

Fig. 18. *Anilocra soelae* n. sp., A-D, holotype, remainder female 15.5 mm (NTM Cr4244). A, dorsal view; B, lateral view; C, cephalon; D, frons; E, pleotelson, perpendicular view; F, pleon, lateral view; G, maxilla; H, maxilla apex; I, maxillule apex; J, mandible; K, antennule; L, antenna; M, pereopod 1; N, maxilliped article 3; O, pereopod 2; P, pereopod 4; Q, pereopod 7; R, uropod. Scale line represents 3.0 mm.

Description of female. Body about 2.8 times as long as wide, dorsum smoothly vaulted, coxae visible in dorsal view. Eyes about 0.5 width of cephalon. Pleonite 1 longest, pleonites 2–5 about equal in length; pleonites 1–4 becoming progressively narrower towards posterior. Lateral margins of pleonites 1–3 bent laterally; posterolateral margins of pleonite 5 acute. Pleotelson lateral margins weakly turned up, converging smoothly to rounded apex.

Antennule extending to posterior of eyes; article 3 anterodistal angle not produced. Antenna with 10 articles, extending to pereonite 2.

Mandible palp article 2 with distomedial margin lobate; article 3 with about 9 setae. Maxillule with 4 terminal spines. Maxilla with 2 spines each on medial and lateral lobe respectively. Maxilliped article 3 with 3 terminal spines.

Pereopod 1 dactylus with prominent nodule on anterior margin, weak nodule on posterior margin. Pereopods 2–4 with dactylus nodules progressively increasing in prominence; posterior margin of dactylus with 2 nodules. Pereopod 6 with 3 spines on propodus,

merus with single spine at posterodistal angle. Pereopod 7 propodus with 3 spines on palm, scattered small spine on medial margin.

Pleopods 3–5 with prominent, highly folded proximomedial lobe on endopod; peduncle lateral margin with prominent lobe. Endopods of pleopods 3 and 4 each with 3 weakly developed lobes, endopod of pleopod 5 with 3 large folded lobes. Uropod with rami rounded, subequal in length, extending clearly beyond posterior of pleotelson.

Colour. Pale tan with abundant brown chromatophores.

Size. Females 14.0–16.0 mm.

Remarks. This species is readily identified by the smoothly rounded pleotelson, uropods extending beyond the posterior margin of the pleotelson, pleonite 1 being longest, ventrolateral margins of pleonites 1–3 being bent upwards, and antennule article 3 not being produced.

The most similar species is *Anilocra dimidiata*, but *A. soelae* differs from that species in having a shorter

