

Travaux du Muséum National d'Histoire Naturelle «Grigore Antipa»	Vol. XLIX	pp. 59–67	© Octobre 2006
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**DESCRIPTION OF THE SECOND SPECIES
OF THE FAMILY NUMBAKULLIDAE GUȚU AND HEARD
(CRUSTACEA: TANAIIDACEA) FROM SRI LANKA**

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Abstract. It is described and illustrated a new species, *Numbakulla srilankensis*, belonging to the family Numbakullidae Guțu and Heard, 2002. The species represents the second record of this family. The main features by which the new species differs from the *N. pygmaeus* Guțu and Heard, 2002 consist in the number of plumose setae of pereopod II merus and carpus, much more numerous in *N. srilankensis* n. sp. and by the shape of chelipeds.

Résumé. On décrit et illustre une espèce nouvelle, *Numbakulla srilankensis*, appartenant à la famille Numbakullidae Guțu et Heard, 2002. Cette espèce représente la seconde mention de cette famille. Les caractéristiques principales par lesquelles la nouvelle espèce diffère de *N. pygmaeus* Guțu et Heard, 2002 consiste dans le nombre de sétas plumeuses de mérus du pereopod II et du carpus, beaucoup plus nombreuses dans *N. srilankensis* n. sp. et par la forme de chélicèdes.

Key words: *Numbakulla srilankensis* n. sp., Numbakullidae, Apseudomorpha, Tanaidacea.

Guțu and Heard (2002) described the family Numbakullidae based on some specimens collected at about 80 m deep on the Continental Shelf off northwestern Australia. The main features of this family consist in the great dimension of the pleotelson, the setulation and the size of the third article of maxilliped palp (much larger than the second one) and the presence of the very long plumose setae on the merus and carpus of pereopod II, the later characteristic being similar to the chelipedal filtering setae of the species classified in the subfamily Kalliapseudinae (Family Kalliapseudidae). The numbakullids have many other characteristics different from the kalliapseudid species but, at the same time, have some pereopodal features similar to the species belonging to the family Metapseudidae, as it results from Guțu and Heard (op. cit.). Out of the morphological aspects commented by Guțu and Heard (op. cit.), the numbakullid species have the configuration of the terminal lobe of labium similar to that of the metapseudid genera *Calozodion* (Gardiner, 1973, fig. 7; Guțu, 1984, fig. 2 G, 1996, figs 25 E, 30 C; Bamber and Shearer, 2005, fig. 6 c), *Chondropodus* (Guțu, 2006 a, fig. 415) and *Zaraza* (Guțu, 2006 b, fig. 1 E).

***Numbakulla srilankensis* n. sp.**

(Figs 1-4)

Material: 10 specimens (5 females, 1 male and 4 juveniles), Ahangama, southern Sri Lanka, in fringing reef, dead corals partly covered with algae, moderately exposed reef flat and reef channels intertidal to shallow subtidal; 28 February, 14 and 19 March 1993. Leg. Dr. Hans-Georg Müller.

Holotype (female with eggs) preserved in the Collections of the „Grigore Antipa” National Museum of Natural History from Bucharest, No. 250,359.

Allotype (adult male) in the same museum, No. 250,360.

Paratypes, 8 specimens (4 females and 4 juveniles), preserved as follows: 6 specimens (3 females and 3 juveniles) in the Collections of the „Grigore Antipa” National Museum of Natural History from Bucharest, No. 250,361, and 2 specimens (1 female and 1 juvenile) in the Collections of Senckenberg Museum, Frankfurt am Main (Germany).

Description of the female with eggs

Body (Fig. 1 A) dorsoventrally flattened, about eight times longer than the breadth of carapace. Standard length, 2.2 mm.

Carapace with parallel sides, a little narrower than the breadth of the pleonites, about 1.6 times longer than wide. Rostral margin prominent and broad with a very small median process. Ocular lobes present with visual elements (Fig. 1 B).

Pereon, approximately two times longer than the carapace but shorter than the pleon length, with very short pereonites. Last pereonite shorter than the each of preceding ones.

