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A NEW SPECIES OF *ANCHIMOLGUS* (COPEPODA: POECILOSTOMA TOIDA: LICHOMOLGIDAE) ASSOCIATED WITH AN INDONESIAN CORALLIMORPHARIAN

by

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Description of *Anchimolgus cuneatus* spec. nov., a lichomolgid copepod associated with an undescribed species of *Pseudocorynactis* (Corallimorpharia) from the Flores Sea, Indonesia. Members of this genus of Copepoda were hitherto only recorded as associates of Scleractinia.

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INTRODUCTION

Corallimorpharia (Cnidaria, Anthozoa) are relatively rare as hosts for associated Copepoda. Humes (1982), in an authoritative review, lists only three species of these anemone-like cnidarians, serving as host for six species of copepods.

I am grateful to Drs. J.C. den Hartog, curator of the department of Coelenterata of the Rijksmuseum van Natuurlijke Historie (RMNH), Leiden, The Netherlands, for entrusting me four specimens of a lichomolgid copepod discovered clinging to the tentacle stalks of a single specimen of an undescribed species of *Pseudocorynactis* (Corallimorpharia) collected during the Snellius II Expedition in Indonesian waters. No copepods were found on three other specimens of this corallimorpharian. The copepods belong to a new species of *Anchimolgus* Humes & Stock, 1972, a genus embracing at present ten species

(Humes, 1979b:100), all Indo-Pacific, and all associated with eight genera of Scleractinia (hard corals). The new species is described in the present paper.

Anchimolgus cuneatus spec. nov.

Material. — 1 ♀ (holotype) and 3 ♀♀ (paratypes). From the tentacle stalks of *Pseudocorynactis* spec. nov. (Den Hartog, in prep.). Snellius II Expedition Station 4.152: SW of Salayer (Flores Sea), NW coast of Pulau Guang, 06°21'S 120°27'E, depth c. 4 m, depression in steep rock wall. Holotype RMNH Crust. F 1000, 3 paratypes RMNH Crust. F 1001.

Description. — Female: Body length (excluding furcal setae) 1.73-1.84 mm; greatest width of cephalosome 0.87-0.90 mm. Ovisac $508 \times 277 \mu\text{m}$. One or two spermatophores (fig. 2) on each side of genital somite. Epimeres of cephalosome and of metasomite 1 pointed; those of metasomite 2 rounded; metasomite 3 much narrower than 2; urosomite 1 almost as wide as metasomite 3 (fig. 1). Genital somite (fig. 2) hardly longer than wide; lateral margins of anterior (enlarged) part not regularly convex, but slightly excavated. Anal somite with 2 mid-ventral (not terminal) chitinous processes. Caudal ramus (fig. 2) $124 \times 59 \mu\text{m}$ (length : width ratio 2.08 : 1); dorsal, lateral, and termino-lateral setae naked; remaining 3 terminal setae plumose; longest setae longer than urosome.

Rostral fold (fig. 3) well-indicated, broadly rounded. First antenna (fig. 4) 7-segmented, number of elements per segment 4s, 13s, 6s, 3s, 4s+1a, 2s+1a, 7s+1a (s = seta, a = aesthetasc). Segment 2 very elongate (c. 7 times as long as wide); segment 3 short; segment 4 more than twice as long as 3; segment 6 < 4 ; segment 7 short.

Second antenna (fig. 5) rather robust (segments 3 and 4 each slightly more than twice as long as wide). One small setule in middle of medial margin of segments 2 and 3; slightly larger seta on distal end of segments 3 and 4; terminal claw long (as long as segment 4), angularly bent.