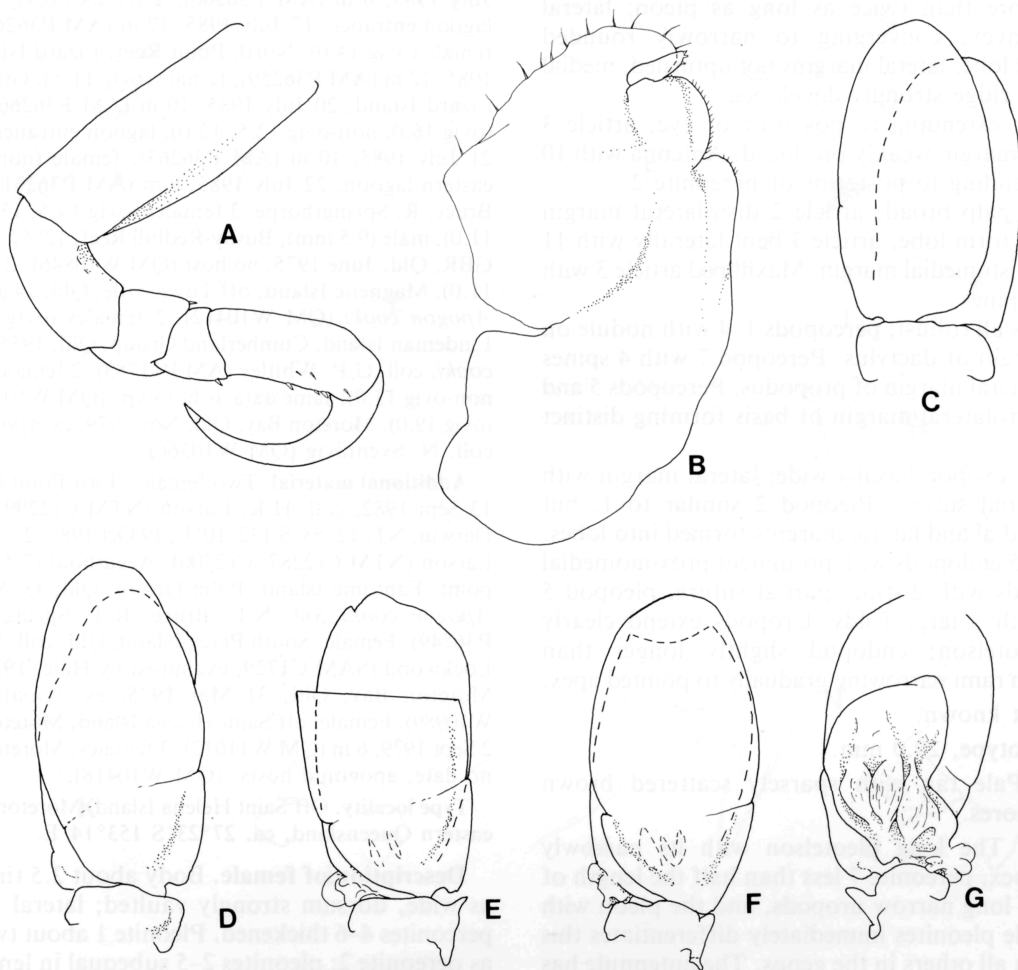


Fig. 19. *Anilocra soelae* n. sp., female 15.5 mm (NTM Cr4244). **A**, pereopod 6; **B**, maxilliped; **C**, right pleopod 1; **D-F**, left pleopods 2 to 4 respectively; **G**, left pleopod 5, posterior view.

antennule, more prominent pereopod nodules, an evenly rounded pleotelson, posterolateral margin of pleonite 5 not strongly produced and a shorter uropod exopod.

Host. Not known.

Distribution. North West Shelf, Western Australia.

Etymology. Named after the research vessel FRV *Soela*.

Anilocra koolanae n. sp.

Figs 20, 21

Material examined. HOLOTYPE: female, (ovig 29.0), off Koolan Island, WA, 8 Aug 1970, coll. F.C. van Ingen (WAM 598-85).

Type locality. Koolan Island, Yampi Sound, Northern WA, 16°08'S 123°45'E.

Description. Body about 3.0 times as long as wide. Eyes small, about 0.3 width of cephalon. Pereonite 7 less than half as long as pereonite 6. Pleonite 1 not visible in dorsal view. Pleonites with lateral margins strongly produced ventrally, concealing pleopod peduncles in lateral view. Pleotelson about twice as long as wide, more than twice as long as pleon; lateral margins convex, converging to narrowly rounded caudomedial lobe; lateral margins not upturned; medial longitudinal ridge strongly developed.

Antennule extending to posterior of eye, article 3 anterodistal margin weakly produced. Antenna with 10 articles, extending to posterior of pereonite 2.

Mandible palp broad, article 2 distolateral margin produced to form lobe; article 3 bent laterally with 11 setae along distomedial margin. Maxilliped article 3 with 3 terminal spines.

Pereopods all robust; pereopods 1-4 with nodule on anterior margin of dactylus. Pereopod 7 with 4 spines on posterolateral margin of propodus. Pereopods 5 and 6 with posterolateral margin of basis forming distinct keel.

Pleopod 1 exopod basally wide; lateral margin with obvious partial suture. Pleopod 2 similar to 1, but peduncle medial and lateral margins formed into lobes. Pleopods 3-5 endopods with prominent proximomedial lobe; exopods with distinct partial suture; pleopod 5 endopod with 3 large folds. Uropods extend clearly beyond pleotelson; endopod slightly longer than exopod; both rami narrowing gradually to pointed apex.

Male. Not known.

Size. Holotype, 29.0 mm.

Colour. Pale tan with sparsely scattered brown chromatophores.

Remarks. The long pleotelson with its narrowly produced apex, pereonite 7 less than half the length of pereonite 6, long narrow uropods, and the pleon with only 4 visible pleonites immediately differentiates this species from all others in the genus. The antennule has the anterodistal angle of article 3 produced, and the anterior margin of the dactylus of pereopods 1-4 have a nodule. These characters are also present in the *A.*

dimidiata - *A. leptosoma* complex of species, but *A. koolani* is readily separated from those species by the characters listed above.

Host. Known only from the type locality.

Etymology. The name is taken from that of the type locality.

Anilocra apogonae n. sp.

Figs 22, 23

Anilocra sp.—Monod, 1976: 857, figs 8-12.

Material examined. HOLOTYPE: female (ovig 19.5), off Saint Helena Is., Moreton Bay, Qld, 24 Nov 1981, ex *Apogon fasciata*, coll. R.C. Willan (QM W12181).

PARATYPES: female (ovig 12.5), Coral Bay, Cobourg Peninsula, NT, 11°12.0'S 132°03.0'E, May 1983, ex *Apogon cooki*, coll. N.L. Bruce, (NTM Cr4245). Female (non-ovig 16.0), north side of Prince of Wales Is., Torres Strait, 2 July 1976, from tide pools, coll. D. Brown & W. Ponder (AM P36258). Lizard Island Group, Qld, Northern Great Barrier Reef, all ex *Cheilodipterus quinquelineatus*: female (imm 8.5), north-west Palfrey Is., 14 July 1985, 6 m (AM P36262); 2 females (ovig 12.0, non-ovig 11.5), north-west Palfrey Is., 15 July 1985, 6 m (AM P36260); 2 females (ovig 13.0, 11.5), lagoon entrance, 17 July 1985, 17 m (AM P36264, P36265); female (ovig 14.0), North Point Reef, Lizard Island, 18 July 1985, 12 m (AM P36259); female (ovig 11.5), Granite Bluffs, Lizard Island, 20 July 1985, 10 m (AM P36266); 3 females (ovig 16.0, non-ovig 12.5, 12.0), lagoon entrance patch reef, 21 July 1985, 10 m (AM P36263); female (non-ovig 11.0), eastern lagoon, 22 July 1985, 8 m (AM P36261), coll. N.L. Bruce, R. Springthorpe. 3 females (ovig 14.5, 13.5, non-ovig 11.0), male (9.5 mm), Bushy-Redbill Reef, 12°57'S 150°05'E, GBR, Qld, June 1975, no host (QM W10846). 2 males (12.5, 11.0), Magnetic Island, off Townsville, Qld, 14 July 1976, ex *Apogon cooki* (QM W10412). 2 females (ovig 16.3, 15.5), Lindeman Island, Cumberland Group, Qld, 1935, ex *Apogon cooki*, coll. G.P. Whitley (AM P11783). 2 females (ovig 15.0, non-ovig 13.0), same data as holotype (QM W10360). Female (ovig 19.0), Moreton Bay, Qld, Nov 1979, ex *Apogon fasciata*, coll. N. Svernnivg (QM W10366).