Pleon with five free, short and wide pleonites and a very large pleotelson, the latter being a little greater than the carapace size. First four pleonites, rounded laterally, with five to seven long plumose setae on sides; last pleonite, acuted posterolaterally, with three subequal simple setae on lateral margin and other three, plumose, posterolaterally (Fig. 1 C).

Antennule (Fig. 1 D) biramous, much longer than the carapace. First peduncle article slender, about six times longer than the median width, with some broom setae on the outer margin; distally with one-two short setae on each side. Second peduncle article, approximately 3.3 times shorter than the first one, with some small simple and broom setae on each distolateral angle. Third peduncle article, slightly narrower and shorter than the preceding one, with one-two small simple setae, distolaterally. Outer flagellum, five-articled; first and third articles with two short subequal setae and the last one with two short and two very long simple setae; second and third articles with one aesthetasc. Inner flagellum, two-articled (without common article), ended in three simple setae.

Antenna (Fig. 1 E), slender, only slightly longer than the first peduncle article of antennule. First peduncle article short. Second article, a little longer than the first one, with one short seta on the midouter side; squama, relatively small, with two subequal setae in top. Third peduncle article short, no longer than the last article of flagellum, with one distoinner spine. Fourth article, slightly longer than the previous two articles measured together, with two broom setae on the inner margin and one distoexternal long simple seta. Fifth peduncle article, as long as preceding one, with two setiform setae on the inner margin and two outerdistal small setae. Flagellum, four-articled, a little shorter than the last two peduncle articles; first, second and the last articles with one, two and four setae, respectively.

Mandibles (Fig. 1 F) with three-articled palp. First article of palp shortest with three long plumose setae; second article, longest, with five long and four very short setae; third article, narrower but slightly longer than the first one and about two times shorter than the preceding article, with eight setae, four of them short and other four, subequal, very long. Pars incisiva of the left mandible four-denticled and lacinia mobilis two-denticled; setiferous lobe with four setae, rounded distally. Pars molaris without special features.

Labium (Fig. 1 G) with ovate terminal lobe, ended in a fine spine.

