A NEW GENUS AND TWO NEW SPECIES OF LEPTOCHELIIDS FROM THE MARINE SHALLOW WATERS OF INDONESIA (CRUSTACEA: TANAIDACEA: TANAIDOMORPHA)

MODEST GUȚU

Abstract. Neoleptochelia javaensis n. g., n. sp. and Leptochelia helenae n. sp. from the marine shallow waters of the Indonesian Archipelago are described and illustrated. By the big length of male cheliped the genus Neoleptochelia n. g. is similar to the species of the Leptochelia-minuta “group”. The main characteristics of the new genus consist in the size and configuration of uropod (short and thick), the length of pereopod II dactylus (shorter than unguis) and of the distosternal seta of pereopods III and IV carpus, in females (longer than propodus and dactylus combined). Although the females of L. helenae n. sp. are similar to those of L. daggi Bamber, 2005, the males of these two species are totally different. So, while the male cheliped of L. daggi is similar to that of the species included in the Leptochelia-dubia “group”, that of the species L. helenae n. sp. is similar to the Leptochelia-minuta “group”.

Résumé. On a redécrit et illustré Neoleptochelia javanensis n. g., n. sp. et Leptochelia helenae n. sp., des eaux marines de petite profondeur de l’Archipel Indonésien. Par la grande longueur du chélipède du mâle le genre Neoleptochelia n. g. ressemble aux espèces du „groupe” Leptochelia-minuta. Les principales caractéristiques du nouveau genre consistent dans les dimensions et la configuration de l’uropode (court et gros), la longueur du dactyle du périmorphe II (plus court que l’unguis), et dans la grandeur, chez les femelles, de la sète disto-sternale du carpe des périmorphe III et IV (plus longue que le propode et le dactyle, mesurés ensemble). Bien que les femelles de L. helenae n. sp. soient ressemblantes à celles de L. daggi Bamber, 2005, les mâles des deux espèces sont complètement différents. Ainsi, tandis que le chélipède du mâle de L. daggi ressemble à celui des espèces comprises dans le „groupe” Leptochelia-dubia, celui de l’espèce L. helenae n. sp. est semblable à celui du „groupe” Leptochelia-minuta.

Key words: Tanaidacea, Indonesia, Neoleptochelia javanensis n. g., n. sp., Leptochelia helenae n. sp.

In the personally collected material from marine shallow waters of the Indonesia Archipelago, on the occasion of the expedition of “Grigore Antipa” National Museum of Natural History from Bucharest (1991), I identified several tanaidomorph tanaidaceans, new to science, out of which a genus and two species new to science of the family Leptocheliidae were described in the present paper.

Remarks on the terminology. For avoiding confusions, I named the specimens with morphologic features characteristic to females (with or without eggs or oostegites but with five-articulated antennules together with those with four-articulated antennules), „specimens with female features”, considering that “terminal female”, “final pre-male neuter” and “pre-male protogynic neuter” (cf. Heard et al., 2004: 100, 101), or “pre-adult male” (cf. Bamber, 2010: 293) are not according to reality. As I mentioned in other paper (Guțu, in press.), I think that a female with eggs or oostegites which has five-articulated antennule can’t be named “terminal female”, “final pre-male neuter”, “pre-male protogynic neuter” or “pre-adult male”. On the other hand, the pereopods II-VII from my descriptions are the same to pereopods I-VI from the papers of other authors.
Family Leptocheliidae Lang, 1973

The comments from the older or newer papers (Lang, 1973; Larsen & Rayment, 2002; Bird & Larsen, 2009; Bamber, 2005, 2008, 2010; etc.) on the family Leptocheliidae (or on some of its genera and species) point out both the multitude of the contradictions and confusions present in the systematic of these tanaidaceans, and the difficulty of a correct identification of some taxa according only to the external morphology, not infrequently deceitful. The presence of some almost identical features in different species, in some cases (taken separately for males and females, considering the strong dimorphism) often concretized by wrong identifications and synonymysations. At the same time, in other circumstances, the absence of some obvious common features between the two sexes of the same species led to the classification of the males and females in different genera (in this respect, the Catalogue of Tanaidaceans, published by Sieg in 1983, includes numerous examples). Unfortunately, the above-mentioned features together with the exaggerated polymorphism of the males are only a part of the causes which generated uncertainties, some of them with negative consequences on the state of some genera. As it results from the phylogenetic study signed by Bird & Larsen (op. cit.:154), half of the genera initially classified in family Leptocheliidae are considered uncertain. More than that, according to my own observations, I reached the conclusion that not all genera considered certain deserve this statute. On the other hand, the discovering of a combination of different morphological features in a new species (which I classified in the genus *Neoleptochelia* n. g.) underlines the presence of an unimagined diversity at the family level. Although the type-species of the new genus, *Neoleptochelia*, would have been classified in genus *Leptochelia* ("Leptochelia-Gruppe 1", cf. Lang, op. cit., or "Leptochelia minuta-Gruppe", cf. Sieg, op. cit.), due to the shape of the male cheliped (long and thin), the presence of other features determined me to classify it in a new genus. In conclusion, I think that the current diagnosis of the family Leptocheliidae is not according to reality, in the wild.