Additional material. Two females, East Point Darwin, NT, 13 Sept 1982, coll. H.K. Larson (NTM Cr2299). 3 females, Darwin, NT, 12°58'S 132°10'E, 19 Oct 1981, 27 m, coll. H.K. Larson (NTM Cr2287, Cr2300). Aegathoid (7.5), north-east point, Fantome Island, Palm Group, Qld, 18 Apr 1986, on *Apogon cooki* coll. N.L. Bruce, R.T. Springthorpe (AM P36749). Female, South Percy Island, Qld, coll. Sergeant L. Lockwood (SAM C1729, examined by Hale, 1926). Female, Moreton Bay, Qld, 31 Mar 1975, ex "Goatfish"* (QM W10989). Female, off Saint Helena Island, Moreton Bay, Qld, 2 Sept 1979, 6 m (QM W11012). 3 females, Moreton Bay, Qld, no date, apogonid hosts. (QM W10418).

Type locality. Off Saint Helena Island, Moreton Bay, south-eastern Queensland, ca. 27°23'S 153°14'E.

Description of female. Body about 2.5 times as long as wide, dorsum strongly vaulted; lateral margins of pereonites 4-6 thickened. Pleonite 1 about twice as long as pereonite 2; pleonites 2-5 subequal in length; dorsal posterolateral margin of pleonites 4 and 5 strongly produced, acute. Pleotelson about 1.5 times as long as wide, lateral margins strongly bent dorsally; posterior