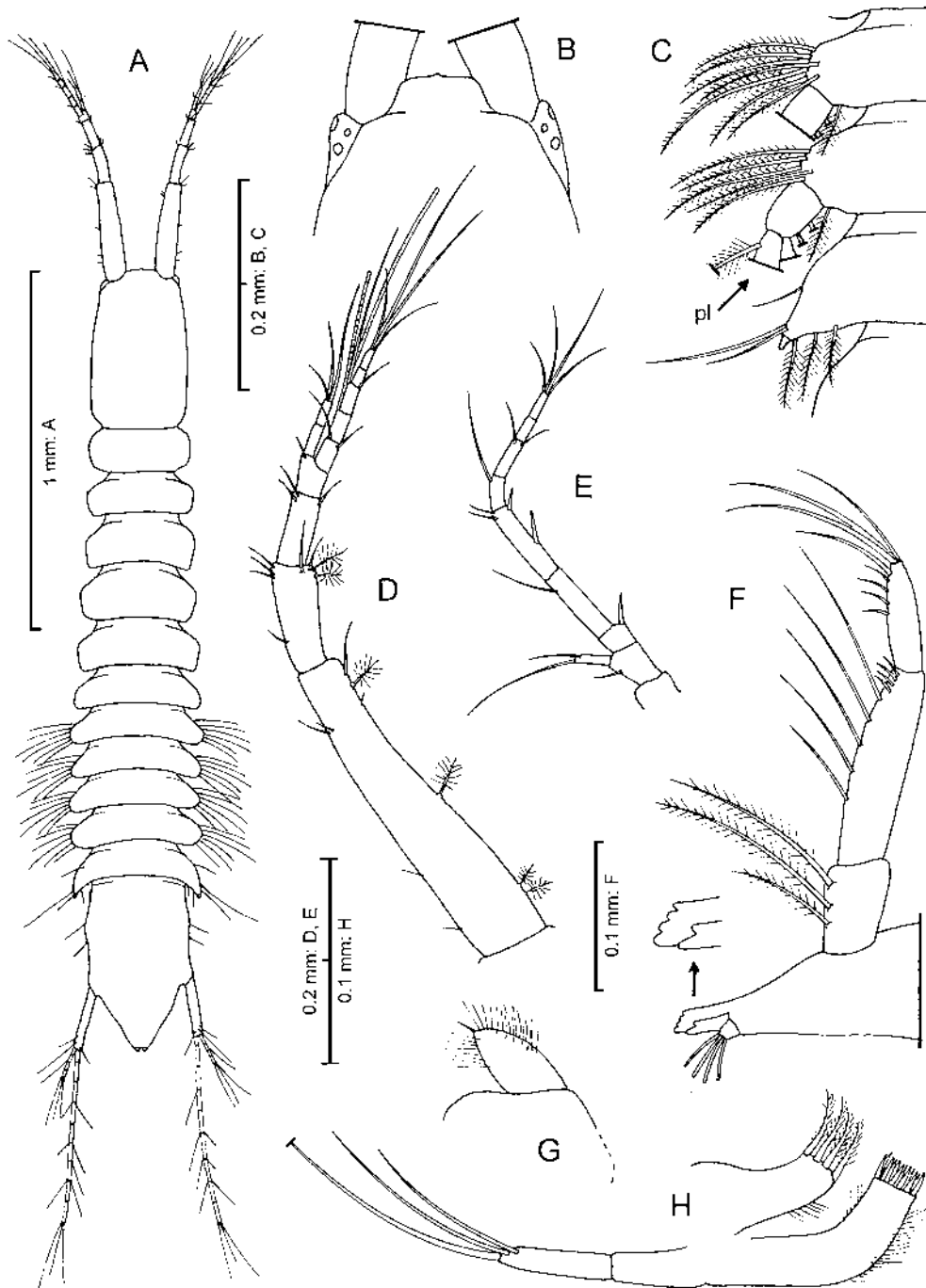


Fig. 1 – *Numbakulla srilankensis* n. sp., female, paratype: A, body, dorsal; B, frontal part of carapace; C, last three pleonites, left part (pl, pleopod); D, antennule; E, antenna; F, left mandible, rostral part (pars molaris not shown); G, labium (schematic); H, maxillule.