Genus *Leptochelia* Dana, 1849

Observations on thousands of tanaidacean specimens of the genus *Leptochelia* made me to understand how “deceitful” the features of this genus are. In this respect, an example is that of the species *Leptochelia daggi* Bamber, 2005 and *L. helenae* n. sp., whose females, as a matter of fact very similar, were associated to some completely different males (aspect minutely commented further on). Correlating the data from literature on the setulation of the pleonites in the species *L. daggi* with the observations made for *L. helenae* n. sp. (but also for other species), I reached the conclusion that this morphological feature (although in some situations it is inconstant, being influenced by age), can be identical in different species but, at the same time, it can be different in some species of the genus *Leptochelia*, being a good informative criterion in species identification (in some cases, at least).

Different features between the males of the two groups of *Leptochelia* ("Leptochelia-Gruppe 1" and “Leptochelia-Gruppe 2”, cf. Lang, op. cit., or "Leptochelia minuta-Gruppe" and "Leptochelia dubia-Gruppe", cf. Sieg, op. cit.) suggest, in my opinion, the presence of at least two genera, for which the specialists haven’t succeeded in discovering characteristic features for females, too. I say “at least two genera” being influenced by the discovering of the species which was the base of the
description of the genus *Neoleptochelia* n. g. and which should have been included in the *Leptochelia-minuta* “group” (by the configuration of male cheliped, as I have already said).

*Leptochelia helenae* n. sp.

(Figs 1-4)

*Studied material*: 223 specimens with female features (36 having oostegites, eggs or remains of marsupium) and 25 adult and subadult males, collected by author, as follows:

- 176 specimens with female features (24 having oostegites, eggs or remains of marsupium) and 22 adult and subadult males, Celebes Sea, Bunaken Island, about 01°37' N – 124°46' E, 1-6 m depth, 16-20 April 1991, provided from the Stations No. 2, 5, 6, 9, 13, 14, 17, 20, 23, 25, 30, 31, 32 and 35 (cf. Gutu, 1997);
- 36 specimens with female features (8 having oostegites, eggs or remains of marsupium) and 3 adult males, Makassar Strait, coast of Kalimantan (Borneo) Island, in front of Bontang locality, about 00°05' N – 117°33' E, dredging on bottom of sand of medium grains, covered with *Thalassia*, 2 m depth, 18 May, 1991;
- 11 specimens with female features (5 having oostegites, eggs or remains of marsupium), Java Sea, Pari Island (northwestern of Jakarta, Java Island), about 05°51' S – 106°35.5' E, dredging on bottom with coraline sand, covered with rare algae, 1.5 m depth, 10 March, 1991.

*Type-material*, preserved in the Collections of the “Grigore Antipa” National Museum of Natural History, Bucharest (Romania), as follows:

*Holotype*, female with eggs, from Bunaken Island, Station 27, No. 250463;
*Allotype*, adult male, from Bunaken Island, Station 27, No. 250464;
*Paratypes*: 5 females with oostegites, eggs or remains of marsupium, No. 250465, 33 specimens with female features, No. 250466, 5 adult and subadult males, No. 250467, all from the Celebes Sea (Bunaken Island, Station 27), 1 female with eggs, No. 250468, 3 specimens with female features, No. 250469 and 2 adult males, No. 250470, also from the Celebes Sea (Bunaken Island, Station 35), 8 females with oostegites or eggs, No. 250471, and 3 adult males, No. 250472, from the Makassar Strait (in front of Bontang), and 5 females with oostegites or eggs, No. 250473, from Java Sea (Pari Island).

*Description of the female with oostegites, paratype*

*Body* (Fig. 1 A), more or less dorsoventrally flattened, approximately seven times longer than the maximum width of carapace; standard length, 3 mm.

*Carapace*, a little longer than the first two pereonites combined but shorter than any other two ones, with three short setae on sides. Rostrum very short. Ocular lobes well defined, pigmented (Fig. 1 C).

