

A New Species of the Genus *Allopauropus* (Pauropoda, Pauropodidae) from the Boso Peninsula, Central Japan

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Abstract A new species of the pauropod genus *Allopauropus*, *A. (Decapauropus) dendriformis* sp. nov. is described. The new species is distinguishable from *A. (D.) bouini* by the ratio of antennal globulus *g* to antennal branch *t* and the appearance of T_3 .

Key words: *Allopauropus dendriformis* sp. nov., Pauropodidae, Pauropoda, Chiba, Japan.

Pauropod fauna of the Boso Peninsula has so far been poorly investigated, and a single polypauropodine species, *Fagepauropus ishii* is recorded at present (Hagino, 1991b). I recently found a new species belonging to the genus *Allopauropus*, and described it under the name of *Allopauropus (Decapauropus) dendriformis*.

In description, range of measurement is shown as in the form of (paratype-) holotype (-paratype), sometimes value of holotype being smallest and/or largest. There is occasionally a difference between the left and right measurements of holotype. For abbreviations, see Hagino (1991a).

Allopauropus (Decapauropus) dendriformis sp. nov.

(Fig. 1A–K)

Body length: (0.43–) 0.45 (–0.54) mm.

Head (Fig. 1A): Tergal setae blunt, annulate; median ones clavate, others subcylindrical. Relative lengths of setae, 1st row: $a_1 = 10$, $a_2 = (11-)$ 13–15; 2nd row: $a_1 = (10-)$ 11–15, $a_2 = 10-11(-15)$, $a_3 = (9-)$ 10–15; 3rd row: $a_1 = (11-)$ 13–17, $a_2 = (18-)$ 21–25; 4th row: $a_1 = 13-18$, $a_2 = (21-)$ 24–28(–30), $a_3 = (18-)$ 20–22(–23), $a_4 = 23-32(-35)$. Ratio $a_1/a_1 - a_1$ in these rows, 0.7–0.8(–0.9), 0.4–0.5, 0.6–0.7(–0.8) and 0.6–0.8(–0.9), respectively. Length of temporal organ (0.7–) 0.9 of their mutual distance. Cuticle granulate.

Antennae (Fig. 1B): First antennal segment provided with no seta, 2nd with 2, 3rd with 3,

4th with 4 setae; the last blunt, annulate, subcylindrical. Relative lengths of them: $p = 100$, $p' = (42-)$ 46(–54), $p'' = (42-)$ 46(–54), $r = (56-)$ 58–63(–67). Seta p (1.4–) 1.5(–1.8) \times as long as t . Branch t short, subcylindrical, (1.4–) 1.6–1.7(–1.8) \times as long as wide, 0.8–0.9(–1.0) \times as long as s , which is somewhat clavate, (1.4–) 1.6–1.8 \times as long as wide, with anterodistal corner more truncate than posterodistal one. Seta q blunt, cylindrical, annulate, 0.9–1.1(–1.5) \times as long as s . Relative lengths of flagella (basal segments included) and basal segments: $F_1 = 100$, $bs_1 = 8-9$; $F_2 = (29-)$ 32–35(–36), $bs_2 = 5-6$; $F_3 = 76-79(-85)$, $bs_3 = (7-)$ 8–10. F_1 (5.5–)5.8–6.1(–6.6) \times as long as t ; F_2 and F_3 (1.5–)1.6–1.8(–1.9) and 3.8–4.1(–4.6) \times as long as s , respectively; distal calyces hemispherical, those of F_2 and F_3 small. Globulus g with 8–9 bracts, 1.0(–1.1) \times as long as wide; diameter of g (0.5–)0.6(–0.7) of width of t . Antennae granulate.

