *L. comanita* is with almost pointed narrow ventral tip; coxa 1 in *L. latacunga* is already less triangular than that of *L. comanita*, tapering distally into obtuse broad tip. Coxa 1 in all *Syrrhoites* species (sensu auct.) is not tapering distally, but with transverse ventral margin and with more or less parallel lateral margins.

By this way, at the moment, the single taxonomic character, still available to separate genus *Syrrhoites* from genus *Latacunga* is the shape of coxa 1: triangular (tapering ventrally) in genus *Latacunga*, and quadrate (nearly transverse ventral margin) in genus *Syrrhoites*. If some new species with transitive shape of coxa 1 will be discovered, genus *Latacunga* will be submerged into genus *Syrrhoites*. At the moment, we leave both genera as distinct ones.

Our new species, *S. barnardi* n. sp., is provided with combination of characters of both genera, *Syrrhoites* and *Latacunga* (coxa 1 like *Syrrhoites*, serrate palmar spines on gnathopod 1 like *Latacunga*) suggesting that both genera are very similar to each other and that they can be maybe fused together. We removed *barnardi* to the genus *Syrrhoites* based on shape of coxa 1, considering the shape of corner spines on palm of gnathopods less important than shape of coxa 1.

The discovery of *Syrrhoites barnardi*, n. sp. suggested some modifications of diagnosis of genera *Syrrhoites* and *Latacunga*.

Genus LATACUNGA J. L. Barnard 1972

Syn.: *Latacunga* J. L. Barnard 1972:35.

Type-species: *Latacunga latacunga* J. L. Barnard 1972 (orig. desig.).

Diagnosis: Body laterally compressed, dorsally toothed, urosomites free. Head with strong, recurved rostrum, lateral cephalic lobes short, without ventroanterior sinus. Eyes absent. Antennae 1-2 normal. Peduncle of antenna 1 stout, articles 2-3 slender, accessory flagellum present. Labrum entire (?), labium with poorly marked inner lobes, outer lobes short and broad. Mandible with extremely large smooth molar dominating mandible, incisor entire or weakly 2-dentate; palp slender, 3-segmented, linear, palp segment 3 shorter than 1, article 2 is the longest one. Maxilla 1 inner plate with row of distolateral setae, outer plate with 11 spines, palp slender, 2-segmented. Maxilla 2 with both plates short and broad, inner plate with oblique facial row of setae, as well as lateral and distal setae. Maxilliped with inner plate short and

large, outer plate with row of distolateral spines, palp 4-segmented, with nail.

Coxae long, coxa 1 triangular, with narrowed distal tip, coxa 3 dilated ventrally, coxa 4 with excavated proximoposterior part; coxae 5-6 short, bilobe, coxa 7 entire. Gnathopods 1-2 feeble, subchelate, with elongated segment 5 and narrow segment 6 having oblique palm bearing simple and serrate corner spines. Pereopods 3-4 linear, normal. Pereopods 5-7 similar to each other in the shape, with ovoid, lobed segment 2. Pleopods biramous. Uropods 1-2 biramous, outer ramus much shorter than inner one. Uropod 3 biramous, rami poorly unequal, outer ramus 2-segmented. Telson long, deeply cleft. Coxal gills occur on pereonites 2-6, simple, ovoid. Oostegyts narrow, occur on pereonites 2-5. Sexual dimorphism present (antennae 1-2, urosomites, etc.).

Taxa: *comanita* J. L. Barnard 1972; *latacunga* J. L. Barnard 1972.

Distribution: Ecuador, Caribbean Colombia, on 1363-2944 meters depth.

Genus SYRRHOITES Sars 1895

Syn.: *Syrrhoites* Sars 1895: 391; Stebbing 1906: 279; J. L. Barnard 1964: 30; J. L. Barnard 1969: 462; J. L. Barnard 1972: 64.

Type-species: *Bruzelia serrata* Sars 1879 (orig. designation).

Diagnosis: Body like that of genus *Latacunga*, ventral margin of pereonites in males sometimes with sternal hooks. Head with strong recurved rostrum, lateral cephalic lobes short, without ventroanterior sinus. Eyes absent. Antennae 1-2 normal, ped. segment 1 of antenna 1 inflated, with or without distal tooth, accessory flagellum present.

Mouthparts like these in *Latacunga*, labrum entire; labium with poorly developed inner lobes. Mandible molar dominating mandible, incisor smooth or toothed. Outer plate of maxilla 1 with 10-11 spines. Coxae 1-3 with nearly parallel lateral margins or dilated distally, always with transverse ventral margin, coxa 4 tapering distally, with excavated proximoposterior part. Gnathopods 1-2 subchelate or almost simple, articles 2-6 like these in *Latacunga*, but palm with simple or serrate corner spines, segment 5 elongated, unlobed. Pereopods 3-4 normal, linear. Pereopods 5-7 with lobed or unlobed segment 2. Uropods 1-3 like these in *Latacunga*, peduncle with or without distal tooth. Outer ramus of uropod 3 probably 2-segmented. Telson long, deeply incised. Coxal gills, oostegyts and sexual dimorphism like these in *Latacunga*.

Taxa: *anaticauda* K. H. Barnard 1930; *barnardi*, n. sp.; *capricornia* Bellan-Santini 1983; *cohasseta* J. L. Barnard 1967; *columbiae* J. L. Barnard 1972; *cornuta* Bellan-Santini 1983; *cu* J. L. Barnard 1972; *dulcis* J. L. Barnard 1967; *lorida* (J. L. Barnard 1962); *pacifica* Nagata 1965; *pantasma* J. L. Barnard 1972; *pusilla* Enequist 1950; *redox* J. L. Barnard 1967; *serrata* Sars 1895; *silex* J. L. Barnard 1967; *sorpresa* (J. L. Barnard 1962); *tenella* K. H. Barnard 1925; *terceris* J. L. Barnard 1964; *trux* J. L. Barnard 1967; *walkeri* Bonnier 1896; »species A« J. L. Barnard 1972.

Remarks: The variability and validity of taxonomic characters: shape of article 2 in pereopods 5-7, shape of incisor of mandible and presence or absence of sternal hooks (in males) must be reexamined in almost all known species of this genus.