*Pereon*, about 3.2 times longer than carapace; first pereonite, shortest, 2.2 wider than long; second pereonite 1.5 times longer than the first one; third pereonite a little longer than the second one, but shorter than following pereonite; fourth and fifth pereonites equal among them, longest; last pereonite as long as second one; each of the first three pereonites with one small seta in anterolateral corners; last three pereonites with two short setae on sides.
Pleon, as long as two last pereonites, with five short pleonites and a pleotelson. Each pleonite with five or six simple setae on sides (Fig. 1 B). Pleotelson, as long as two pleonites; caudal margin with two broom and four simple setae (two of them situated medio-caudally), and one simple seta on sides.

Antennule (Fig. 1 A, C), as long as first two pereonites. First peduncular article, about four times longer than its median thickness; mediadorsally and distosternally with one simple seta, and distosternally with two short broom setae. Second article, three times shorter than the first one, with two distal setae. Third peduncular article thinner than the second, but slightly longer than that, ended in one aesthetasc and two simple setae. Fourth article (flagellum), very small (tuberculiform), with three long simple setae (the longest being as long as first peduncular article).

Antenna (Fig. 1 C), a little shorter than antennule, six-articulated. First article short, naked. Second article, slightly longer than its thickness, with one stout, but relatively short, distosternal spine and one distotergal seta. Third article, as long as the second one but slightly thinner than that, with one distotergal spine (as long as distosternal spine of second article). Fourth article thin, as long as first two preceding ones, with two middorsal and three distal setae (two of them much longer). Fifth article, approximately as long as third one, with two distal setae. Sixth article very short (tuberculiform), ended in four long simple setae, the longest one being a little shorter than the antenna length.

Mandibles and maxillule as in other species of the genus (Fig. 1 D-F).

Maxilliped (Fig. 1 G) with a well developed basis and four-articulated palp. Basis, 1.8 times longer than its maximum width, with five distal simple setae, three of them a little longer than the first two palp articles. Palp longer than basis; first article short and thick, naked; second article with one distolateral and four distoinner setae, and many setulae on the inner margin; third article, about as long as previous article but thinner than that, with six long setae on the inner margin and another one much shorter, distoinnerly; fourth article, shorter and thinner than third one, with six ciliate setae (two distal and four, shorter, on inner margin). Endite with one long distoexternal ciliate seta and three, unequal, short and thick formations.

Cheliped (Fig. 1 H, I) as in other females of the genus. Basis, 1.7 times longer than maximum width, with one distotergal seta, near the proximal end of carpus. Merus triangular, with one long and two very short setae on sternal margin. Carpus, longer than basis, and approximately two times longer than its thickness; tergal margin with about nine setulae; distosternally with one short and two long simple setae. Propodus, narrower than carpus, with a row of some short ciliate setae near the dactylus joint on the inner face (Fig. 1 I); fixed finger thick, shorter than palm, with two and three setae on the outer and inner margins, respectively; unguis curved, relatively small. Dactylus curved, as long as fixed finger, with one proximotergal seta; unguis short and thick.

Pereopod II (Fig. 2 A) much longer than following pereopods. Basis, 3.8 times longer than its median thickness, with one simple and one broom seta, proximotergally. Ischium small, with one simple seta. Merus, 2.5 times shorter than basis, naked. Carpus, about as long as merus, with four distal setae, one of them longer. Propodus, as long as merus and carpus combined, with four distal setae, two of them ciliate. Dactylus slender, with a fine proximotergal seta; together with unguis, a little longer than propodus; unguis shorter than dactylus.
Pereopod III (Fig. 2 B) 1.7 times shorter than preceding pereopod. Basis, 2.7 times longer than its maximum thickness; proximotergally with one simple and two broom setae. Ischium very short, with two sternal simple setae. Merus, 2.3 times shorter than basis, with one distosternal spine and one distotergal seta. Carpus, slightly shorter than merus; distally with four very small spines and two unequal simple setae, the distosternal one being a little longer than half of propodus length; sternal margin with some spinules. Propodus, longer than merus or carpus, but slightly thinner than those, with one distosternal spine, and two distotergal setae (one of them, ciliate); sternally with some spinules. Dactylus short, thicker proximally, with a short seta; unguis small, curved.

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Fig. 1 – *Leptochelia helenae* n. sp., female, paratype: A, body, dorsal; B, caudal part of body, dorsal; C, antennule and antenna; D, right mandible, distal part; E, pars incisiva and lacinia mobilis of left mandible; F, maxillule; G, maxilliped; H, right cheliped, outer face; I, left cheliped, inner face.
Pereopod IV (Fig. 2 C) relatively similar to pereopod III, but slightly shorter than that. Propodus with only one distotergal simple seta.