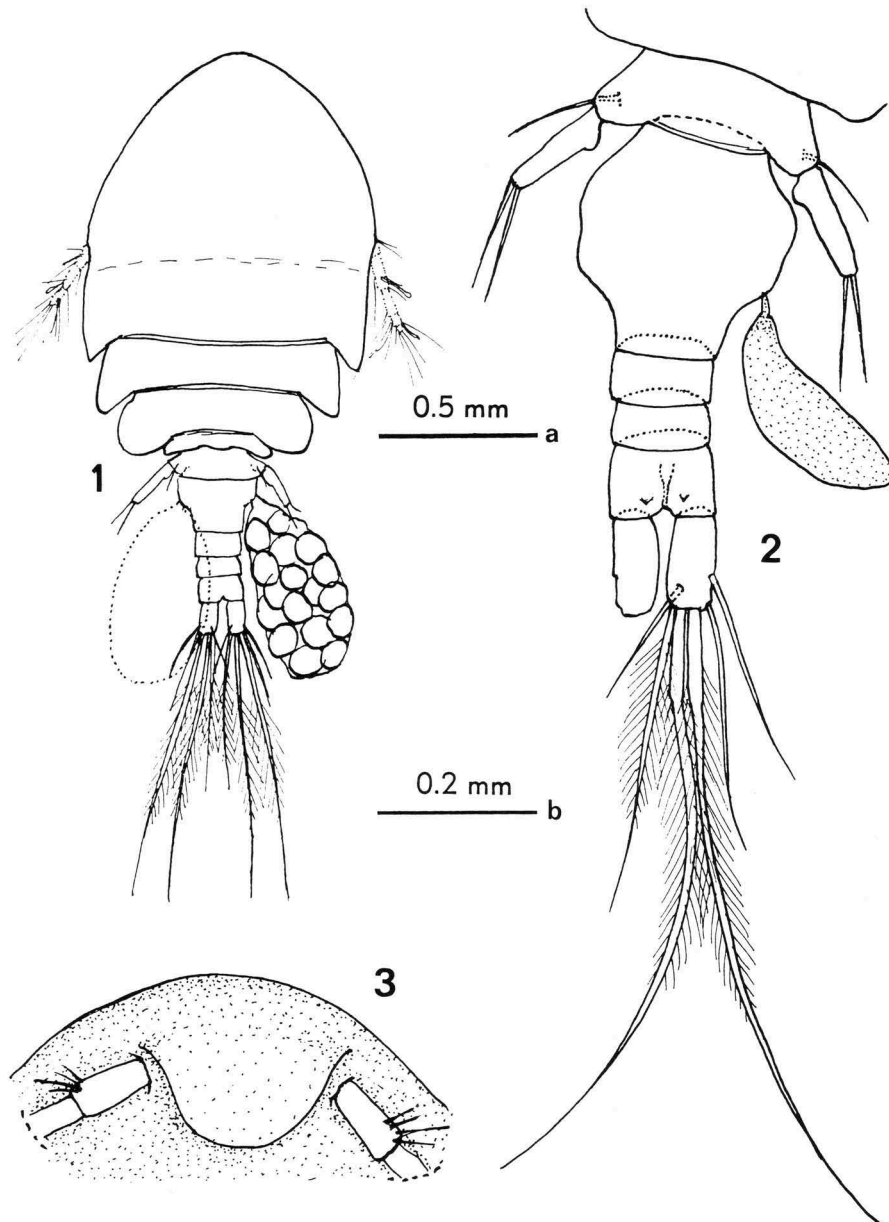
Labrum (fig. 6) deeply incised.

Mandible (fig. 7): Convex (= medial) side with 2 proximal, pointed teeth and a long terminal lash; concave (= lateral) side with 2 lobes: proximal, larger, lobe very finely denticulated; smaller distal lobe with c. 9 needle-like teeth, which are very much longer than those on proximal lobe.

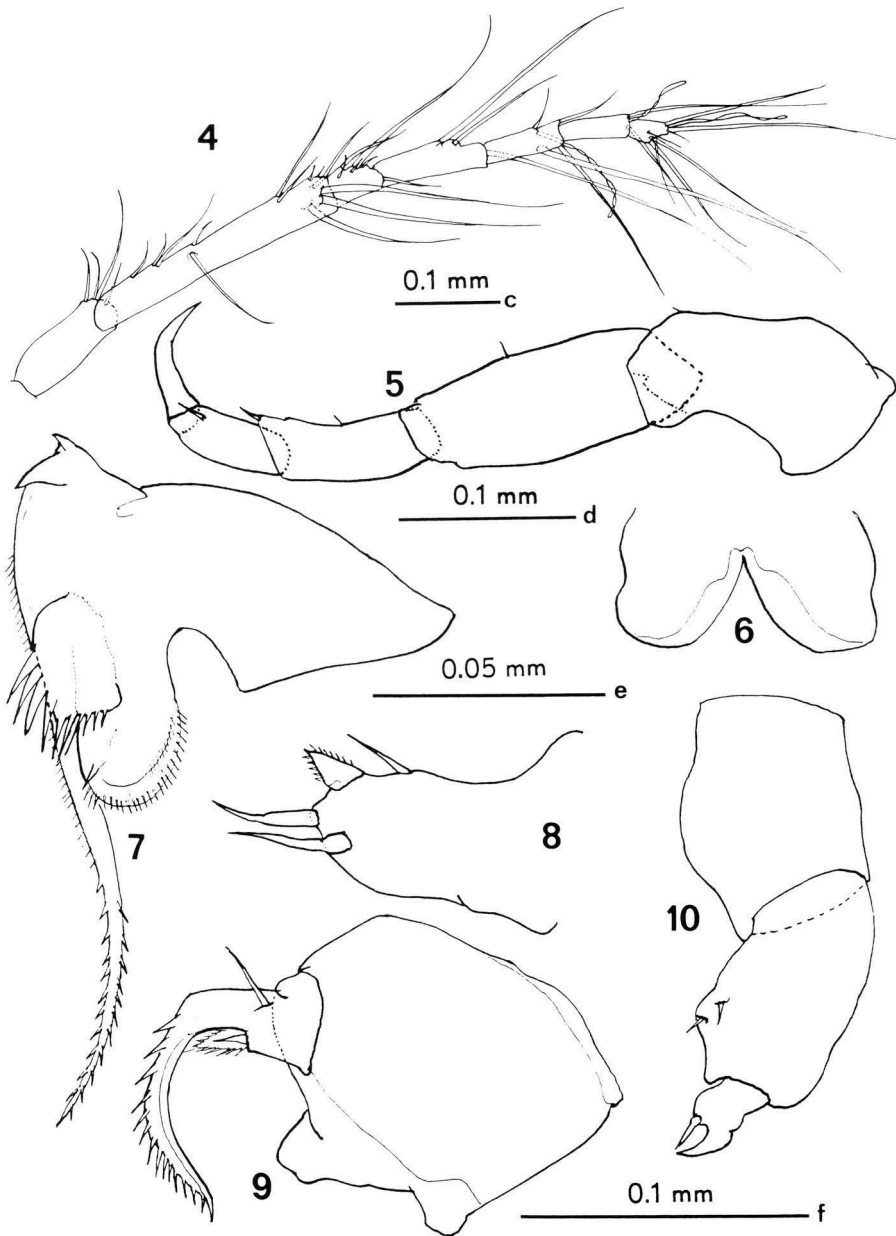
First maxilla (fig. 8) with 1 triangular (wedge-shaped) and 3 setiform elements.