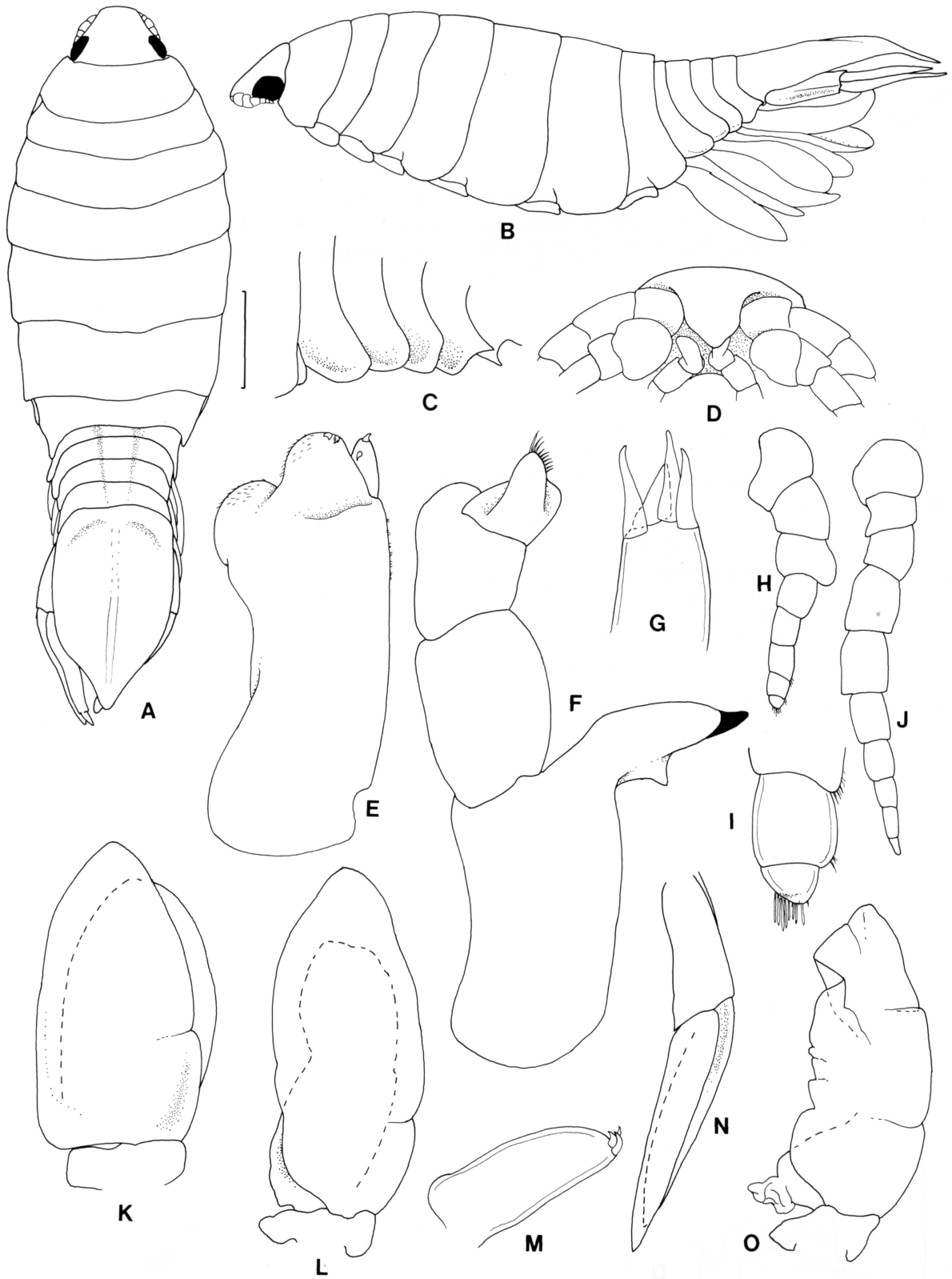


Fig. 20. *Anilocra koolanae* n. sp., holotype. A, dorsal view; B, lateral view; C, pleonites, lateral view; D, frons; E, maxilla; F, mandible; G, maxillule apex; H, antennule; I, antennule apex; J, antenna; K, pleopod 1; L, pleopod 2; M, maxilliped article 3; N, uropod; O, pleopod 3. Scale line represents 4.0 mm.

margin laterally indented, then forming broadly rounded lobe.

Antennule extending to posterior of eye; anterodistal margin of article 3 not produced. Antenna extending to posterior of pereonite 1, composed of 8 articles; article 5 with 3 feebly plumose setae at posterodistal angle.

Mandible palp article 2 lateral margin extended, forming lobe; terminal article with apex subtruncate, lateral margin weakly folded. Maxilla with 2 spines each on medial and lateral lobe respectively. Maxilliped article 3 with 3 spines.

Pereopod 1 dactylus without nodules; pereopods 2–4 with prominent nodule on dactylus anterior margin, less prominent nodule on dactylus posterior margin; dactylus progressively increasing in length from pereopod 1–4. Pereopod 6 carpus with 1 spine at posterodistal angle; propodus 4 spines on posterior margin and 2 small submarginal spines. Pereopod 7 propodus with 4 spines on posterior margin and 3 submarginal spines.

Pleopods 3–5 proximomedial lobe large, convoluted. Pleopod 3 endopod without folds, pleopod 4 endopod with weak folds, pleopod 5 endopod with 3 simple folds. Uropod rami extending beyond posterior of pleotelson; exopod about two thirds width of, and slightly larger than endopod, curving medially; endopod straight, distal margin broadly rounded, both margins convex.

Male. Maxilliped article 3 with 4 spines; maxillule

with 4 terminal spines. Pleopods similar to female, but pleopod 2 with appendix masculina, and reduced folding on endopods of pleopods 3–5. Uropod exopod proportionally longer than in female. Pereopods 2–4 with nodule only on anterior margin of dactylus.

Colour. All specimens densely covered by brown chromatophores; ground colour pale yellow.

Size. Ovigerous females: 11.5–19.5 mm; non-ovigerous females: 11.0–16.0 mm; males 9.5–12.5 mm.

Variation. Body width varies from 2.5–2.8 times as long as wide. Nodules on anterior margin of the dactylus of pereopods 2–4 may vary in size, but are always conspicuously large.

Remarks. Commonly encountered on apogonid hosts, *A. apogonae* is easily recognised by the thickened margins of pereonites 5–7, absence of dactylus nodules on pereopod 1 and their prominence on pereopods 2–4, pleonite 1 being twice as long as 2, acute posterolateral angles to pleonites 4 and 5, and the strongly upturned pleotelson lateral margins.

The figures of *Anilocra* sp. from an apogonid host given by Monod (1976) agree entirely with the present material.

Hosts. *Apogon cooki*, *A. fasciatus* and *Cheilodipeturus quinquelineatus*; sight record on *Apogon cyanosoma*, Palm Group. At Lizard Island there was only ever one isopod per host, always situated in a dorsal position above the eyes. Monod (1976) recorded *Apogon kallopterus*.