Pereopod V (Fig. 2 D) about as long as pereopod IV. Basis inflated, two times longer than its median thickness, with three proximotergal broom setae. Ischium with two sternal setae. Merus thin, three times shorter than basis, with one distosternal spine. Carpus approximately as long as merus; distally with three spines and one simple seta. Propodus as long as carpus; distally with three spines and two ciliate setae. Dactylus with one proximal seta and many setulae on sternal margin.

Pereopods VI (Fig. 2 E) and VII (Fig. 2 F) similar to pereopod V, excepting some features. Pereopod VI propodus a little longer than that in preceding one. Pereopod VII propodus ended in seven setae, six of them ciliate and shorter.
Pleopods (Fig. 2 G) well developed, biramous, in five pairs. Endopod with one midinner plumose seta and other 15, also plumose, on outer margin. Exopod, as long as exopod, with about 25 long plumose setae on outer margin.

Uropod (Fig. 1 A, B) biramous. Peduncle relatively small, a little shorter than the first two endopod articles, with three distoinner setae. Exopod uniarticulated, with one midouter and two terminal setae. Endopod, six-articulated, filiform, about as long as first four pleonites; each article with one to three setae, excepting the last one which has one broom and four long simple setae.

Fig. 3 – *Leptochelia helenae* n. sp., male, paratype: A, body, dorsal; B, caudal part of body, dorsal; C, antennule and antenna, lateral; D, left cheliped, outer face; E, distal part of propodus palm and proximal parts of fixed finger and dactylus, inner face.
Description of adult male, paratype

Body (Fig. 3 A), as in other males belonging to the “group” Leptochelia-minuta, approximately 5.8 times longer than carapace width; length, 3.2 mm.

Carapace narrower in anterior half; with two setae on sides. Rostrum short, rounded. Ocular lobes large, well defined, pigmented.

Pereon, two times longer than carapace. First three pereonites, much shorter than carapace, with one anterolateral seta, and the last three ones (1.7 times longer than previous three ones) with two short setae on sides.

Pleon, as long as carapace; each pleonite with 4-5 setae on sides (Fig. 3 B).

Antennule (Fig. 3 A, C) as long as carapace and pereon combined; first peduncular article slender, longer than carapace and first pereonite, ended in two short setae, one of them simple; second article, 1.5 times shorter than the first one, with two distal simple setae; third peduncular article about five times shorter than the second one; flagellum, about as long as second peduncular article, ten-articulated, the last article being very small (tuberculiform); each article with 3-5 relatively short aesthetases.

Antenna (Fig. 3 C) six-articulated, very short, only a little longer than the half of the first peduncular article of antennule; first article short, with one small midlateral seta; second article with two setae (one of them tergal and another one, situated midlaterally), and one distotergal spine; third article slightly smaller than the preceding one, with one distotergal seta; fourth article thin, about as long as first three ones, with some simple and broom setae in distal half; fifth article, thinner and shorter than the preceding one, with two distal setae; sixth article, tuberculiform, with four simple setae, three of them being very long (about as long as fourth article).

Mouth parts atrophied.

Cheliped (Fig. 3 D) slender, much longer than the body length. Basis very short, about 1.5 times longer than maximum width. Merus small, with six simple setae. Carpus slender, longer than carapace and first four pereonites measured together, and about ten times longer than its median thickness, with nine tergal and three distosternal short setae. Propodus, approximately as long as carpus; palm, longer than fixed finger, with a row of about 17 setulae near of dactylus joint, on the inner surface (Fig. 3 E); fixed finger thin and very long (a little shorter than propodal palm), with four proximal denticles (the last one much larger) and three distal setae on the inner margin, and six setae on the outer margin; unguis small, undefined. Dactylus, also thin and long, curved distally, with three proximal denticles (the latest bigger) and ten spinules on the inner margin; unguis small, undefined.

Pereopods II-VII, relatively similar to the same of other species of the genus, as they are illustrated in the figure 4 A-F.

Pleopods (Fig. 4 G) as in females, excepting the number of plumose setae, which are in number of 19 and 27 on outer margin of endopod and exopod, respectively.

Uropod (Fig. 3 A, B) more setosae than that in females. Peduncle short (as long as exopod and longer than the first two endopod articles), with some distal simple setae. Exopod uniarticulated, as long as first two articles of endopod, with one midlateral and two terminal setae. Endopod six-articulated, filiform, as long as three pleonites, with four to six simple setae on each article.