Second maxilla (fig. 9): Basal segment unarmed; distal segment with 1 medioproximal, naked seta, 1 lateral, foliaceous spine, and curved terminal lash.

Maxilliped (fig. 10): Basal segment unarmed; second segment with 2 spi-



Figs. 1-3. *Anchimoligus cuneatus* spec. nov., ♀. 1, ovigerous specimen, dorsal (scale a); b, urosome, ventral, with attached spermatophore (b); 3, rostral fold, ventral (b).



Figs. 4-10. *Anchimoligus cuneatus* spec. nov., ♀. 4, first antenna (scale c); 5, second antenna (scale d); 6, labrum (d); 7, mandible (e); 8, first maxilla (e); 9, second maxilla (f); 10, maxilliped (f).

nules; third segment pseudo-cheliform, with humpbacked claw and naked spine.

Chaetotaxis formula of legs 1 to 4 (figs. 11-14):

	coxopod	basipod	exopod	endopod
P1	0-1	1-0	I-0;I-1;III-I-4	0-1;0-1;I-1-4
P2	0-1	1-0	I-0;I-0;III-I-5	0-1;0-2;I-II-3
P3	0-1	1-0	I-0;I-1;III-I-5	0-1;0-2;I-II-2
P4	0-1	1-0	I-0;I-1;II-I-5	0-1;II

Medial coxopodite seta feathered in P1 to P3, naked and short in P4. Lateral basipodite seta feathered in P1, naked in P2 to P4. Lateral exopodite spines of P2 to P4 of equal length. Spiniform processes well-developed on exopodite segments 1 to 3 of P1 to P4, on endopodite segments 2 and 3 of P1, on endopodite segments 1 to 3 of P2 and P3, and on endopodite segments 1 and 2 of P4. Terminal spines on endopodite of P4 relatively short.

Leg 5 (fig. 15) reaching to about middle of genital somite, 147 μ m long, 45 μ m wide at level of basomedial swelling; 2 terminal, naked setae, subequal to length of segment.

Male: Unknown.

Comparison with the other species of *Anchimolgus*. — The new species is distinguished from all others in the genus by the presence of a triangular, wedged-shaped spine on maxilla 1 (in all other species, this element is spiniform or setiform). Moreover, the great dissimilarity in dentition between the proximal and the distal lobe of the mandible is characteristic: most species show a fine and similar dentition on both lobes. Only *A. punctilis* Humes, 1978, shows a dissimilarity in dentition, but less pronounced than in the new species. *A. punctilis* can be distinguished at once by its very short 4th segment of antenna 2, and by a slightly shorter caudal ramus.

In addition, the following differences from the remaining species can be mentioned: *A. notatus* Humes, 1978, has a shorter caudal ramus, and a much more slender P5.