KEY TO THE MEDITERRANEAN SYRRHOITES — SPECIES:

1. Metasomsegment 3 with short horizontal submarginal tooth; urosomite 2 with 2 dorsomedian posterior teeth. Coxa 3 with dilated pointed ventroanterior corner BARNARDI
- Metasomsegment 3 with marginal dorsoposterior tooth recurved upwards; urosomite 2 with one dorsomedian posterior tooth. Coxa 3 with parallel lateral margins and with obtuse or subrounded ventroanterior corner 2
2. Dactyl of pereopods 3-4 nearly as long as segment 6; dorsoposterior tooth on metasomsegment 3 short and recurved PUSILLA
- Dactyl of pereopods 3-4 distinctly shorter than segment 6; dorsoposterior tooth on metasomsegment 3 long and large, not recurved 3
3. Inner plate of maxilla 1 with 2 setae only; urosomite 3 smooth CORNUTA (female)
- Inner plate of maxilla 1 with 9 setae; urosomite 3 with row of small marginal spines CAPRICORNIA (male)

SYRRHOITES BARNARDI, N. SP.*
figs. I-V

Material examined: ITALY: Golfo di Napoli, 2 spec. (data?), leg. U. Schiecke (Coll. Museum Nat. Hist. Verona).

Description: Holotype, ovig. female 1.9 mm with one egg in marsupium: Body stout, laterally compressed, urosomites free. Mesosomal segments 1-6 smooth, mesosomal segment 7 and

* This species is dedicated to Dr. Jerry L. Barnard, world well-known amphipodologist from the Smithsonian Institution in Washington, D. C.

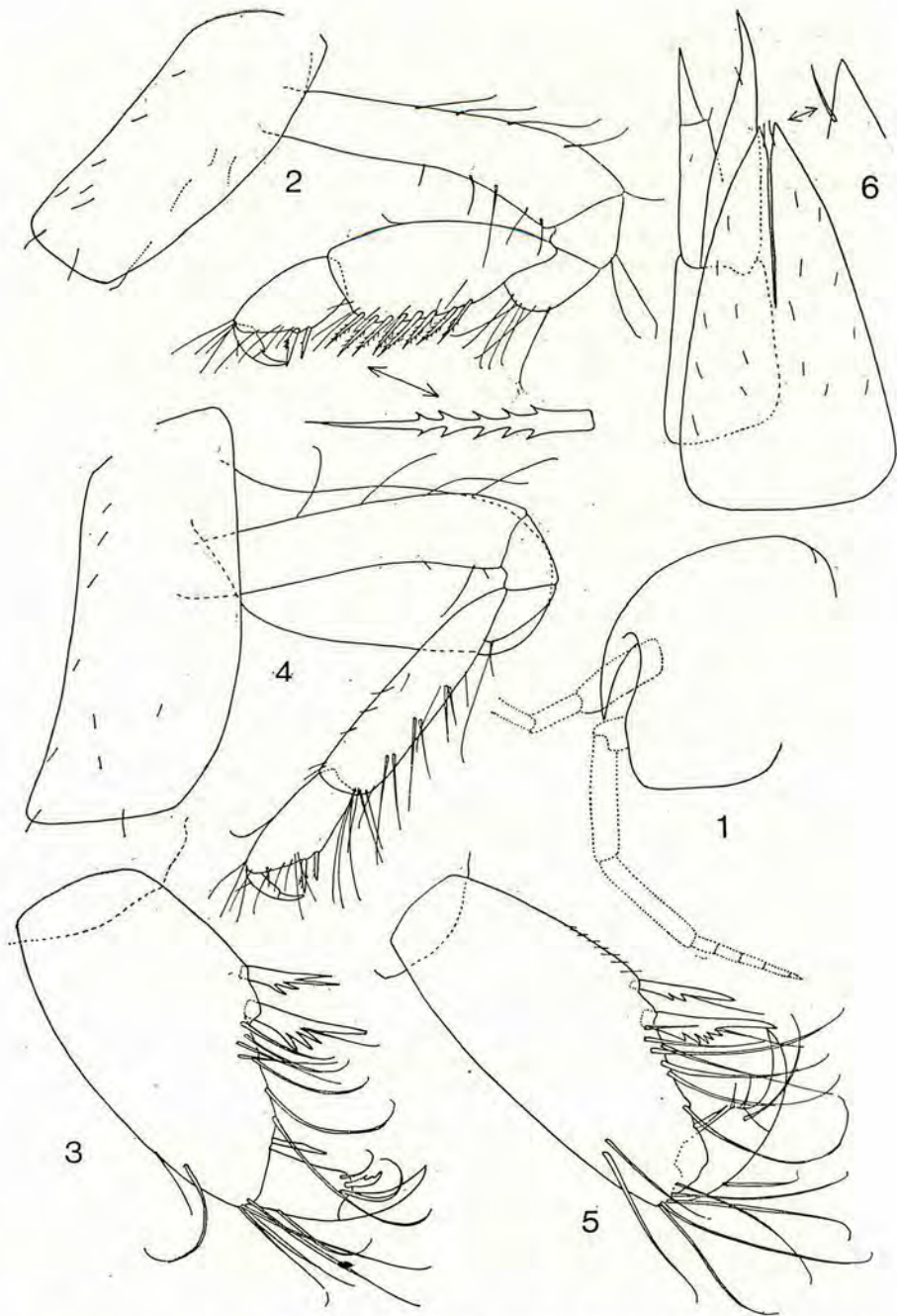


Fig. 1. *Syrrhoites barnardi*, n. sp., Golfo di Napoli, female 1.9 mm: 1 = head; 2-3 = gnathopod 1; 4-5 = gnathopod 2; 6 = telson and uropod 3.

metasomal segments 1-2 with one dorsoposterior median small tooth (fig. III, 4), metasomal segment 3 with one median submarginal dorsal tooth (fig. III, 4); urosomite 1 without dorsal tooth (?), but with 3 setae; urosomite 2 with two small dorsoposterior teeth, urosomite 3 without tooth, but with 4 setae (fig. V, 4). Whole body and extremities covered by sparse small setae (fig. I, 2, 4; IV, 1, 3, 5; V, 6).