Remarks. Many males have the antennule flagellum with more or less articles than the described specimen. The cheliped of subadult males (of small sizes) can
Fig. 4 – *Leptochelia helenae* n. sp., male, paratype: A-F, pereopods II-VII, respectively; G, pleopod I.
have a variable number of denticles on inner margins of fixed finger and dactylus. Also, the pleonites of subadult males can have only three setae on sides.

**Etymology.** I named this species for the memory of an ex-colleague, who went into eternity many years ago, Mrs Elena Dumitrescu, polychaetologist, who distinguished, among others, by a special noble state of mind.

**Type locality.** Bunaken Island (Celebes Sea).

**Geographical distribution:** Celebes Sea, Makassar Strait and Java Sea.

**Remarks.** By the setulation of pleonites and other morphological features, *Leptochelia helenae* n. sp. is similar to *L. daggi* Bamber, 2005. The two species differ by the number of the articles of uropod endopod (six in the new species, comparatively to five, only). Borrodaile (1900) also described a female (*Leptochelia* sp.) similar to those two mentioned (by the setulation of pleonites), from the South Pacific. Borrodaile’s species has five-articulated uropod endopodite, as *L. daggi*.

An important contradiction observed in the two species, *L. daggi* and *L. helenae* n. sp., is that regarding the morphological features of the males. While the males of the *Leptochelia-dubia* “group” correspond to the females of *L. daggi* (cf. Bamber, 2005, fig. 39 A-C), as regards the species *L. helenae* n. sp. the males (Fig. 3 D) resemble those of the *Leptochelia-minuta* “group”. The great difference between the males of the two species makes me to ask myself: is the difference between the males of the two species real?

The single criterion on which I based when I made the association between females and males of *L. helenae* n. sp. was the setulation from the level of the pleonites. I mention that in the same stations (from Bunaken Island and Makassar Strait) I have also found males of *Leptochelia* belonging to other species (from both “groups”, *L.-dubia* and *L.-minuta*), together with *L. helenae* n. sp., but never with more than two setae on the first four pleonites, as in the adult and subadult males of *L. helenae* n. sp. As regards the males of *L. daggi*, the setulation of the pleonites can be deduced only from illustration (Bamber, 2005, fig. 39 B), and not from description. More than that, Bamber (2005: 691) specifies that the male of *L. daggi* resemble that of *L. aff. savignyi* (sensu Bird & Bamber, 2000). Or, according to the illustration presented by the two authors, it results that each pleonite has only one seta on sides. The contradiction between the male cheliped configuration in the two species (*L. helenae* n. sp. and *L. daggi*), combined with that generated by the setulation of the pleonites from Bamber’s (2005) description adds to others, thus amplifying the confusions developed at the genus level. From the same geographic area, also Bamber (2005: 697-699) described a new species (*L. vimesi*), basing on a single male (of the *L.-minuta* “group”, as the male of *L. helenae* n. sp.), also ignoring the setulation of the pleonites. I don’t exclude the possibility that, in fact, this male to belong to the species *L. daggi*.

Leaving aside the setulation of the pleonites, the males of *L. helenae* n. sp. differentiate from those of the *Leptochelia-minuta* “group” by the number of the articles of the uropodal expodite (one, in the new species in comparison with two in *L. minuta* Dana, 1852) or of the endopodite (six, in comparison with five in *L. tenuicula* Makkaveeva, 1968 and *L. vimesi* Bamber, 2005), by the length of the antennules (longer than the body in *L. longimana* Shino, 1963 and *L. mirabilis* Stebbing, 1905) and by the length of the first article of the antennules (three times longer than the second article in *L. erythraea* in comparison with 1.5 times in the new species).
Another aspect which I would like to mention is that of the large number of males (in comparison with that of the females) found in the studied material, in contrast with what it is already known from the data presented by different authors when describing other species of *Leptochelia*. A shocking example is that mentioned by Ishimaru (1985), who identified only two males of *L. itoi*, in a number of 6,500 specimens. As regards the species *L. helenae* n. sp., more than 11% of the studied specimens were males.

**Genus *Neoleptochelia* n. g.**

*Type-species: Neoleptochelia javaensis* n. sp.