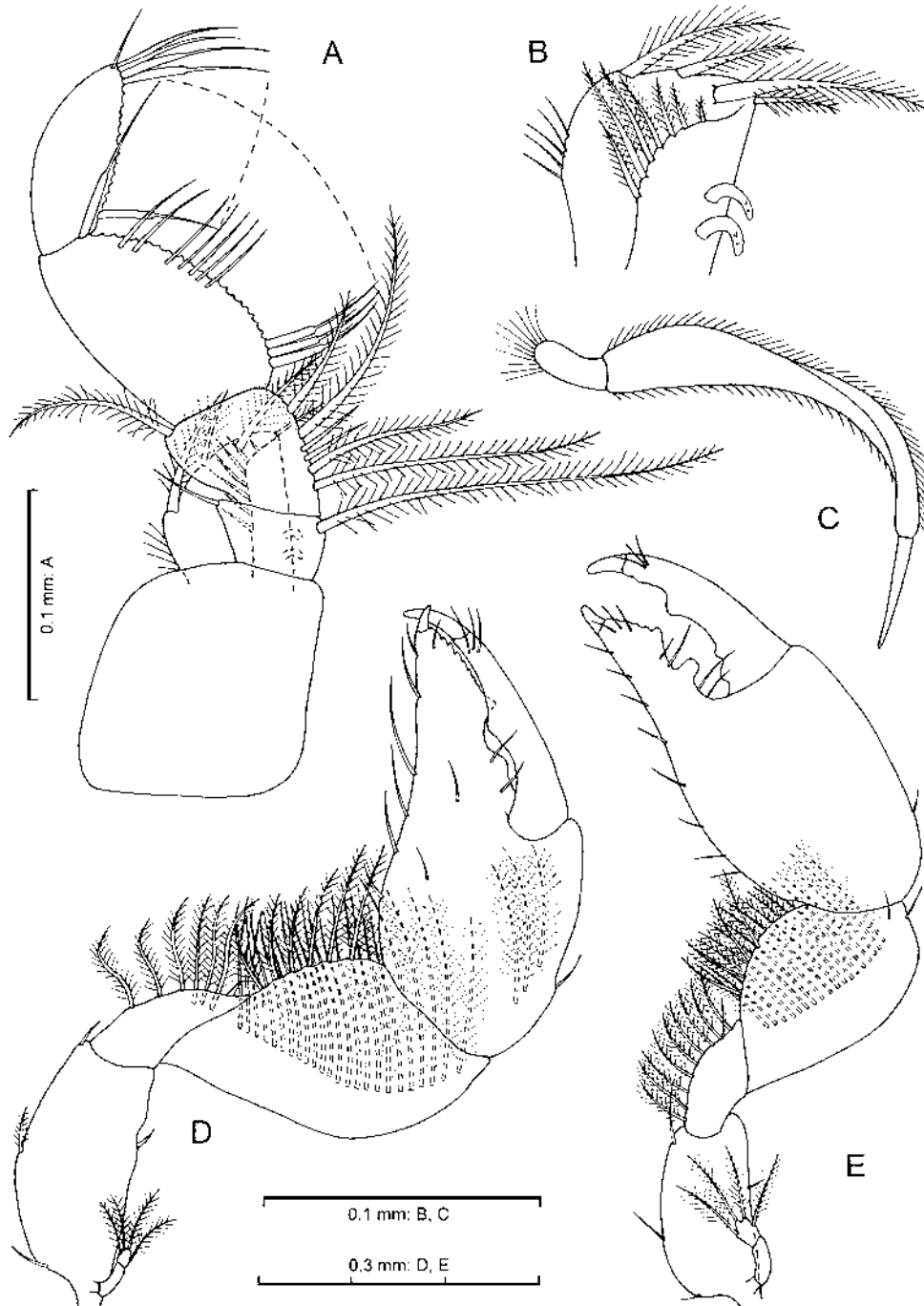


Fig. 2 – *Numbakulla srilankensis* n. sp., female, paratype, and male (E), allotype: A, maxilliped; B, endite of maxilliped; C, epignath; D, E, chelipeds.

Maxillule (Fig. 1 H) with biarticled palp, ended in three subequal setae. Outer endite with eleven spines on the distal margin. Inner lobe with four long ciliate setae.

Maxilliped (Figs 2 A, B) with short coxa. Basis, approximately as long as wide. Palp four-articled; first article, short, with one setiform spine on the distoexternal corner and one very long circumplumose seta in the distoinner angle; second article, longer than the first one but shorter than each of the following two articles, with one long and thick circumplumose seta in the distoexternal corner and six setae on the inner margin (two of them spiniform, simple, and another four long, subequal, circumplumose); third article, about two times longer than the second one, with one marginal row of 26-27 setae with special shape (thick at base and very fine distally) and one submarginal row of seven simple setae; fourth palp article, narrower than the previous ones, longer than the each of first two articles but shorter than the third one, with 17 setae on the inner margin, similar to those of the third article of palp. Endite (Fig. 2 B) with four strong, subequal, circumplumose setae on the rostral margin, seven subequal plumose setae on the inner side and two well developed couplers.

Epignath (Fig. 2 C) long and narrow, with strong spine.

Cheliped (Fig. 2 D) much larger than the pereopod II, with exopodite. Basis relatively narrow, approximately two times longer than broad, with one small mediotergal spine and three sternal setiform spines, proximally, medianly and distally. Merus narrow, with six sternal plumose setae and one spine. Carpus, larger than the basis but smaller than the propodus and much broader distally, with six plumose setae on the sternal margin and a row of about 24 long plumose setae on the inner surface, as in drawing. Propodus very large with three long plumose setae on the inner surface; fixed finger long, thick at base, with two tuberculiform prominences and two short setae on the inner margin; claw small. Dactylus, narrower than the fixed finger, with one small dentiform process on the midinner side and three short setae outerdistally; claw strong and long, curved.