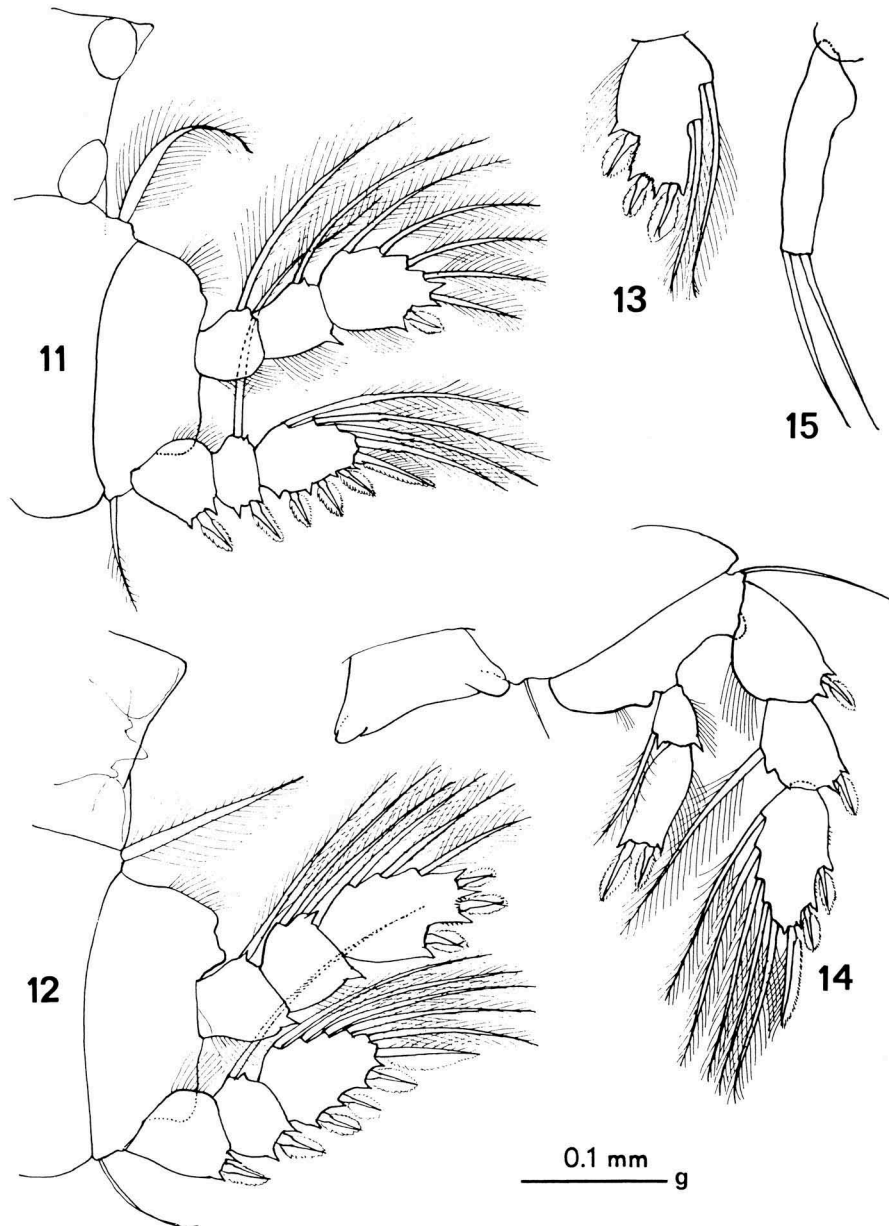
A. digitatus (Humes & Ho, 1968) has a much more slender caudal ramus (over 6 times as long as wide) and a very short P5.

A. pandus Humes, 1978, has an aberrant chaetotaxis of the 3rd exopodite segment of P4 (III-I-5 instead of II-I-5), and an oversized basolateral spine of the 3rd exopodite segment of leg 1, but is otherwise not unlike the new species.

In *A. prolixipes* (Humes & Ho, 1968) the 5th leg overreaches the genital somite, and is 6 to 7 times as long as wide.

A. tener Humes, 1973, shows fusion of segments 3 and 4 of antenna 2.

A. convexus Humes, 1978, differs in the shape of the genital somite, and in the length/width ratio of P5.



Figs. 11-15. *Anchimoligus cuneatus* spec. nov., ♀. 11, first leg; 12, second leg; 13, third endopodite segment of third leg; 14, fourth leg; 15, fifth leg (all scale g).

A. latens Humes, 1978, and *A. orectus* Humes, 1978, have very slender segments 3 and 4 of antenna 2.

A. contractus Humes, 1979a, agrees with the new species in the presence of teeth on the ventral surface of the anal somite (but has 4 teeth, placed over the implantation of the caudal rami); it differs markedly from *A. cuneatus* in the relative length of the segments of antenna 1 (segment 4 very short, segment 7 very long), and in the presence of only 2 (instead of 4) elements on maxilla 1.

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