Head with strongly convex dorsal margin (in lateral projection) (fig. I, 1), rostrum strong and long (fig. I, 1), lateral cephalic lobes obtuse, not exceeding anteriorly the rostrum; ventroanterior sinus absent (fig. I, 1), eyes non visible.

Antennae 1-2 short, subequally long, reaching nearly $1/3-2/5$ of body. Antenna 1: peduncular segment 1 slightly inflated, without distal process or tooth; peduncular segments 2-3 slender, segment 3 slightly longer than 2 (fig. II, 1); main flagellum slightly shorter than peduncle, slender, consisting of 6-7 articles bearing one long aesthetasc each (fig. II, 1); accessory flagellum 2-segmented, second segment short (fig. II, 1), first segment with 3 lateral setae.

Antenna 2 with short third peduncular segment (fig. II, 2), peduncular segment 4 slightly longer than 5, both with bunches of setae at dorsal surface (fig. II, 2), flagellum slightly inflated, consisting of 5 articles bearing longer dorsal setae each (fig. II, 2); antennal gland cone short, not reaching tip of third peduncular segment.

Labrum entire, broader than long (fig. III, 3). Labium shallow and broad, outer lobes incised and with long lateral lobes; inner lobes well developed, tapering distally (fig. III, 5).

Mandibles with extremely developed entire molar dominating mandible (fig. II, 7), incisor with 2 teeth (fig. II, 7, 8). Left mandible with lacinia mobilis having 6 teeth (fig. II, 7), right mandible with lacinia mobilis having 4 teeth (fig. II, 8); between incisor and molar appears one small protrusion, but without distinct plumose row of setae (fig. II, 7, 8). Palp small, 3-segmented, linear: first segment smooth, second segment with 6 setae, third segment reaching almost half of second segment, bearing 4 distal setae (fig. II, 7).

Maxilla 1: inner plate triangular, with row of 5 distolateral plumose setae (fig. II, 5); outer plate with 11 apparently smooth teeth, palp slender, 2-segmented, only slightly exceeding basis of spines on outer plate, and bearing 3 distal and 3 lateral setae (fig. II, 5).

Maxilla 2 with short and broad both plates, inner plate with row of dorsofacial setae and with distal and lateral setae (fig. II, 6), outer plate with distal setae only (fig. II, 6).

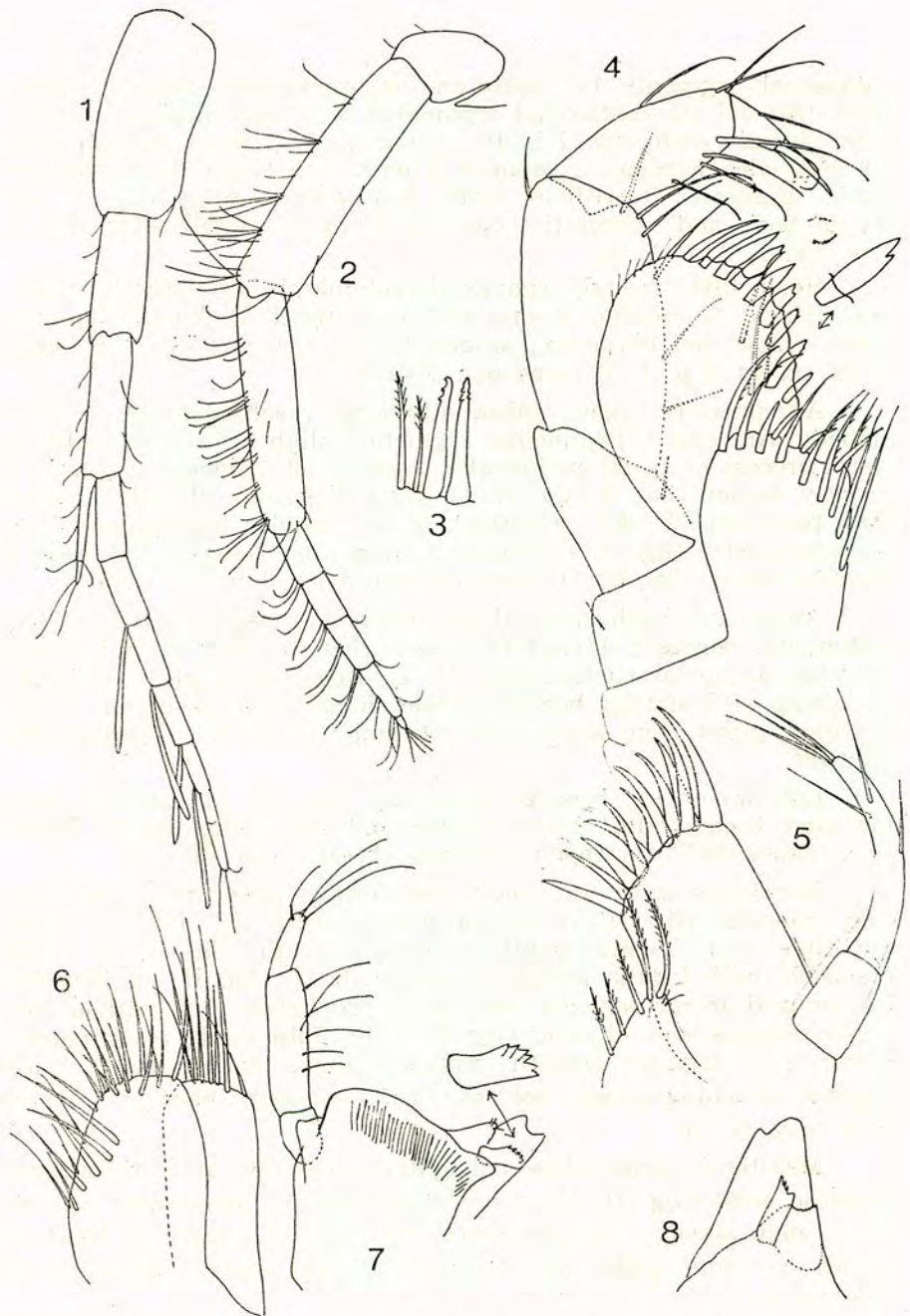


Fig. II. *Syrrhoites barnardi*, n. sp., Golfo di Napoli, female 1.9 mm: 1 = antenna 1; 2 = antenna 2; 3 = retinacula of pleopods 1-3; 4 = maxilliped; 5 = maxilla 1; 6 = maxilla 2; 7 = left mandible; 8 = incisor of right mandible.