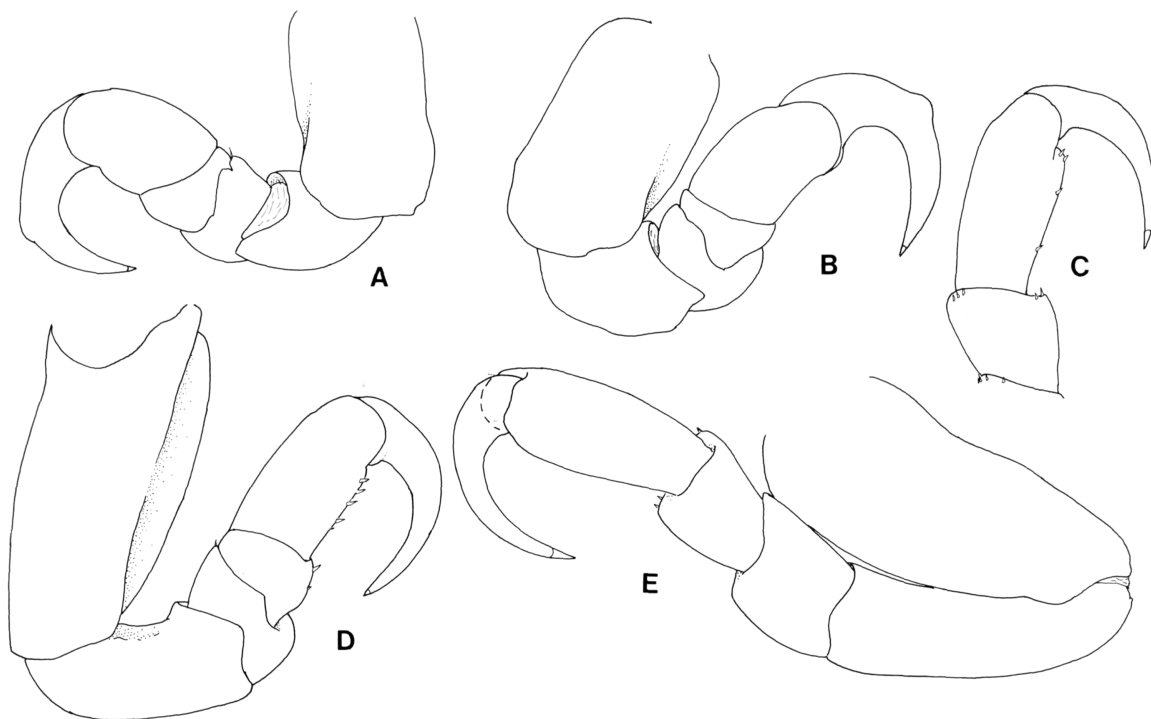


Fig. 21. *Anilocra koolanae* n. sp., holotype. A, pereopod 1; B, pereopod 2; C, pereopod 7, medial view of distal articles; D, pereopod 6; E, pereopod 17.

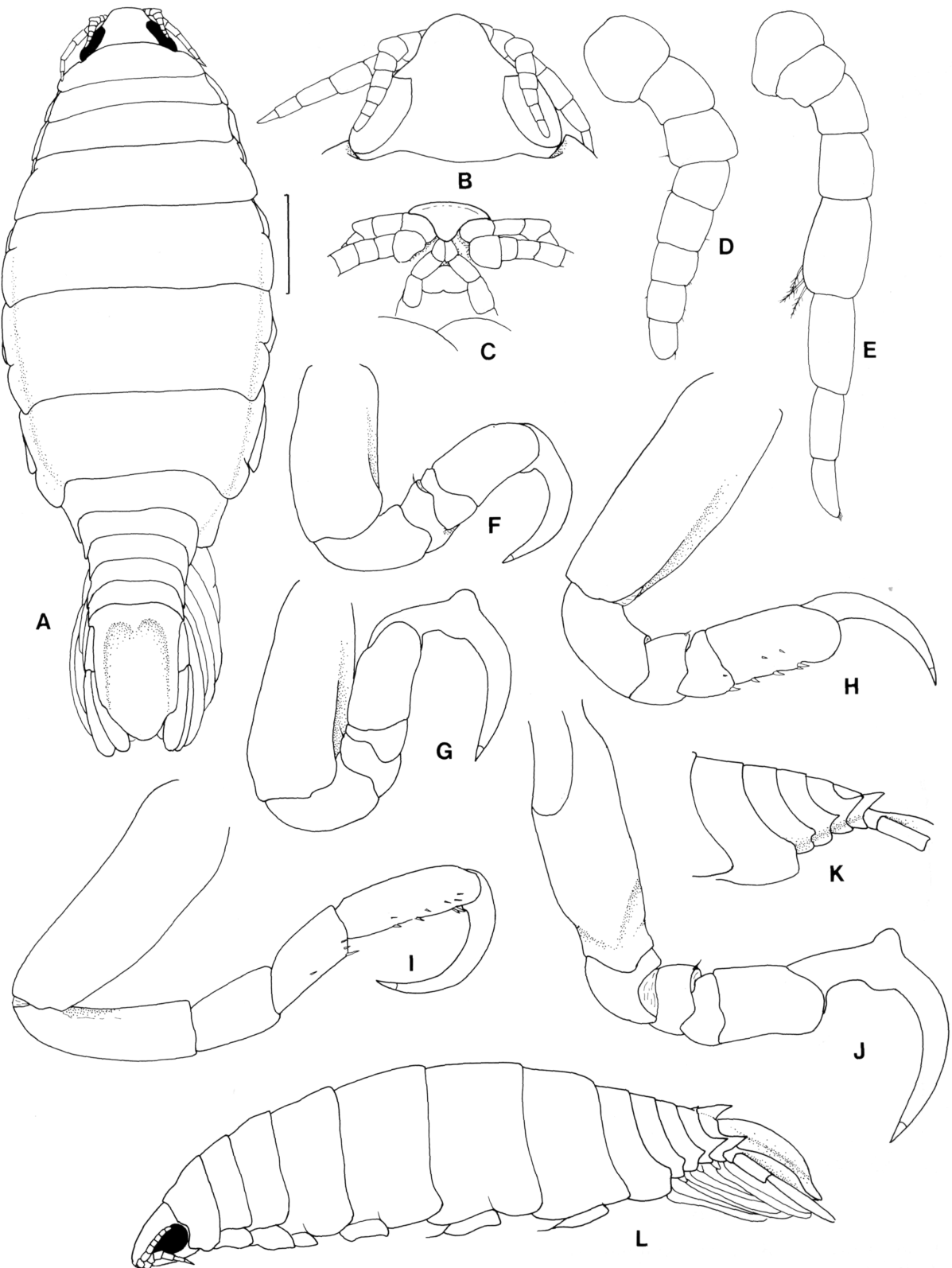


Fig. 22. *Anilocra apogonae* n. sp., A-C, K, L, holotype, remainder female 15.0 mm (QM W10360). A, dorsal view; B, cephalon; C, frons; D, antennule; E, antenna; F, pereopod 1; G, pereopod 2; H, pereopod 6; I, pereopod 7; J, pereopod 4; K, pleon, lateral view; L, lateral views. Scale line represents 3.0 mm.