Pereopod II (Fig. 3 A) slender, with exopodite. Basis, approximately four times longer than wide, with six plumose setae on the tergal margin and three ones, smaller, sternally. Ischium short with one small simple and one longer, plumose, setae. Merus, a little shorter than the basis, with two sternal rows (one marginal and another submarginal) of 29-30 very long and fine plumose setae; tergally with one short simple seta and distotergally with one long plumose spiniform seta. Carpus, a little narrower and shorter than the merus, also with two sternal rows of 16-17 very long plumose setae; tergally with three plumose setae; distotergally with one spine, one very long plumose seta (similar to sternal setae) and one short simple seta. Propodus, much smaller than the carpus, no longer than the dactylus, with one small spine, one ciliate and two subequal plumose setae on the sternal side, and one plumose seta and one spine, distotergally. Dactylus thin and long, about as long as propodus, with one strong mediotergal seta; claw small, curved.

Pereopod III (Figs 3 B, 4 A) slender, with basis about four times longer than the maximum width, having one broom and one ciliate seta, distosternally. Ischium with one distosternal simple seta. Merus, approximately equal to the carpus, with two simple setae and one small spine in the distosternal corner. Carpus with two spines and three ciliate setae on the distal end (Fig. 4 A). Propodus, as long as previous two articles (measured together) but thinner than those, with three acute spines and one ciliate seta on the sternal margin; distotergally with one broom seta,

one acute spine and one ciliate seta; distally with one short serrate seta (Fig. 4 A). Dactylus, slightly curved, long, only slightly shorter than the merus or carpus, with one tergal and one distosternal seta; claw long, curved.

Pereopod IV (Figs 3 C, 4 B) relatively similar to the pereopod III, but slightly smaller than that. Carpus, a little shorter than the merus, with three spines and three different setae in the last half. Propodus with three sternal spines, one distal great serrate seta and two subequal distotergal setae, one of them ciliated. Dactylus thin and long, slightly curved, with one tergal and one distosternal seta; claw acute, well developed.

Pereopod V (Figs 3 D, 4 C) approximately as long as pereopod IV. Basis, a little longer than the ischium, merus and carpus measured together, with two broom setae, one proximotergally and another distosternally, and one small simple seta, also distosternally. Merus, shorter than the carpus, with two distosternal subequal simple setae and one distotergal ciliate seta. Carpus with four spines and three ciliate setae in the distal end (Fig. 4 C). Propodus, about one and half times longer than the carpus, with seven subequal serrate and three long, ciliate setae on the distal end, and one sternal setiform spine. Dactylus narrow and long, with one distosternal and one tergal seta; claw acute, curved.

Pereopod VI relatively similar to the pereopods III or IV.

Pereopod VII (Figs 3 E, 4 D) different and longer than the previous pereopods. Basis slender, about five times longer than wide, with eight sternal long plumose setae, and another one, distotergally. Ischium short. Merus, a little shorter than the carpus, with four long sternal plumose setae, and other four, shorter, tergally. Carpus, slightly longer than the ischium and merus measured together, with one distosternal spine, five long sternal plumose setae and other four, tergally. Propodus, longer than the carpus, with a row of 18 short subequal ciliate setae, sternodistally, three sternal spines and three distotergal simple setae (Fig. 4 D). Dactylus strong, curved; claw relatively small.

Pleopods (Fig. 4 E) biramous and uniaarticled, in four pairs. Basal article short and thick, with two circumplumose setae on the inner margin. Exopodite, shorter and narrower than the endopodite, with 12 plumose setae around. Endopodite with 14 long plumose setae around.

Uropod (Fig. 4 F) slender, biramous. Protopodite long and thin, slightly longer than the exopodite (measured without the distal setae), with one very long and two short simple setae, distally. Exopodite four-articled, ended in one broom and three long simple setae; second article also with one long simple seta. Endopodite, approximately five times longer than the exopodite (excluding the distal setae), with nine long and thin articles; third, fifth, sixth and seventh articles with one or two long simple setae; terminally with three long simple setae.