Maxilliped stout: inner plate not exceeding outer tip of first palp segment, transverse distally, bearing 3 distal slender spines and row of distolateral plumose setae (fig. II, 4); outer plate reaching $\frac{3}{4}$ of second palp segment, short and broad, with a row of distolateral strong spines notched distally (fig. II, 4); palp 4-segmented, poorly setose, third segment narrow, segment 4 slender, with nail longer than peduncle, bearing one seta at outer margin and 2 setae near basis of nail at inner margin (fig. II, 4).

Coxae 1-4 much longer than broad: coxae 1-2 with nearly parallel lateral margins (fig. I, 2, 4), coxa 2 with slightly concave anterior margin (fig. I, 4), slightly longer than coxa 1; coxa 3 trapezoid, dilated ventrally, with pointed ventroanterior corner (fig. III, 1); coxa 3 is slightly longer than coxa 2. Coxa 4 slightly shorter than 3, tapering ventrally, with excavate posteroproximal part and with obtuse ventral part (fig. III, 2). Coxa 5 much shorter than coxa 4, bilobe, posterior lobe larger than anterior one (fig. IV, 1); coxa 6 bilobe, slightly smaller than coxa 5 (fig. IV, 3); coxa 7 much smaller than 6, entire (fig. IV, 5).

Gnathopods 1-2 slender and long, subchelate. Gnathopod 1 is slightly shorter than 2 (fig. I, 2, 4), its segment 2 is long, bearing several longer setae along posterior margin (fig. I, 2); segments 3-4 short, segment 5 long and inflated, unlobed, with row of toothed spine-like setae along posterior margin (fig. I, 2); segment 6 much smaller and shorter than 5, longer than broad (fig. I, 3), with palm oblique, slightly concave, defined by 2 strong, toothed spines and with one slender spine near basis of dactyl (fig. I, 3), as well as with 3 facial setae near corner spines; dactyl short and stout, with one pectinate spine near basis of nail accompanied by 2 setae; at outer margin of dactyl appears one medial setae (fig. I, 3).

Gnathopod 2: segment 2 linear, with several setae at posterior margin (fig. I, 4); segments 3-4 short; segment 5 more than three times longer than broad, linear, with bunches of setae at posterior margin; segment 6 only slightly narrower than segment 5, twice longer than broad (fig. I, 5), palm oblique, defined by 2 strong pectinate (toothed) spines and 3 long facial setae; one slender spine appears near basis of dactyl; dactyl like that of gnathopod 1 (fig. I, 5), with one seta at outer margin.

Pereopods 3-4 slender, with linear segments 2, 3, 5, 6; segment 4 is short and slightly dilated at anterior margin (fig. III, 1, 2); dactyl slender and short, nearly reaching half of segment 6, bearing one seta at inner margin (fig. III, 1, 2).

Pereopods 5-7 moderately long, with segment 2 ovoid, serrate at posterior margin and with strong ventroposterior lobe progressively larger towards pereopod 7 (fig. IV, 1, 3, 5); segment 4 slightly dilated, segments 5-6 slender; dactyl slender, at inner margin with one median and one subdistal seta near basis of nail