**Diagnosis (female).** Body long, slightly dorsoventrally flattened. Eyes present, pigmented. Pleon with five free pleonites and a pleotelson, each pleonite having two short setae on sides. Antennule four-articulated, the last article being very small (tuberculiform). Antenna with six articles: second article, short and thick, with one distotergal and distosternal spine; third article also short and thick, with one robust but short distotergal spine; sixth article tuberculiform. Mandibles with strong pars molaris, ended in some acute denticles; left mandible with well developed lacinia mobilis. Maxillule with eleven strong spines; palp, ended in two long setae. Maxilliped basis with some distal long simple setae; endite with one long distoexternal seta and three short and thick setiform formations on distal side. Pereopod II slender; propodus, longer than merus, carpus or dactylus, with some distal simple setae; dactylus shorter than its unguis. Pereopods III and IV carpus with one very long distosternal simple seta (longer than propodus and dactylus, combined). Pereopods V-VII basis inflated. Pleopods biramous, in five pairs. Uropod biramous; basal article large, about as long as first four articles of endopod; exopod very short; endopod with five short and thick articles.

**Male.** Eyes bigger than those in female. Antennule multiarticulated; first two peduncular articles slender, about as long as carapace and first three pereonites (measured together); second article 1.5 times shorter than the first one. Mouth parts atrophied. Cheliped longer than the body length; carpus slender, longer than antennule peduncle; propodus, as long as carpus, with thin and very long fixed finger; dactylus also slender and long. Pleopods and uropods as in female.

**Etymology.** From the Greek *neos*, “new”, and *Leptochelia*.

**Grammatical gender,** feminine.

**Remarks.** As I asserted before, due to the numerous morphological features, *Neoleptochelia* n. g. resembles the species of the genus *Leptochelia* classified (by the configuration of the male cheliped, thin and very long) in “*Leptochelia-Gruppe I*” (cf. Lang, op. cit.) or ”*Leptochelia minuta-Gruppe*” (cf. Sieg, op. cit.). In spite of this, after a detailed analysis, it was observed (both in females and in males) the presence of three important differences at least between the new genus and the species of the *Leptochelia minuta* “group”. First of all, it is about the size and the configuration of the uropods. So, while the species of the genus *Leptochelia* (whether they are included in *Leptochelia dubia-Gruppe* or *Leptochelia minuta-Gruppe*) have the uropod peduncle relatively short (almost as the first two or three articles of the uropod endopod, figs 1 B, 3 B), in the type-species of the genus *Neoleptochelia* n. g. the mentioned peduncle is very big (being as long as the four articles of the endopod, figs 5 B, 7 B). In addition, the uropod endopod in the species of *Leptochelia* is filiform (each article being more longer than thick, figs 1 B, 3 B) while in *Neoleptochelia* n. g. the filiform aspect is much diminished by its shortness.
(at least the first articles being more thicker than long, figs 5 B, 7 C). Also, the shorter length of the pereopod II dactylus (or pereopod I according to several tanaidologists) in comparison with its unguis (Fig. 6 A) is also characteristic to the genus *Neoleptochelia* n. g. Usually, in the species of the genus *Leptochelia* is vice versa (Fig. 2 A).

Another obvious feature, which occurs this time only in the females of the new genus, is the presence of a very long distosternal seta (longer than the propodus and dactylus measured together, fig. 6 B, C) on the carpus of the pereopods III and IV (or II and III, according to other specialists).

Knowing how deceitful are the morphological features of the Leptocheliidae, I do not exclude the possibility that the combination of features, which is the base of the description of the genus *Neoleptochelia* n. g., to be an unwished “trap”, as in the case of the genus *Hargeria*, described by Lang (op. cit.), summarizing only to this example.

**Neoleptochelia javaensis** n. sp.

(Figs 5-7)

*Studied material*: 52 specimens [14 females with eggs, oostegites or remains of marsupium, 35 specimens with female features (2 having five-articulated antennule) and 3 males], collected by author, as follows:

- 26 specimens [11 females with oostegites, eggs or remains of marsupium, 12 specimens with female features and 3 males (conserved in bad conditions)], Java Sea, Pari Island (northwestern of Jakarta, Java Island), about 05°51’ S – 106°35.5’ E, dredging on bottom with coraline sand, without vegetation, 2.5 m depth, 13 March, 1991;
- 23 specimens [2 females with oostegites, eggs or remains of marsupium and 21 specimens with female features (2 having five-articulated antennule)], Makassar Strait, coast of Kalimantan (Borneo) Island, in front of Bontang locality, about 00°05’ N – 117°33’ E, dredging on bottom of medium sand, without vegetation, 3 m depth, 18 May, 1991.

*Type-material*, preserved in the Collections of the “Grigore Antipa” National Museum of Natural History, Bucharest (Romania), as follows:

*Holotype*, female with eggs, from Java Sea, No. 250489;

*Allotype*, adult male (bad conserved), from Java Sea, No. 250490;

*Paratypes*: 10 females with oostegites, eggs or remains of marsupium, No. 250491, 12 specimens with female features, No. 250492, 2 males (bad conserved), No.250493, all from the Java Sea, and 5 females with oostegites, eggs or remains of marsupium, No. 250494, 11 specimens having female features (with four-articulated antennule), No. 250495 and 2 specimens having female features (with four-articulated antennule), No. 250496, from Makassar Strait.