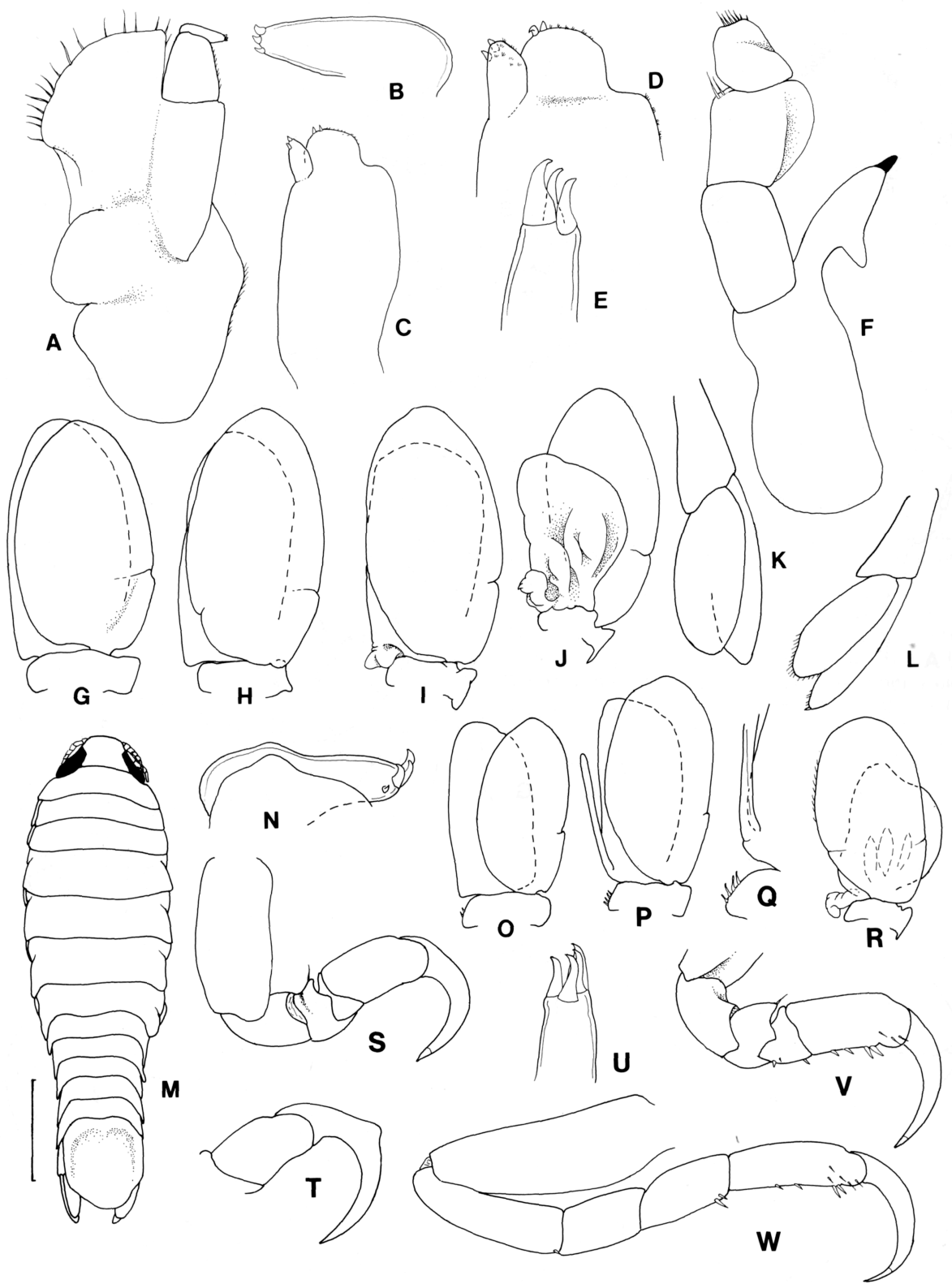


Fig. 23. *Anilocra apogonae* n. sp., A–K, female 15.5 mm (QM W10360); L–W, male 9.5 mm (QM W10846). **A**, maxilliped; **B**, maxilliped article 3; **C**, maxilla; **D**, maxilla apex; **E**, maxillule apex; **F**, mandible; **G–J**, pleopods 1 to 3, 5 respectively; **K**, uropod; **L**, uropod; **M**, dorsal view; **N**, maxilliped apex; **O**, pleopod 1; **P**, pleopod 2; **Q**, pleopod 2, medial margin detail; **R**, pleopod 5; **S**, pereopod 1; **T**, pereopod 2, propodus dactylus; **U**, maxillule apex; **V**, pereopod 6, distal articles; **W**, pereopod 7. Scale line represents 2.0 mm.