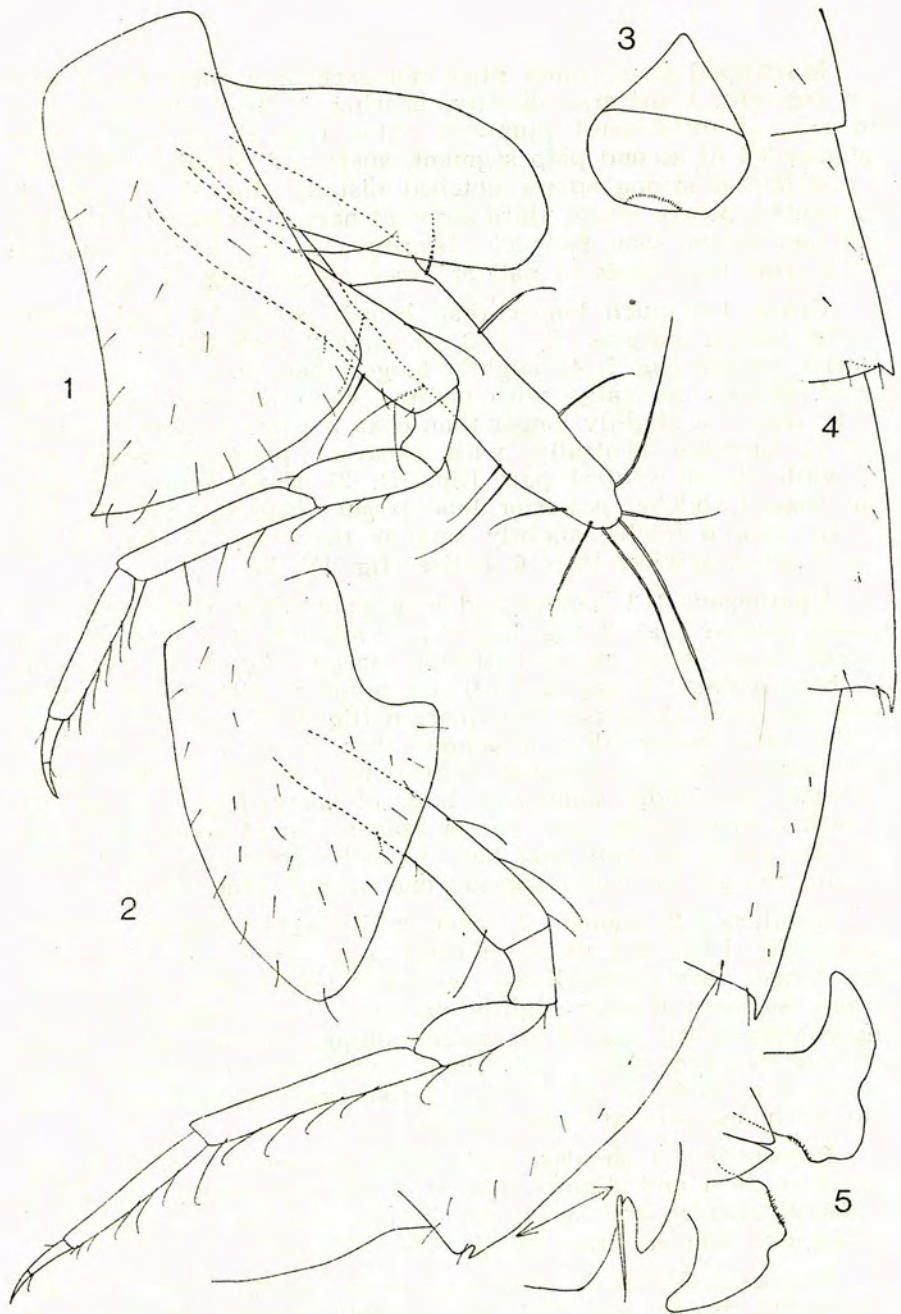


Fig. III. *Syrrhoites barnardi*, n. sp., Golfo di Napoli, female 1.9 mm: 1 = pereopod 3; 2 = pereopod 4; 3 = labrum; 4 = mesosomal segments 6-7 and metasomal segments 1-3; 5 = labium.

(fig. IV, 2, 4, 6); nail shorter than peduncle; dactyl of pereopod 5 slightly longer than segment 6, that of pereopods 6-7 nearly as long as half of segment 6 (fig. IV, 4, 5, 6).

Epimeral plates 1-2 slightly pointed, epimeral plate 3 sharply pointed and with sinusoid smooth posterior margin (fig. V, 5); ventral part of epimeral plates 2-3 with a row of strong subdistal spines (fig. V, 5).

Pleopods 1-3 with short stout peduncle bearing 2 retinacula each accompanied by 2 plumose setae (fig. II, 3); rami plurisegmented, inner ramus slightly longer than outer one.

Urosomite 1 near basis of peduncle of uropod 1 without spine (fig. V, 6). Uropod 1 linear, peduncle without ventrofacial spines, but with dorsal external row of spines and with smooth dorsointernal margin except the presence of distal spine (fig. V, 1, 6) and with one short distal tooth (fig. V, 1); inner ramus is twice longer than outer one, with strong distal spine accompanied by 3 short spines (fig. V, 1); outer ramus without lateral spines, but with one strong distal spine accompanied by 2 short spines and one subdistal spine (fig. V, 1).

Uropod 2 almost of the same length as uropod 1, with short peduncle bearing short distal tooth (fig. V, 2); outer ramus short, with row of lateral spines and one strong distal spine accompanied by 3 short spines (fig. V, 2); inner ramus is twice longer than outer one, with row of spines at both margins, distal spines absent (fig. V, 2).

Uropod 3 remarkably shorter than uropods 1-2, not reaching tip of uropod 2 (fig. V, 6); peduncle shorter than inner ramus, with distal tooth (process); inner ramus is longer than outer one, bearing one lateral spine, distal spines absent (fig. V, 3, 6); outer ramus 2-segmented, second segment reaching nearly half of first segment, smooth, without distal spine (fig. V, 3).

Telson long, reaching half of rami of uropod 3 (fig. V, 6), triangular, much longer than broad, incised nearly halfway (fig. I, 6), each lobe pointed distally, bearing one short subdistal seta at inner margin (fig. I, 6).

Coxal gills ovoid, simple, occur on pereonites 2-6 (fig. I, 4; III, 1; IV, 1, 3). Oostegites long and narrow, tapering distally, provided with marginal setae (fig. III, 1).

Male unknown.

Holotype: female 1.9 mm. Holotype is deposited in collection of Museum of Natural History in Verona, Italy.

Remarks and Affinities: *Syrrhoites barnardi*, n. sp. is rather similar to *Syrrhoites pusilla* Enequist 1950, known from Northern Atlantic. But, *S. pusilla* differs from *S. barnardi* by lon-