*Description of the female with oostegites, paratype*

*Body* (Fig. 5 A), slightly dorsoventrally flattened, 7.7 times longer than the carapace width; standard length, 3.2 mm.

*Carapace*, a little longer than the first two pereonites, with two short setae on sides. Rostrum very small. Ocular lobes well defined, pigmented.

*Pereon* 3.2 times longer than carapace. First pereonite (1.7 wider than long) shortest, and the fourth one (approximately as long as wide), longest. Second, third
and sixth pereonites (1.5 times shorter than broad) about equal among them, a little shorter than the fifth one. Each pereonite with one small seta in anterolateral sides.

Pleon, as long as fourth and fifth pereonites combined, with five short but wide pleonites and a pleotelson (as long as two pleonites). Each pleonite with two small lateral setae. Pleotelson with two anterolateral, four posterodorsal and two caudal short setae (Fig. 5 B).

Antennule (Fig. 5 C), four articulated, shorter than the carapace. First article, 3.5 times longer than its thickness, with three simple and six broom setae in last half. Second article, 3.1 times shorter than the first one but thinner than that, with two distal setae. Third article, a little longer than the previous one, with one distal seta.
Fourth article (flagellum), very small (tuberculiform), with one aesthetasc and four setae, two of them as long as first peduncular article.

Antenna (Fig. 5 C) with six articles, first three shorter than the following two ones. Second article with one distotergal fine and one distosternal stout spine. Third article, slightly shorter than the second one, with one distotergal robust spine (shorter than any of previous article). Fourth article, 4.5 times longer than its thickness, with two midtergal short setae (one of them simple), and one short broom and three long simple setae, distally. Fifth article, two times longer than the preceding one but a little longer than the third article, with two distal simple setae. Sixth article tuberculiform, with six unequal simple setae, one of them as long as first four articles.

Labrum (Fig. 5 D) well developed, typical of genus, as in drawing.

Mandibles (Fig. 5 E, F) strong. Pars molaris thick, denticulated distally. Pars incisiva of right mandible with crenulate outer margin and two small denticles in top. Pars incisiva and lacinia mobilis of left mandible as in drawing (Fig. 5 F).

Maxillule (Fig. 5 G) with eleven strong spines, distally, and setose margins; palp long and thin, ended in two long simple setae.

Maxilliped (Fig. 5 H) well developed. Basis, 1.7 times longer than maximum width, ended in six simple setae, five of them longest than the first two articles of palp. Palp, four-articulated; first article naked, shortest; second article with one distoexternal (short) and four (long) distoinner simple setae; third article as long as previous one, with one short, and six long setae, distoinnerly and along of inner margin, respectively; last palp article with seven setae. Endite, typical of genus, having one long seta and three spiniform formations on the distal margin, and three forked setae distoinnerly.

Epignath (Fig. 5 I) curved, long and thin, setose distally.

Cheliped (Fig. 5 J) as in females of the genus Leptochelia. Basis 1.5 times longer than its maximum width. Merus small, triangular, with three sternal setae. Carpus, thicker distally, about 1.2 times longer than basis, with three distosternal setae and eight tergal setulae. Propodus (together with fixed finger), approximately as long as basis, with a row of six inner setae near the dactylus joint; fixed finger with three and two setae on the inner and outer margins, respectively; claw small. Dactylus curved, with one proximotergal seta; claw slightly longer than that in propodus.

Pereopod II (Fig. 6 A) slender, longer than following ones. Basis, 3.5 times longer than its thickness, with one broom and one simple seta, proximotergally. Ischium short, with one sternal seta. Merus, two times shorter than basis and two times longer than its thickness, with one distosternal well developed and one distotergal very small seta. Carpus, a little shorter than merus, with four distosternal setulae and two distotergal setae. Propodus slightly thinner than carpus and 1.6 times longer than that, with a transversal row of setulae and four long setae, distally. Dactylus (and its unguis) a little shorter than propodus, having a long proximotergal ciliate seta; unguis curved, acute in tip, 1.5 times longer than dactylus.

