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REDESCRIPTION AND FAMILY STATUS OF THE MAGELLANIC ISOPOD *JANTHOPSIS LAEVIS* MENZIES, 1962 (ASELLOTA: ACANTHASPIDIIDAE)

Holger Winkler

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ABSTRACT

A redescription of *Janthopsis laevis* Menzies, 1962 (Isopoda: Asellota: Acanthaspidiidae) is presented and new localities are added to literature. The taxonomic status of the genus *Janthopsis* is discussed.

ZUSAMMENFASSUNG

Eine Nachbeschreibung von *Janthopsis laevis* Menzies, 1962 (Isopoda: Asellota: Acanthaspidiidae) wird vorgelegt und neue Fundorte werden veröffentlicht. Der taxonomische Status der Gattung *Janthopsis* wird diskutiert.

ABBREVIATIONS USED IN TEXT AND FIGURES

A2, second antenna; P1 - P7, pereopods 1-7; Plp1 - Plp3, pleopods 1-3; Urp, uropod; (F), female; (M), male.

INTRODUCTION

Janthopsis laevis Menzies, 1962 was rediscovered among many isopods found in a series of benthos samples from Magellan Strait. As Menzies' original drawings are incomplete and differences between his drawings and the new material are obvious, a supplementary description had to be prepared. *Janthopsis* is a mainly Antarctic and Subantarctic genus and up

to now *J. bovalli* (Studer, 1884) was recorded from Patagonia only.

MATERIAL AND METHODS

The material examined was collected in April 1976 in Magellan Strait at locations listed in Table 1, carefully sorted out by Prof. V.A. Gallardo (Universidad de Concepción, Chile), and kindly submitted to Dr. J.W. Wägele (Universität Oldenburg, Germany). The samples were taken with bottom grabs. All animals were preserved in alcohol and examined in glycerine under a dissecting microscope. The taxonomic drawings were prepared with a camera lucida.

Tab. 1. - Station list of material used for redescription.

Station	Station locations		Depth	Sediment type	#		#	
STA. HJ	52°44.9'S	70°05.4'W	10m	barnacles	3	5.77- 6.49mm	1	5.64mm
STA. HL	52°34.1'S	69°58.1'W	10m	shell and clay			1	2.95mm
STA. HM	52°34.5'S	69°52.0'W	12m	barnacle clusters	1	6.36mm		
STA. HO	52°32.5'S	69°53.4'W	11m	shell and clay			1	3.93mm
STA. HP	52°39.3'S	69°45.8'W	26m	rock and large shells			1	6.1mm
STA. HEE	52°37.5'S	70°06.8'W	38-41m	shell, pebbles, slates			1	2.56mm
STA. HFF	52°38.8'S	70°04.9'W	30-32m	shell, sand, pebbles			1	5.84mm
STA. HHH	52°46.5'S	70°01.9'W	35m	slates, barnacle clusters	2	6.1- 6.75mm	7	4.13- 7.23mm
STA. HLL	52°17.0'S	69°20.5'W	10-11m	stones, shell on surface	1	6.16mm	1	3.67mm
STA. HOO	52°28.8'S	69°28.4'W	11m	rocks	1	6.3mm		
STA. HPP	52°42.2'S	70°11.5'W	60m	rocks			1	7.21mm

Janthopsis laevis Menzies, 1962

J. laevis Menzies, 1962:85, fig. 27

SUPPLEMENTARY DESCRIPTION (figs.1-4)

Menzies already described and/or drew a dorsal view and many appendages of *J. laevis*. Habit, first antenna, mouthparts and pleopods 4 and 5 are not described again in this paper; differences between Menzies' figures and the new material are discussed under "Remarks".

Peduncle of A2 (fig.1) 5-articulated; first 3 articles short, article 3 shortest of all peduncular articles; cylindrical scale on article 2, with long, mainly distal simple setae; peduncular articles 4 and 5 cylindrical, of subequal lengths; articles 2-5 each covered by many long simple setae, 1 feathered bristle on second half of last peduncular article. Flagellum of 1 long and 20 short articles; flagellar article 1 covered by many long simple setae and obviously consisting of fused short articles distally; each short flagellar article with several long distal simple setae (see fig.1, A2).