Trunk (Fig. 1C–F): Setae ls and ms on collum segment simple, subcylindrical, annulate; bases with short pubescence; ls (2.7–)3.1(–3.6) \times as long as ms . Sternite process with shallow anterior incision, pubescent (Fig. 1C). Setae on tergites blunt, subcylindrical, annulate; 4+4 on Ter I, 6+6 on Ter II–IV, 6+4 on Ter V and 4+2 on Ter VI. Relative lengths of trichobothria: $T_1 = 100$, $T_2 = (93-)$ 102–107(–121), $T_3 = (93-)$ 101–104(–107), $T_4 = (100-)$ 102–111(–120), $T_5 = (138-)$ 149–151(–154); T_1 , T_2 and T_4 subequal, ramified, each with distinct axis on proximal 1/2, with a

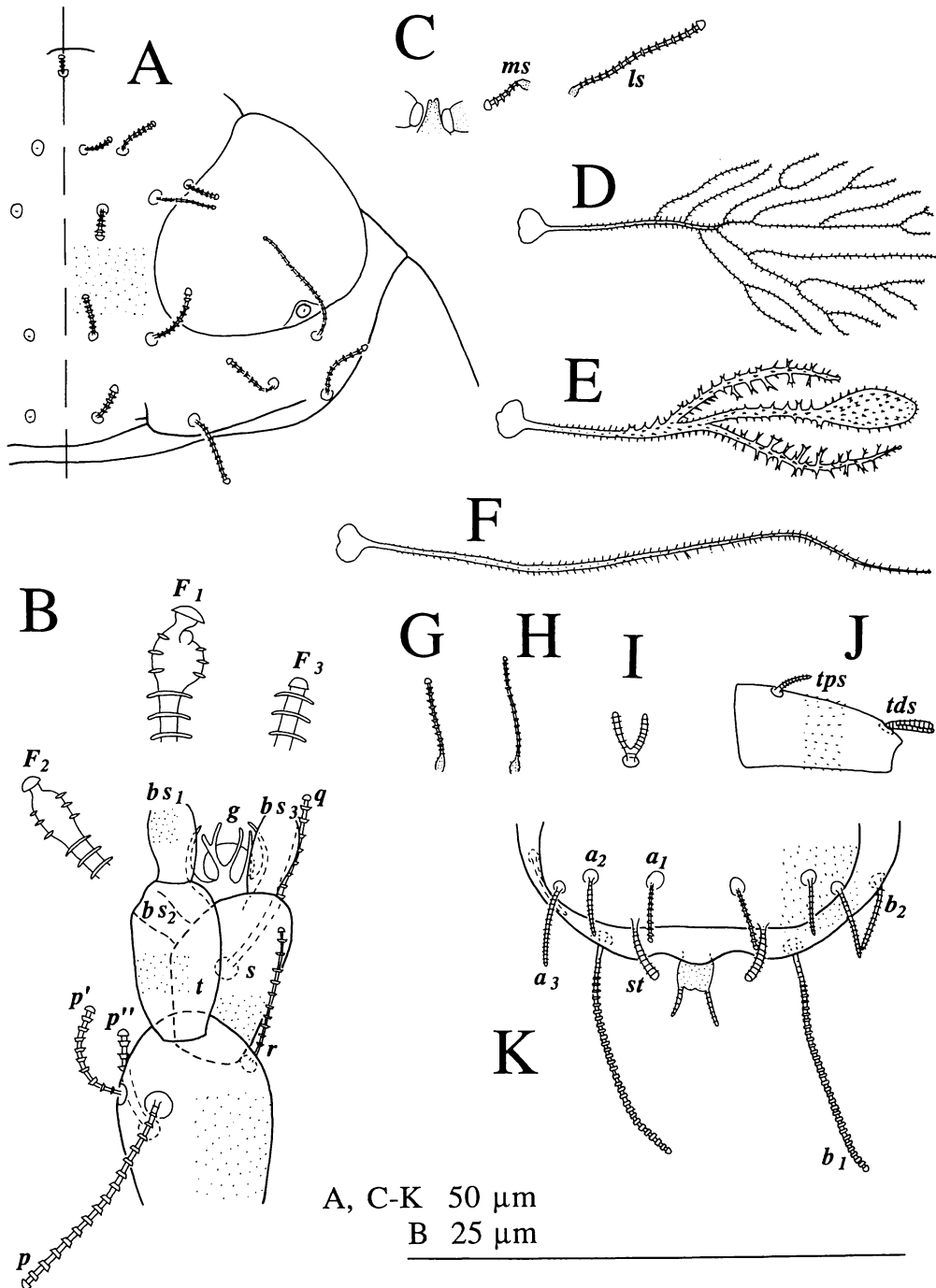


Fig. 1. *Allopaupopus (Decapaupopus) dendriformis* sp. nov.: A, Head, right half, tergal view; B, right antenna, tergal view; C, collum segment, left half, sternal view; D, T_1 ; E, T_3 ; F, T_5 ; G, *cos* on L_9 ; H, *trs* on L_9 ; I, *tds* on L_9 , tergal view; J, tarsus of left L_9 , anterior view; K, pygidium, tergal view. Pubescence is partly illustrated in A, B, J and K.