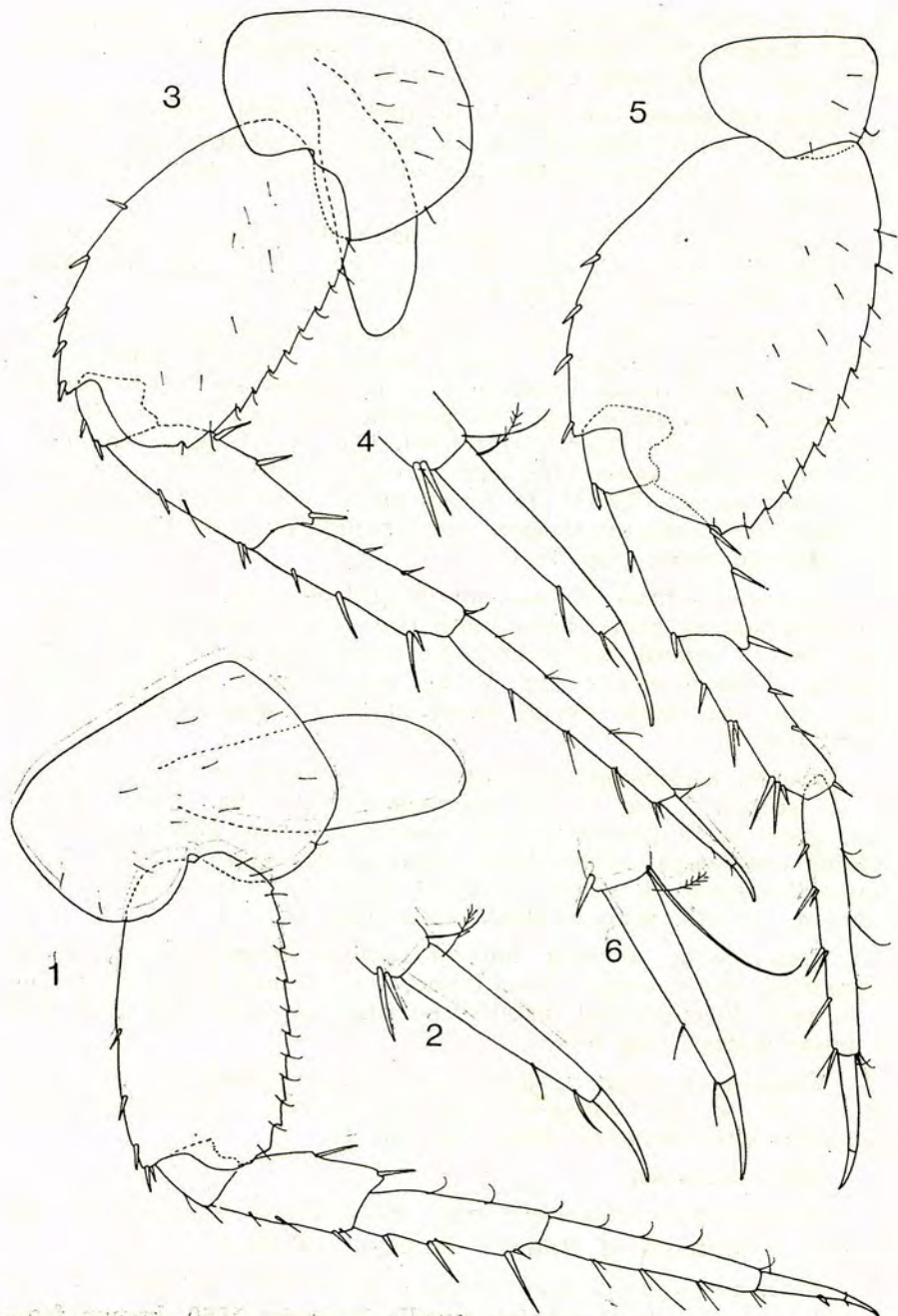


Fig. IV. *Syrrhoites barnardi*, n. sp.; Golfo di Napoli, femelle 1.9 mm: 1-2 = pereopod 5; 3-4 = pereopod 6; 5-6 = pereopod 7.

ger dactyl of pereopods 3-4 reaching the length of corresponding segment 6; dorsoposterior tooth on last metasomsegment is marginal and recurved towards head, telson is incised more than halfway, peduncular segment 3 of antenna 1 is shorter than peduncular segment 2 in female; coxa 1 in female is slightly dilated distally, coxa 3 is not dilated distally, etc.

Syrrhoites capricornia Bellan-Santini 1983 known from the NW. part of the Mediterranean Sea, W. of Sardinia (from 2720 meters depth) is known based on one male only, so that one detailed comparison with female of *S. barnardi* is rather difficult. *S. capricornia* (male) differs from *S. barnardi* (female) by telson incised over halfway, coxa 3 is with parallel lateral margins, not dilated ventrally, dorsoposterior teeth on meso-, meta- and urosomal segments are stronger, etc.

Syrrhoites cornuta Bellan-Santini 1983, known from W. of Corsica Island (on 2520 meters depth) and from mediterranean coast of Algeria (2626 meters depth), differs from *S. barnardi* by toothed urosomite 1, by coxa 3 provided with parallel lateral margins, by strongly toothed meso-, and metasomsegments, by different shape of epimeral plates, etc.

Dilated coxa 3, pointed distoanteriorly, is present also in *S. pantasma* J. L. Barnard 1972, known from Ecuador (01° 30' S, 82° 19' W, on 1363-1369 meters depth), but this species differs from *S. barnardi* by toothed urosomite 1, by finely serrate posterior margin of epimeral plate 3, by short distal segment of outer ramus in uropod 3, etc.

Ilerastroe ilergetes (J. L. Barnard 1964) is very similar to our species by numerous characters (shape of coxa 1, coxa 3, mandible palp) but it differs from *S. barnardi* by small subrounded coxa 4, poorly incised telson, etc.

Austrosyrrhoe fimbriatus (Stebbing and Robertson 1891), known from NE. Atlantic (Firth of Clyde; Irish Sea) is very similar to *S. barnardi* in almost all characters mentioned and figured by Stebbing and Robertson (1891) and by Lincoln (1979), except the mandibular molar and dorsal teeth on body.

Stebbing and Robertson (1891) mentioned that urosomite 3 (=pleon segment 6) is provided behind with a close-set row of spinules (male) and coxa 3 is provided with blunt distoanterior corner, retinacula without plumose setae; they mentioned also that palp of maxilla 1 »has on the apex five spines and one spine on the outer margin below the apex« (male).

Lincoln (1979) mentioned that in *A. fimbriatus* mandible molar is not fully dominating mandible and that pereonsegment 7 (=last mesosomal segment) and pleon segments 1-2 (=metasom-