All pereopods (fig.1-4) ambulatory, no sexual dimorphism; increasing in length from anterior to posterior, mainly due to a slight elongation of all articles, but with subsimilar shape of the articles. Basis longest article, dorsal and ventral margins setose; 1 or 2 feathered bristles on medial or on proximal part of

dorsal margin. Ischium shorter than basis, dorsal and ventral margins setose. Merus distally wider than proximally, ventral margin setose, further simple setae on merus; 1 sensory seta and 1 simple seta on dorsodistal corner of P1 (fig.1), 3 sensory setae in the same place on P2-6 (figs.2, 3) and 2 on P7 (fig.4), 1 additional simple seta on P5 and P6 and 2 on P7. Carpus and propodus cylindrical, propodus narrower than carpus; a row of sensory setae on ventral margins, long simple setae on dorsal margins, a long feathered bristle dorsodistally on each article, further short simple setae as shown on the drawings. Dactylus shortest article, 1 long claw dorso-distally, 1 short claw ventrodistally; 2 simple setae between claws, 3 or 4 marginal simple setae dorsodistally.

Male P1p1 (fig.3) longer than broad, proximally wider than distally, lateral margins of the proximal 2 thirds of pleopod setose; distally 2 diverging points with short apical simple setae; medially and subapically of points 2 cylindrical "horns", bearing long simple setae, which surpass points of pleopod distally.

Protopodite of male P1p2 (fig.4) longer than wide; lateral margin setose, distal setae setulated (see detail in fig.4). Exopodite small; with 2 medially directed vaults, distal one with marginal simple setae. Endopodite 2-articulated; distal article bearing a long and slender whiplike prolongation, nearly twice as long as protopodite.