few thin branches on proximal 1/3 outwards; axis not distinct on distal 1/2, ramified into thin branches; most branches twice to four times further branched dichotomously; all branches with short pubescence. T_3 with thicker, tri-branched axis; submedian branch with apical ovoid bulge; pubescence stout, partly branched. T_5 with thin, simple axis; pubescence hairs short, simple (Fig. 1D-F).

Legs (Fig. 1G-J): On L_1 - L_9 , setae *cos* and *trs* similar to those on collum segment (Fig. 1G, H), *tds* furcate (Fig. 1I). Tarsus of L_9 2.4(-2.6) \times as long as wide, tapered, pubescent; setae annulate; *tps* cylindrical, blunt, 0.2-0.3 of tarsus and (0.6-)-0.8-0.9 of length of *tds* (Fig. 1J).

Pygidial tergum (Fig. 1K): Setae annulate, blunt; a_1 , a_2 and a_3 subcylindrical, *st* clavate, curved inwards. Relative lengths of setae: $a_1 = 100$, $a_2 = (79-)-86-87(-92)$, $a_3 = (100-)-120-129(-131)$, $st = 80-107(-115)$. Distance a_1 - a_1 1.0(-1.3) \times as long as a_1 , a_1 - a_2 (1.2-)-1.7(-2.2) \times as long as a_2 - a_3 , st - st 1.9-2.3 and 1.6(-2.1) \times as long as st and a_1 - a_1 , respectively. Cuticle pubescent.

Pygidial sternum (Fig. 1K): Posteromedian margin with three rounded bulge between b_1 . Setae subcylindrical, blunt, annulate; relative lengths ($a_1 = 100$): $b_1 = 340-364(-469)$, $b_2 = (107-)-114-120(-138)$. Seta b_3 absent. Seta b_1 (1.2-)-1.3(-1.4) \times as long as b_1 - b_1 , b_2 0.7-0.8 of b_1 - b_2 . Anal plate subrectangular, 1.1(-1.3) \times as long as wide; lateral margin convex; posterior margin with slight median incision; posterolateral corner each with a subcylindrical, annulate appendage which is (0.8-)-0.9(-1.0) \times as long as the plate. Cuticle pubescent.

Type locality. *Castanopsis* forest, Daifusamisaki, Tomiura-machi, Chiba Pref., 35°02'N, 139°49'E, alt. 80 m.

Type materials. Holotype: adult female with 9 pairs of legs, 15. IV. 1988, leg. K. Ishii. Paratypes: 4 adult females with 9 pairs of legs, same data as holotype.

Holotype and 2 paratypes are deposited in the Natural History Museum and Institute, Chiba (CBM-ZU 52-54) and the remaining paratypes are in my collection.

Remarks. *Allopaupopus* (*Decapauropus*) *dendriformis* is close to *A. (D.) bouini* Remy, 1955 from Angola (Remy, 1955) and Florida (Remy, 1958). The new species is distinguishable from *A. (D.) bouini* by (1) the ratio 0.5-0.7 of antennal globulus *g* to antennal branch *t* (1.0 in *A. (D.) bouini*) and (2) stout and partly branched pubescence on T_3 (thin and simple in *A. (D.) bouini*).

Acknowledgments

I thank Mr. Kiyoshi Ishii, Dokkyo University School of Medicine, for providing me with the specimens. I am also grateful to Dr. Ulf Scheller, Häggesled, Järpås, Sweden, and Prof. Hiroshi Tamura, Ibaraki University, for their suggestions and reading of the manuscript.

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房総半島産ナミエダヒゲムシ属 (エダヒゲムシ綱: エダヒゲムシ科) の一新種

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房総半島富浦町大房岬より採集されたナミエダヒゲムシ属の一新種を *Allopaupopus* (*Decapauropus*) *dendriformis* サンゴホンエダヒゲムシ (新称) として命名・記載した。本種は *A. (D.) bouini* Remy に似るが、(1) 触角球状体と触角上枝の直径の比および (2) 第3感毛の形状により区別できる。