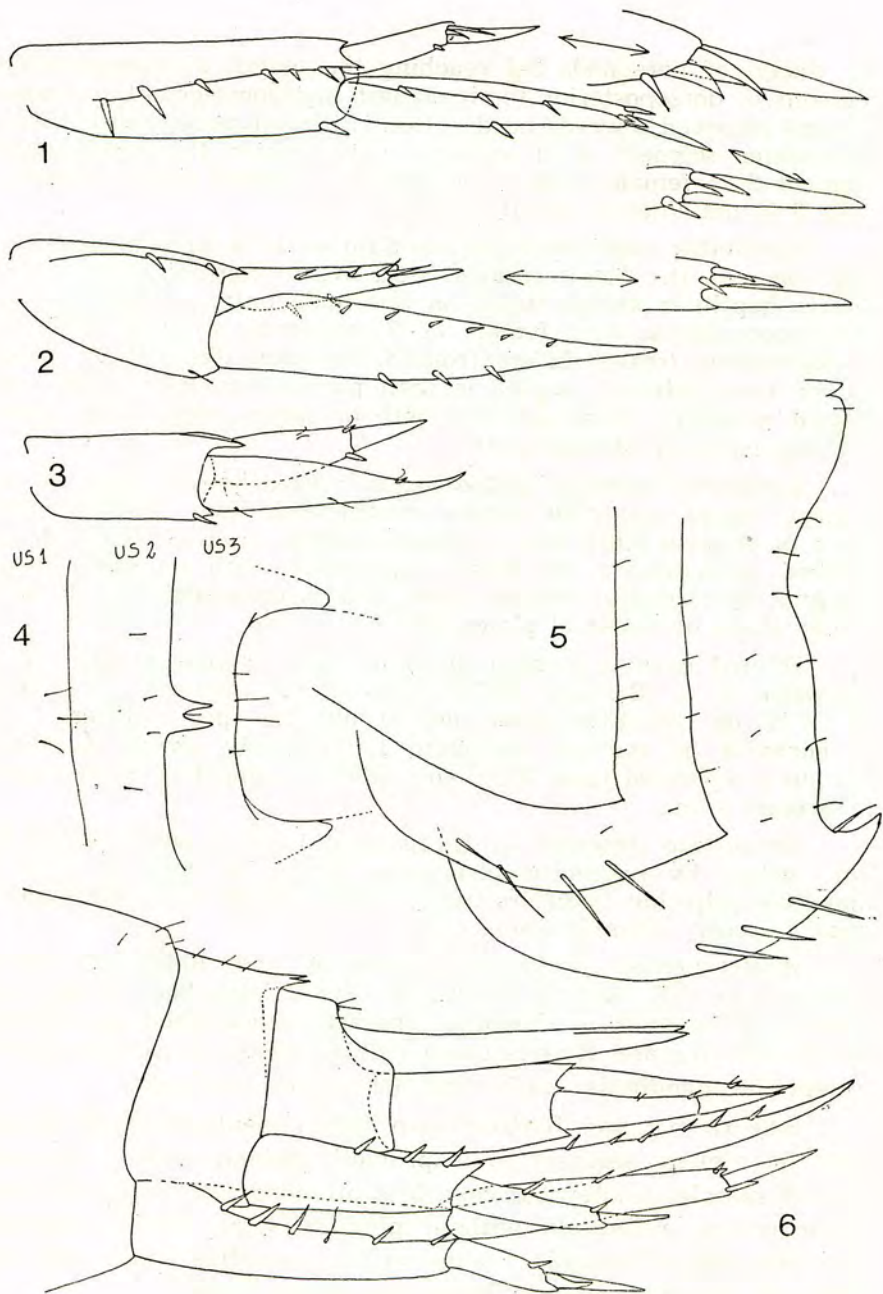


Fig. V. *Syrrhoites barnardi*, n. sp., Golfo di Napoli, female 1.9 mm: 1 = uropod 1; 2 = uropod 2; 3 = uropod 3; 4 = urosomites 1-3; 5 = epimeral plates 1-3; 6 = urosome with uropods 1-3 and telson.

segments 1-2) each with very small dorsal tooth. He figured coxa 3 with pointed distoanterior corner like that in *S. barnardi*.

Stebbing (1906) mentioned that *A. fimbriatus* has urosomite 2 in males with strong dorsal tooth; he mentioned that coxa 3 is ventroanteriorly »rather acutely produced«. In female, antenna 1 peduncular segment 3 shorter than 2, and palp of maxilla 1 with spine-like setae.

J. L. Barnard (1972) mentioned that *A. fimbriatus* is with urosomites 1-2 each with dorsal tooth; outer ramus of uropods 1-2 spinose apically.

Based on all these descriptions of *A. fimbriatus*, *S. barnardi* seems to be very similar to this species, differing from *fimbriatus* by more developed mandibular molar dominating mandible, by toothed metasomsegment 3 and by presence of 2 dorsoposterior teeth on urosomite 2. Because of small size of specimens of *A. fimbriatus* and of our species also, some characters are very difficult to observe, and some interpretations of taxonomic characters can be not correct. But at the moment, we have not enough elements to identify our species with *A. fimbriatus* or *A. septentrionalis* Stephensen 1931, and we consider our species as a new taxon, *Syrrhoites barnardi*, n. sp.

PROBLEM OF GENUS SYNOPIA DANA 1853

Genus *Synopia* established Dana (1853) for three new species: *S. ultramarina*, n. sp. and *S. gracilis*, n. sp. from tropical Atlantic, and *S. angustifrons*, n. sp. from tropical Pacific, without designation of type species of the genus.

Kossmann (1880) described *S. orientalis*, n. sp. from Red Sea.

Bovalius (1886) described two new species, *S. caraibica*, n. sp. from Carribean Sea and *S. scheeleana*, n. sp. from tropical Atlantic E. of Barbados Islands.

Stebbing (1888) redescribed and figured *S. scheeleana* Bov. based on specimens from tropic Pacific.

Stebbing (1906) synonymized *S. gracilis* with *S. ultramarina*, mentioning that the species *S. angustifrons*, *S. caraibica* and *S. orientalis* are doubtful species.

Spandl (1923) described a new species *S. variabilis*, from Red Sea; in 1924, he redescribed and figured this species more in detail.

J. L. Barnard (1965) redescribed *S. variabilis* Sp. from Micronesia (Atoll Ifaluk; Parry Island).

J. L. Barnard (1969) proposed a type-species of genus *Synopia*, *S. ultramarina* Dana.

J. L. Barnard (1972) provided a revision of family *Synopiidae*, giving a key to the species of genus *Syrrhoites*. He mentioned that molar of *S. variabilis* »may be interpreted as swollen but not grossly dominating the mandible. Since the molar is non-tritulative and the telson is uncleft, *S. variabilis* may deserve a distinct generic name«. As the exact shape of molar of all species of *Synopia* is not well known, for the moment is not possible to use this character at generic level.

Ledoyer (1979) figured some body-parts of *Synopia variabilis* and *S. scheeleana* from Madagascar.