Distribution. On the mainland coast and continental islands, but not recorded from outer reefs. Cobourg Peninsula and Darwin, Northern Territory. Torres Strait, Lizard Island, Palm Group, Magnetic Island, Townsville, Lindeman Island, South Percy Island and Moreton Bay, Queensland. Also Ambon, Indonesia (Monod, 1976).

Etymology. The name is derived from that of the type host genus.

Anilocra longicauda Schiödte & Meinert

Figs 24, 25

Anilocra longicauda Schiödte & Meinert, 1881: 113, pl. 8 figs 7, 8.—Monod, 1934: 12, pls 20, 21, 25A-C; Trilles, 1975a: 308, pl. 1 figs 4, 5.

Anilocra dimidiata.—Richardson, 1910: 18 (part).

Unconfirmed: Gerstaecker, 1882: 261; Nierstrasz, 1915: 83; 1931: 129; Serène, 1937: 69.

Material examined. LECTOTYPE: female (ovig 35.0), Singapore, 9 Mar 1872, udvendig paa Hardit af Fisk, coll. H. Koch (ZMC). PARALECTOTYPE: female (ovig 27.0), Poulo Condor (Cochin chine), R. Germain, 446-68, label No. 43 (male missing) (MNHN Is. 504).

Non-type: female (ovig 41.0), north of Port Hedland, WA, 18/19 Apr 1983, depth 80 m, coll. R. Williams (NTM Cr2292). Female (ovig 39.0), Marion Reefs, Qld, ca. 19°15'S 152°13'E, 23 Aug 1977, ex *Priacanthus* sp., depth 8 m, coll. N. Coleman (AM P36286). 2 females (ovig 51.0, non-ovig 32.0), Swains Reefs, Qld, ca. 22°4'S 152°30'E, 6 June 1967, ex *Plectorhynchus goldmani*, coll. B. Goldman (AM P36267).

Additional material. Female (head missing), North West Shelf, WA, 19°5.5'S 118°25.5'E, 2 June 1985, coll. B.C. Russell (NTM Cr4246). 2 females, North West Shelf, WA, 19°08.6'S 118°03.5'E, 16 April 1983, depth 82–84 m, on *Plectorhynchus pictus*, coll. P. Blyth on FRV *Soela* (NTM Cr2311). 2 females, Krakatua Island, Indonesia, 6°06'S 105°26'E, 15 Sept 1984, no host. La Trobe University 1984 Krakatua Expedition (NMV J12952, one at Museo Zoologicum, Bogor, Indonesia). 2 females (USNM 40997, 40999), Philippines, examined by Richardson (1910).

Types. Schiödte & Meinert (1881) examined 5 specimens, listing 3 from Singapore and 2 from Poulo Condor. Only two type specimens were located and the specimen from Singapore is designated as lectotype. The type specimens examined here do not agree with Schiödte & Meinert's lengths for ovigerous females (41–43.5 mm) but rather to the length for non-ovigerous females (31–37.5 mm).

Type locality. Singapore, 1°15'N 103°50'E, the locality of the lectotype.

Description of female. Body about 3.5 times as long as wide, dorsal surface strongly vaulted; coxae scarcely visible in dorsal view. Rostrum anterior margin weakly indented in dorsal view. Eyes occupying about 0.4 width of cephalon. Pleon about 0.6 width of pereon. Pleonite 1 largely concealed by pereonite 7; posterolateral margins of pleonites 1–3 rounded; dorsal posterolateral margins of pleonite 5 acute, weakly produced.

Pleotelson flat, lateral margins not upturned; lateral margins curving to form subacute apex.

Antennule extending to posterior of cephalon. Antenna with 10 articles, extending half way along pereonite 1.

Mandible palp article 2 distomedial margin produced to form lobe; article 3 medial margin folded, lateral margin with 14 setae. Maxillule with 4 terminal spines. Maxilla with 2 spines, each on medial and lateral lobes respectively. Maxilliped article 2 with 2 terminal spines.

Pereopods 1–4 short, dactylus robust, abruptly curved, without nodules. Pereopods 5–7 with dactylus smoothly curved.

Pleopods prominent in dorsal view. Pleopod 1 with 4 coupling hooks on peduncle medial margin. Pleopods 3 and 4 each with folded endopod; pleopod 5 endopod with massive and complex folding. Pleopods 3–5 endopods with prominent proximomedial lobe, peduncle lateral margin with small proximal appendiculate lobe. Uropods not extending beyond pleotelson, exopod slightly shorter than endopod, both rami bluntly rounded.

Male. None examined.

Colour. Very dark brown, appearing black.

Size. Females 27.0–31.0 mm.

Variation. The type material and the smaller Australian specimens (NTM Cr2311, 23.0 and 30.0 mm) have the pleotelson more broadly rounded than the large specimens from *Priacanthus* and *Plectorhynchus*. The non-ovigerous female (AM P36286) had 3 spines on maxilliped article 3, 3 spines on the maxillule and more spines on pereopod 7.