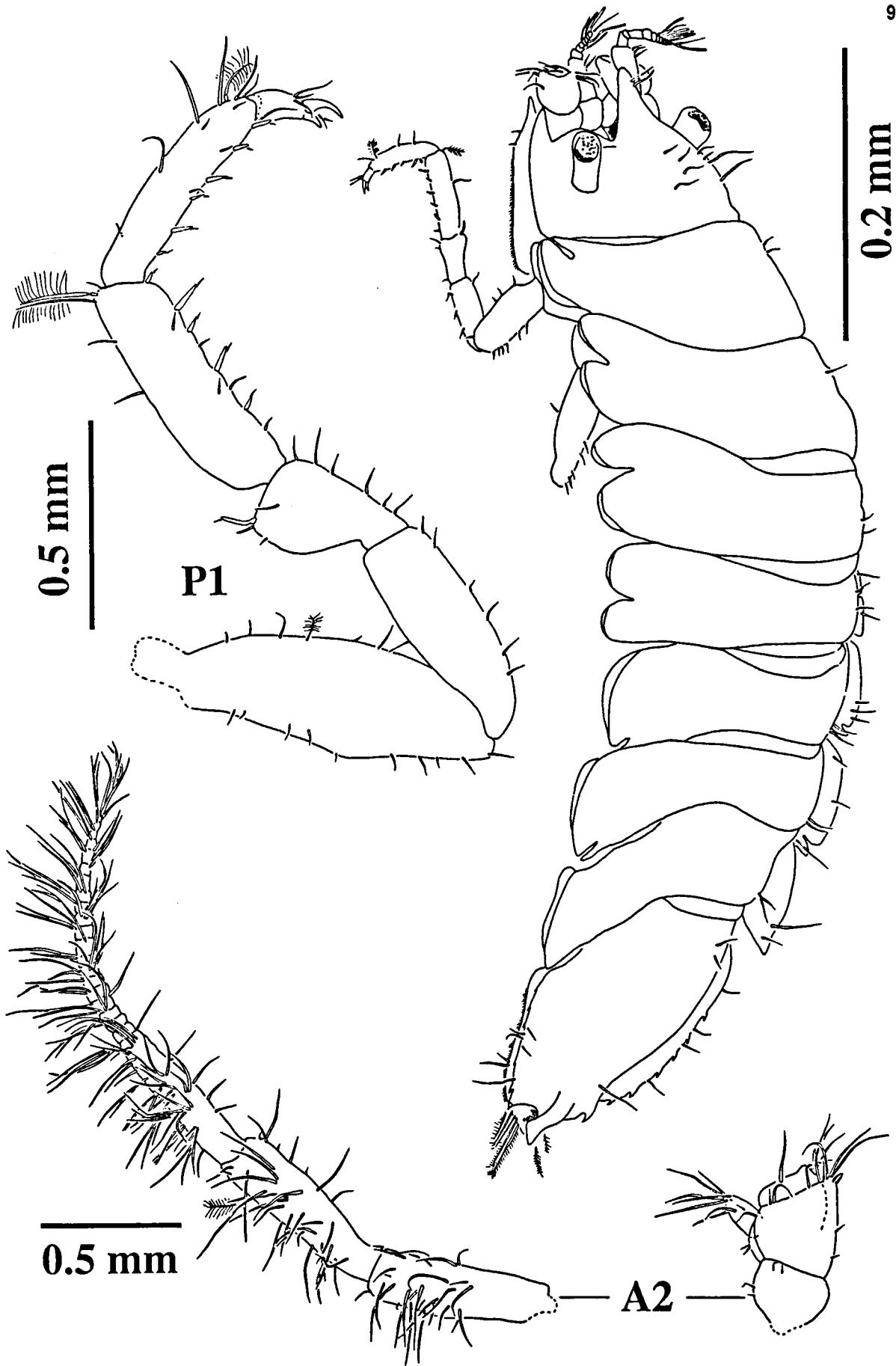


Fig.1 - Female in lateral view. A2, first 3 peduncular articles and rest of second antenna; P1, first pereopod of female.