Pereopod III (Fig. 6 B) basis ticker distally, with two broom and one simple seta, mediotergally. Ischium very short, with one small distosternal seta. Merus, 2.5 times shorter than basis and 1.5 times longer than its thickness, with one small distosternal spine. Carpus, slightly shorter than merus, with about seven sternal spinules and one very long distosternal simple seta (longer than propodus and dactylus, combined); distotergally with one relatively short seta. Propodus, 1.5 times longer than carpus, with a distotransversal row of setulae and two distotergal
Fig. 6 – Neoleptochelia javaensis n. g., n. sp., female, paratype: A-F, pereopods II-VII, respectively; G, pleopod I.
setae, one of them apparently ciliate; sternally with four setulae and one distal short spine. Dactylus, thicker at basis, with one sternal seta; unguis small.

**Pereopod IV** (Fig. 6 C) relatively similar to previous pereopod but a little shorter than that. The main difference consists in the presence of only one distotergal simple seta on propodus.

**Pereopod V** (Fig. 6 D) as long as pereopod IV. Basis inflated, 1.6 times longer than thick, with one sternal broom seta. Ischium very short, with one sternal seta. Merus, short and thick, with one small distosternal spine. Carpus, as long as merus, ended in two furbate spines and one short seta. Propodus, a little longer than carpus; distally with two sternal small spines, three transversal rows of setulae, and one tergal furbate spine and two ciliate setae.

**Pereopod VI** (Fig. 6 E) similar to preceding one, but a little bigger than that.

**Pereopod VII** (Fig. 6 F) relatively similar to pereopod V, the main difference consisting in distotergal setae of propodus, which are in number of five, three of them being ciliate.

**Pleopods** (Fig. 6 G) in five pairs, with two long and narrow rami (about three times longer than broad). Endopod with one median long plumose seta on the inner margin and 13-14, also plumose, on the outer margin, the proximal and apical ones being much thicker and shorter than other setae. Exopod outer margin with 22-23 plumose setae, the proximal one being much thicker than others.

**Uropod** (Fig. 5 A, B) short and thick, biramous. Basal article large. Exopod unarticulated, as long as first endopod article, with one midouter and two terminal simple setae. Endopod, shorter than pleotelson length and only a little longer than peduncle, with five short and thick articles, the first, third and fifth ones having four simple setae, excepting three terminales, which are much longer.

**Partial description of male, allotype**

**Body** (Fig. 7 A) dorsoventrally flattened, approximately 5.8 times longer than maximum width of carapace; standard length, 2.8 mm.

**Carapace**, about 1.4 times longer than broad or than first three pereonites, narrower behind ocular lobes, having one short seta on sides (Fig. 7 B); rostrum small, rounded anteriorly; ocular lobe well defined, with pigmented eyes.

**Pereon** two times longer than carapace; first and second pereonites equal, are shortest (each of them 4.8 times shorter than wide); third and sixth pereonites equal, each of them being a little longer than the first or second pereonite; fourth and fifth pereonites also equal between them, longest.

**Pleon**, about as long as carapace, with five short, but broad pleonites, and a pleotelson, the latest approximately as long as last two pleonites; caudal margin with four short setae (Fig. 7 C).

**Mouth parts** reduced (atrophyed).

**Antennule** (Fig. 7 A) as long as carapace and first five pereonites combined. Peduncle three-articulated; first article thin (ten times longer than its median width), longer than carapace, with two short distal setae; second article also thin (1.6 times shorter than the first one) ended in two setae; third article very short (seven times shorter than the first one). Flagellum, as long as last two articles of peduncle, eight-articulated, each article having three or four short aesthetascus.

**Cheliped** (Fig. 7 D) slender, much longer than the body length. Basis much shorter than carpus. Merus small, with one short sternal seta. Carpus slender, approximately 8.5 times longer than its median thickness, with five or six tergal, and two distosternal short setae. Propodus also slender, as long as carpus, the palm being
a little longer than the fixed finger; palm with three distal setae; fixed finger very thin, curved distally, with three long simple setae on inner and outer margins; unguis very small, with undefined joint. Dactylus curved and thinner distally, a little longer than the fixed finger, having a proximoinner dentiform swelling and approximately 12 spinules on the inner margin (Fig. 7 D); unguis undefined.

Uropod as in female, excepting the length of setae, which are very long, and the presence of many spinules on third and fourth endopod articles at least (Fig. 7 C).

Remarks. I was forced to do this partial description because of an unpleasant accident occurred during the study, generated by the evaporation of the alcohol from the tube in which there were the three males which I had at my disposal.
Etymology. From the collecting place (Java Sea).

Type locality, Pari Island (Java Sea).

Geographical distribution: Java Sea and Makassar Strait.

Remarks. As it results from the above descriptions, the single morphological feature by which the males resemble the females is the uropod configuration, characterized by a very big peduncle and a short five-articulated endopod (first two articles at least being thicker than long).

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