Adult male similar to the female, excepting the shape of the cheliped (Fig. 2 E) which has a little narrower propodus and a smaller number of plumose setae on the inner surface of carpus (only 18-19, comparatively to 24 in females, fig. 4 D).

Type-locality. South Sri Lanka (Indian Ocean).

Etymology. After the collecting area.

Remarks. The main features by which *Numbakulla srilankensis* n. sp. differs from the another known species, *N. pygmaeus* Guțu and Heard, 2002 from the Australian waters, consist in the configuration and presense of numerous plumose setae on cheliped carpus, and by the number of plumose setae of pereopod II merus and carpus, much more in the new species.

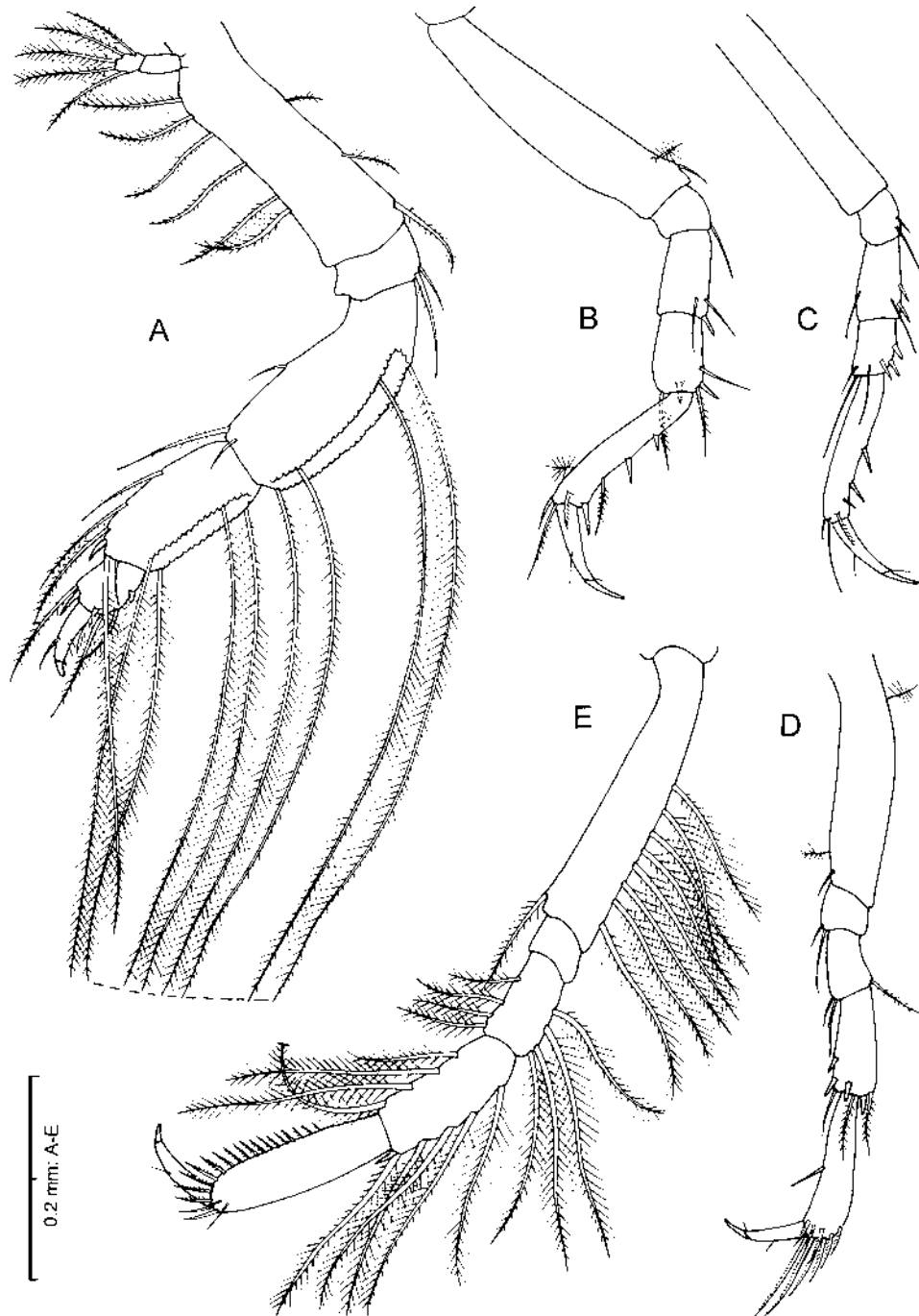


Fig. 3 – *Numbakulla srilankensis* n. sp., female, paratype: A-E, pereopods II, III, IV, V and VII.