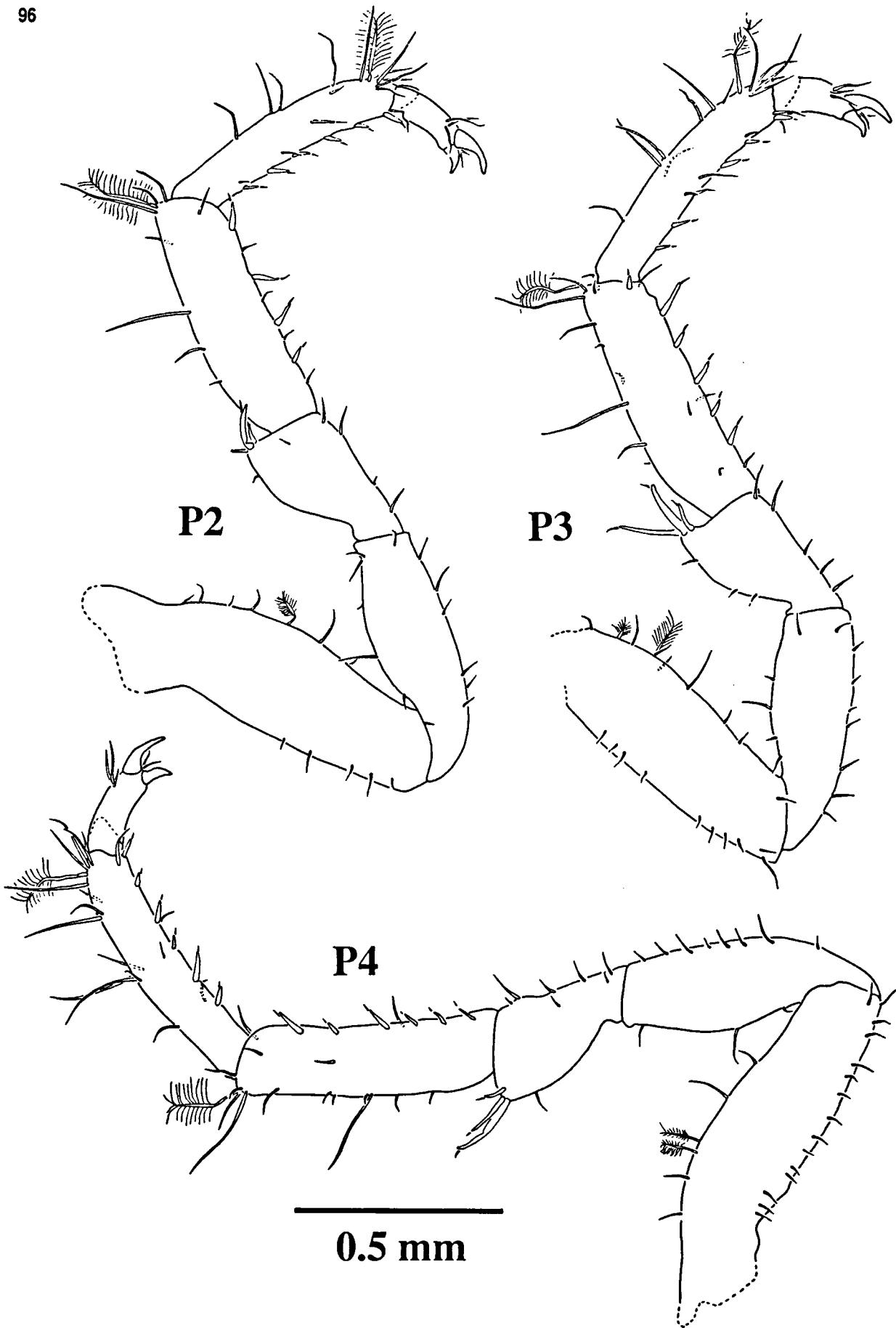


Fig.2. P2, P3, P4, pereopods 2-4 of female.

Female Plp2 (Operculum, fig.4) longer than broad, apically projected into a rounded point; lateral margins setose, long plumose setae apically (see detail in fig. 4);

Plp3 (fig.4) not sexually dimorphic. Protopodite ovate, broader than long. Endopodite and exopodite ovate, longer than broad and with plumose setae distally each; endopodite broader than exopodite; margins of exopodite setose, medial margin of endopodite with clusters of 3 simple setae each (see details in fig.4).

Urp (fig.4) of 3 cylindrical articles, covered by many long simple setae; protopodite broadest and longest article, exopodite shorter than endopodite.

REMARKS

Janthopsis laevis Menzies, 1962 was known only from its type location in southern Chile. The specimens from Magellan Strait are very similar to those illustrated by Menzies (1962:83, 84). Contrary to the latter, in the present material the flagellum of the first antenna consists of 7 articles instead of 4 drawn by Menzies (1962:85, fig.27 O); the first flagellar article is the longest, the last 6 articles are bearing a single aesthetasc each. The middle and the distal article of the mandibular palp are covered by setose scales in the present material, and the body of the first maxilla - not only its margin - bears many setae. Also, there are 4 coupling hooks on the maxilliped and some dorsal setae on the body of its endite. Finally, the margin of the distal article of the exopodite of pleopod 4 has insignificant setules.

The marginal setae of the pereonites shown by Menzies (1962:85, fig. 27 A) are also present in the Magellanic material; however, they are only seen on the right side (fig.1). The new material shows that the eyes are not only bulging, but that there are well developed and lateroproximal directed eyestalks is present. Furthermore, pereonite 6 has a notch latero-distally.

DISCUSSION

Menzies placed the genus *Janthopsis* in the family Janirellidae Menzies, 1956, but later on one recognized that important characters distinguish *Janthopsis* from other genera of this family (see e.g. discussion of Janirellidae and Acanthaspidiidae in Wägele,

1989: 80-85). Menzies' diagnosis of the Janirellidae includes that "at least six [pereopods] are unmodified walking legs" (Menzies, 1962:83), whereas in *Janthopsis* all pereopods are ambulatory (see e.g. Brandt, 1991:224). In *Janthopsis* the exopodite of pleopod 3 has distally many plumose setae - not only 3, which is common in the Janirellidae. At last, the characteristic shapes of the pereonites in lateral view - pereonite 1 with a distally or distofrontally directed lappet, pereonites 2-4 each with two lateral lappets and pereonites 5-7 with a single lateral projection - do not occur in the latter family. So, the decision to remove *Janthopsis* from the family Janirellidae must be supported.

The main characters of *J. laevis* and other species of *Janthopsis* correspond nearly completely with the diagnosis of the family Acanthaspidiidae Menzies, 1962, given by Brandt (1991:204). At this point there is no objection, to relegate *Janthopsis* out of the Acanthaspidiidae.