Recently Andres (1984) described two new species of the genus *Synopia*, *S. triangula* and *S. rotunda* from central part of Northern Atlantic. Andres mentioned that mandibular molar of these two species is tritulative. But, telson is entire in both species. Single other species with entire telson is *S. variabilis*.

Discovery of these species showed the existence of two groups of species within the genus *Synopia*: one group with remarkably cleft telson (*ultramarina*, *orientalis*, *angustifrons*, *gracilis*, *carabica*, *scheeleana*) and another group with entire telson (*variabilis*, *triangula*, *rotunda*). As many other taxonomic characters of all *Synopia* species are poorly known or unknown, it was not possible to establish other taxonomic characters of these two groups, and we proposed to left these two groups on the subgeneric level, subgenus *Synopia* s. str., and subgenus *Telsosynopia*, n. subgenus.

Genus SYNOPIA Dana 1853

Syn.: *Synopia* Dana 1853: 994; Bovalius 1886: 4; Stebbing 1906: 271; J. L. Barnard 1969: 462; J. L. Barnard 1972: 50.

Type species: *Synopia ultramarina* Dana 1853.

Diagnosis: Body normal, urosomites free. Head with protuberant tip, eyes present, lateral cephalic lobes short. Antenna 1 shorter than 2. Peduncular segments 1-3 of antenna 1 progressively shorter, accessory flagellum present. Antenna 2 peduncular segment 5 shorter than 4. Labrum with slightly incised distal margin. Labium with inner lobes. Mandible with tritulative molar and toothed incisor, palp 3-segmented, second palp segment swollen, first and third segments small. Maxilla 1 inner plate with row of setae, outer plate spinose, palp 2-segmented. Maxilla 2 inner plate with facial oblique row of setae. Maxilliped inner plate small, outer plate well developed, bearing distolateral setae, palp 4-segmented, last segment small.

Coxae 1-2 longer than broad, coxa 3 enlarged, with quadrate ventroposterior lobe, coxa 4 small, pelagont. Gnathopods 1-2 simple, dissimilar: gnathopod 1 with stout segments 5-6, dactyl spine-like. Gnathopod 2 slender and longer than gnathopod 1, segments 5-6 linear, long. Pereopods 3-4 dissimilar to each other, segments often dilated. Pereopods 5-6 basic, with dilated lobed segment 2; pereopod 7 with strong posteroventral lobe, narrow.

Uropods 1-2 biramous, normal. Uropod 3 biramous, poorly unequal long, lanceolate, outer ramus 2-segmented. Telson moderate, entire or incised.

Subgenus SYNOPIA Dana 1853

Diagnosis: With characters mentioned under genus *Synopia*, except telson deeply incised (cleft).

Type-species: *Synopia ultramarina* Dana 1853 (designated by J. L. Barnard 1969).

Taxa: *angustifrons* Dana 1853, *caribica* Bovalius 1886, *gracilis* Dana 1853, *orientalis* Kossmann 1880, *scheeleana* Bovalius 1886, *ultramarina* Dana 1853.

Subgenus TELSOSYNOPIA, new subgenus

Diagnosis: With characters of genus *Synopia* except: telson entire, mandibular molar more or less tritritative.

Type-species: *Synopia variabilis* Spandl 1923.

Taxa: *rotunda* Andres 1984, *triangula* Andres 1984, *variabilis* Spandl 1923.

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SYRRHOITES BARNARDI, NOVI MORSKI AMFIPOD IZ SREDOZEMNOG MORA, SA OSVRTOM NA ROD SYNOPIA DANA (GAMMARIDEA, SYNOPIIDAE) (155. PRILOG POZNAVANJU AMPHIPODA)

Gordan S. KARAMAN

Re z i m e

U radu je opisana jedna nova vrsta morskih Amphipoda iz familije *Synopiidae*, *Syrrhoites barnardi*, n. sp., sakupljena u Napuljskom zaljevu u Italiji. Ovim se je broj vrsta ovog roda, poznatih iz Sredozemnog mora, popeo na 4: *Syrrhoites capricornia* Bellan-Santini 1983, *S. cornuta* Bellan-Santini 1983, *S. pusilla* Enequist 1950. i *S. barnardi*, n. sp. *S. barnardi* se razlikuje od ostalih mediteranskih vrsta ovog roda prisustvom horizontalnog submarginalnog trna na dorzalnoj strani trećeg metazomalnog segmenta tijela, prisustvom 2 dorzalna trna na drugom urozomalnom segmentu, kao i po zašiljenim prednjim donjim dijelom treće koksalne ploče.

Rod *Latacunga* J. L. Barnard 1972. (tip roda: *Latacunga latacunga* J. L. Barnard 1972) je veoma sličan rodu *Syrrhoites*, i razlikuje se samo po trouglastom obliku prve koksalne ploče, koja je četvrtasta kod roda *Syrrhoites*. Rod *Latacunga* sadrži vrste *L. latacunga* J. L. Bar. 1972. i *L. comanita* J. L. Barnard 1972.

Analiziran je taksonomski status roda *Synopia* Dana 1853, koji je na osnovu taksonomskih odlika pojedinih vrsta, podijeljen na dva podroda, podrod *Synopia*, s. str., i podrod *Telsosynopia*, n. podrod.

Podrod *Synopia* Dana 1853.

Dijagnoza: Ima sve odlike roda *Synopia* osim građe telzona, koji je duboko usječen.

Tip podroda: *Synopia ultramarina* Dana 1853. (određen od strane J. L. Barnard 1969).

Vrste: *angustifrons* Dana 1853, *caraibica* Bovalius 1886, *gracilis* Dana 1853, *orientalis* Kossmann 1880, *scheeleana* Bovalius 1886. i *ultramarina* Dana 1853.

Podrod *Telsosynopia*, n. podrod

Dijagnoza: Ima sve odlike roda *Synopia* osim građe telzona: telzon je cjelokrajan, mandibularni molar je više ili manje tritrativni.

Tip podroda: *Synopia variabilis* Spandl 1923.

Vrste: *rotunda* Andres 1984, *triangula* Andres 1984, *variabilis* Spandl 1923.