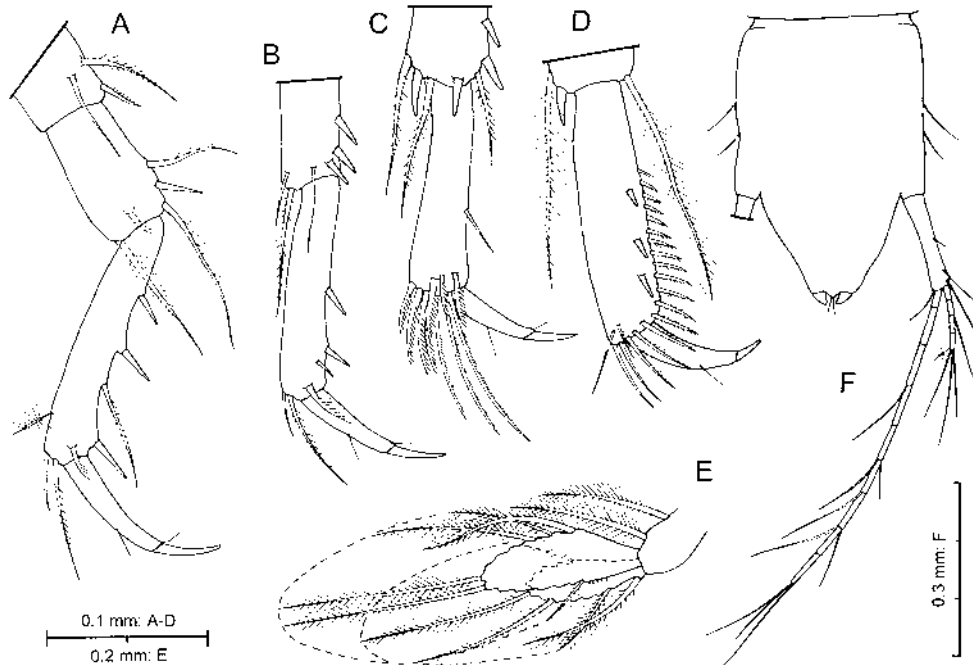


Fig. 4 – *Numbakulla srilankensis* n. sp., female, paratype: A, merus (last part), carpus, propodus and dactylus of pereopod III; B, C, D, carpus (last part), propodus and dactylus of pereopods IV, V and VII; E, pleopod; F, pleotelson and right uropod.

ACKNOWLEDGEMENTS

I express my sincerely gratitude to Dr. Hans-Georg Müller who send me the material for study, and to my colleague, Mrs Mihaela Achim-Barcan, who verified the English version. Also, many thanks to the anonymous reviewers.

DESCRIEREA CELEI DE A DOUA SPECII DIN FAMILIA NUMBAKULLIDAE GUȚU ȘI HEARD (CRUSTACEA: TANAIIDACEA) PROVENIND DIN SRI LANKA

REZUMAT

Se descrie *Numbakulla srilankensis* n. sp. din apele mediolitorale ale insulei Sri Lanka, specie care se deosebește de cea cunoscută, din apele adânci ale platformei continentale nord-vestice ale Australiei (*N. pygmaeus* Guțu și Heard, 2002), în special prin prezența setelor penate de la nivelul carpului chelipedal și prin numărul mult mai mare al celor de pe merusul și carpul pereopodului II.

Prin descrierea acestei noi specii este confirmată validitatea familiei amintite și se extind ariile batimetrică și geografică de răspândire.

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Received: March 1, 2006

Accepted: April 10, 2006

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