Two characters of *J. laevis* are, however, not very common in *Janthopsis*; prominent eyestalks in *J. laevis* (see fig.1) against ocelli normally located on small bulges, whenever functional eyes are present, and the male pleopod 1 with diverging lateral horns. Although medially situated setiferous cylindrical bulges are seen as well in *J. nasicornis* Vanhöffen, 1914 and in *J. multispinosa* (see Brandt, 1991:239,246 respectively), they are never as proximal as in *J. laevis* (see fig.3).

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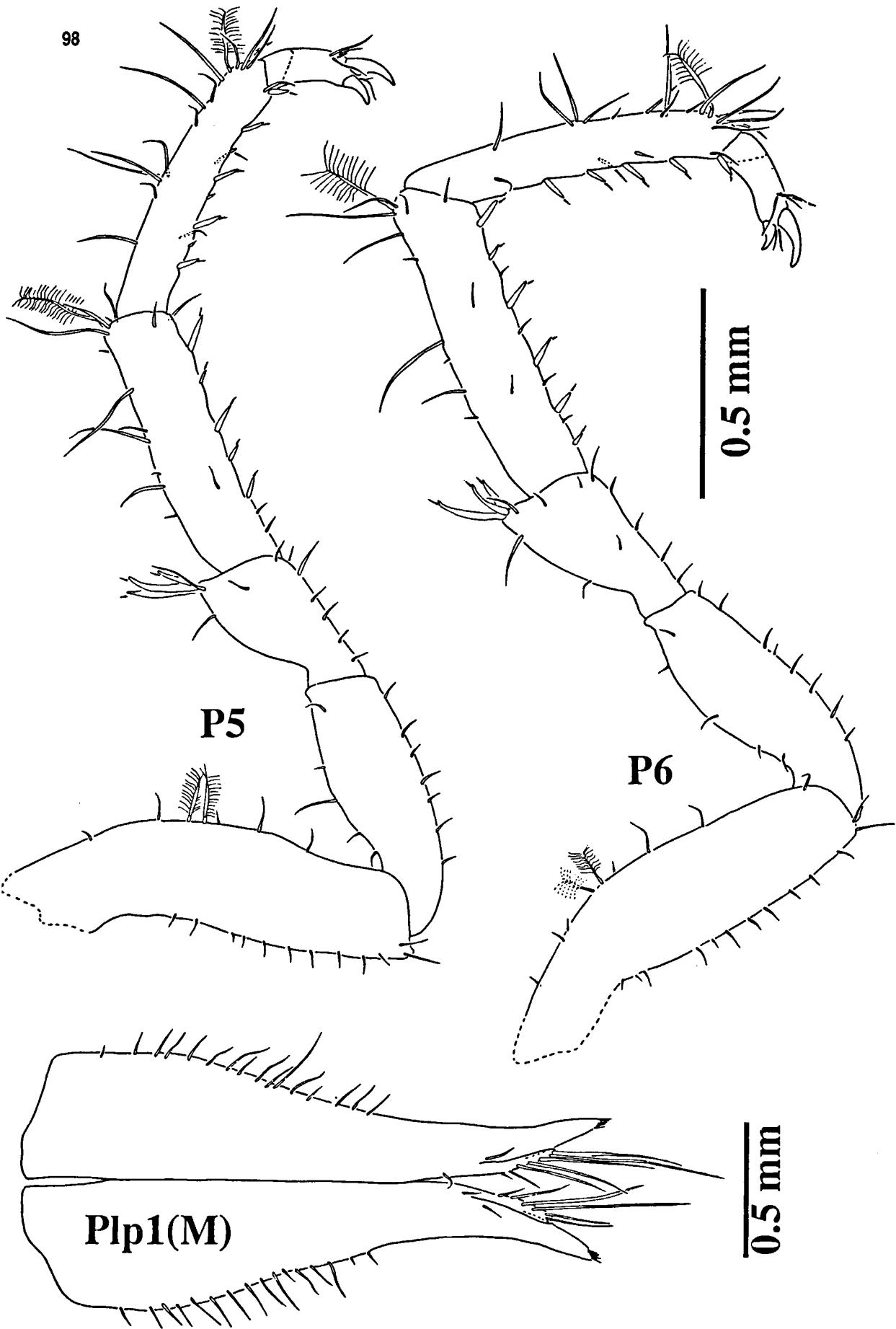


Fig.3 - P5, P6, pereopods 5 and 6 of female. Plp1(M), first male pleopod.

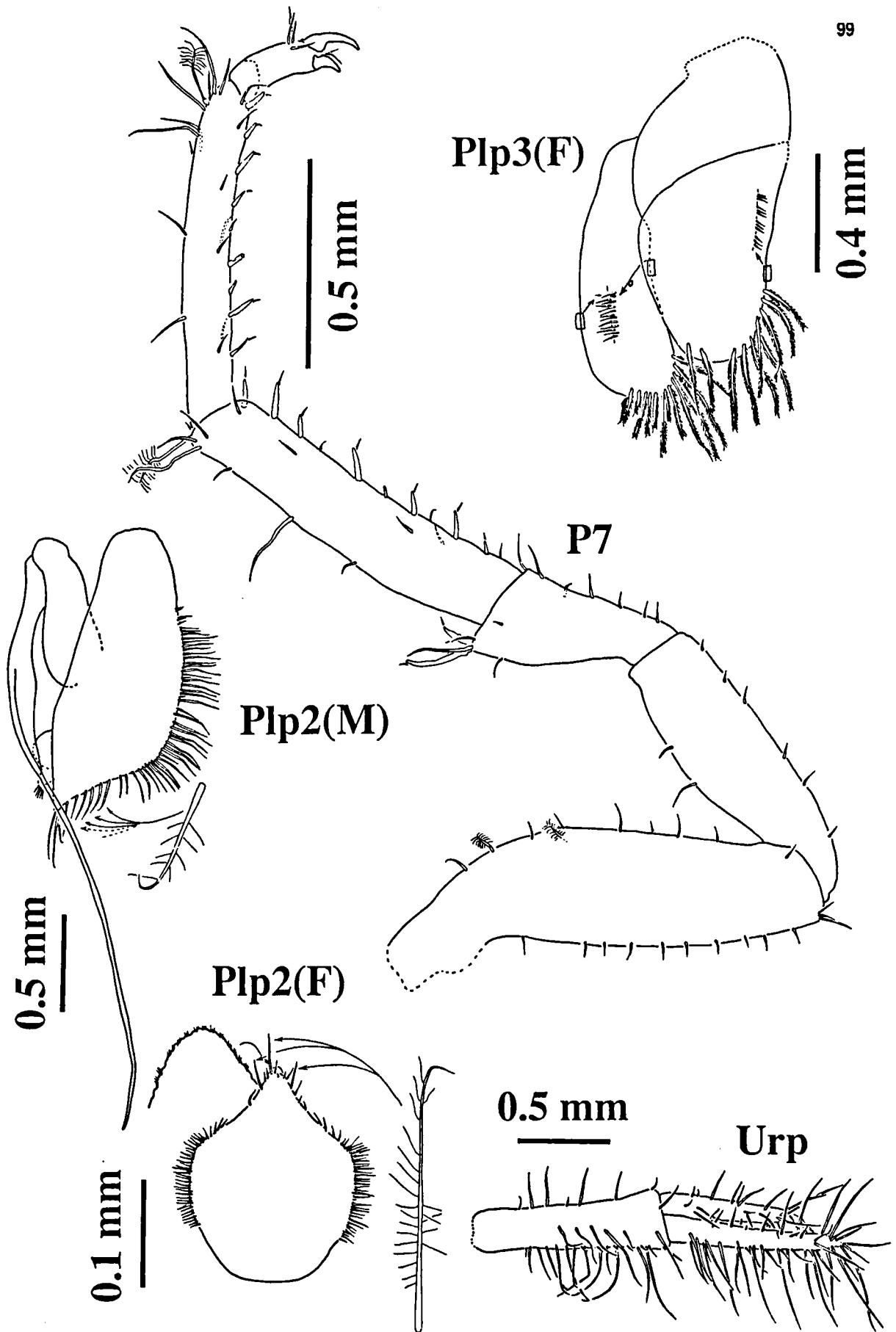


Fig.4 - P7, Plp2(F), Plp3(F), Urp, pereopod 7, second and third pleopod, uropod of female. Plp2(M), second pleopod of male.

Holger Winkler,
Universität Oldenburg,
Fachbereich 7,
P.O.B. 2503,
D-W-2900 Oldenburg,
Germany.

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