Remarks. This large species is easily recognised by the short and abruptly recurved anterior pereopod dactyls which totally lack nodules, short antenna, pleonite 1 being largely concealed by pereonite 7, and the long and flat pleotelson.

Monod (1934) included *Anilocra cavicauda* Richardson in the synonymy for *A. longicauda*, this later being followed by Trilles (1975). Examination of the type of *A. cavicauda*, shows it to be abundantly distinct from *A. longicauda* with nodulose pereopods, straight sided and upturned pleotelson lateral margins, and slender uropods extending beyond the pleotelson. Supplementary notes and figures for *A. cavicauda* are given elsewhere in this work.

Hosts. *Plectorhynchus goldmani*, *Diagramma picta* and *Priacanthus* sp.; sight record on caudal peduncle of *D. picta* at Lizard Island.

Distribution. Swains Reefs, Great Barrier Reef, Marion Reef, Australian Coral Sea; North West Shelf of Western Australia; Krakatua, Indonesia; previous records from Singapore (Schiödte & Meinert, 1881), Annan (Monod, 1934) and Poulo Condor, Vietnam (Schiödte & Meinert, 1881); Philippines (Richardson, 1910, as *A. dimidiata*).

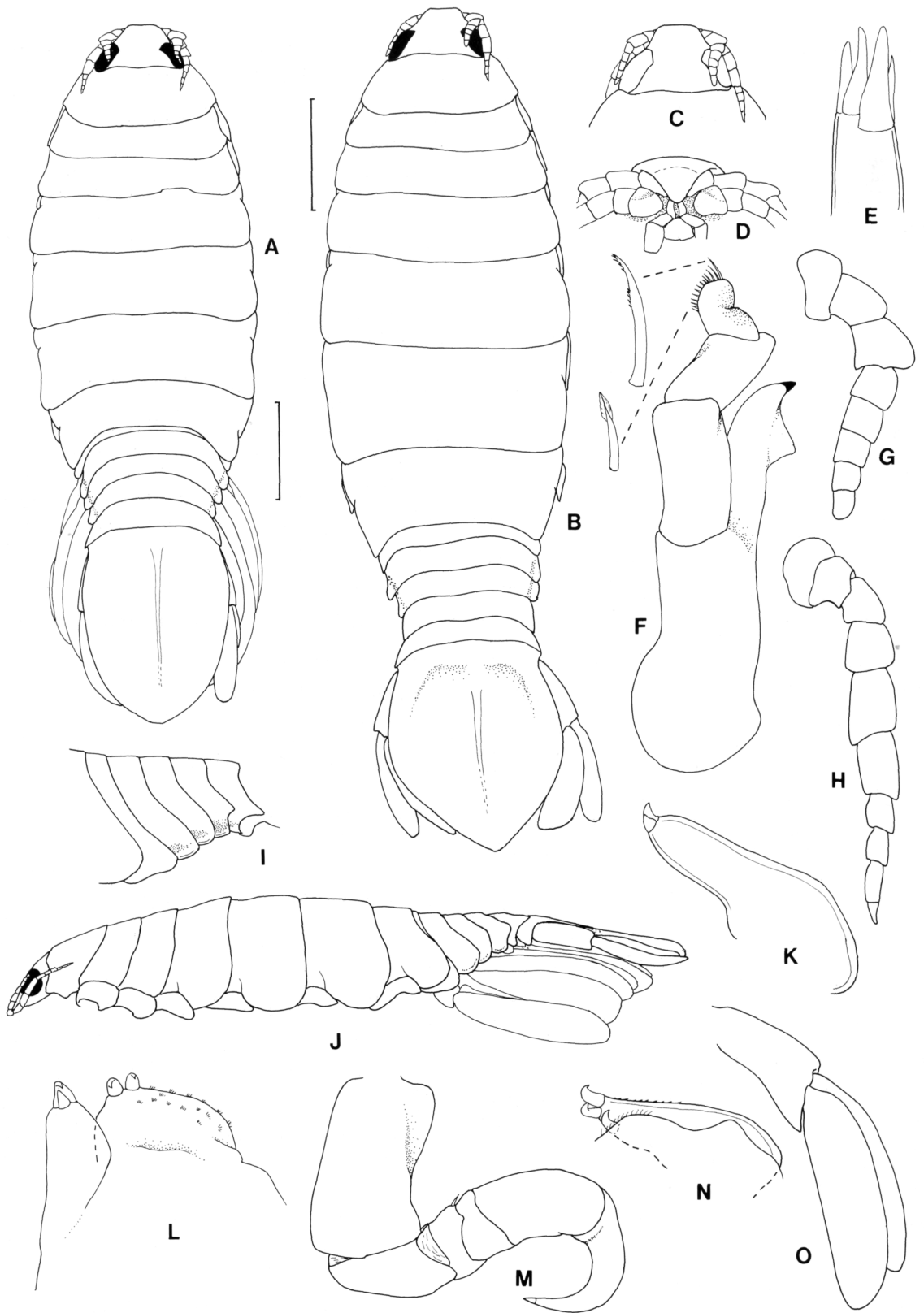


Fig. 24. *Anilocra longicauda*, A, J, lectotype; N, female 32.0 mm, Swains (AM P36267); remainder female 39.0 mm, ex *Priacanthus* (AM P36286). A, dorsal view; B, dorsal view; C, cephalon; D, frons; E, maxillule apex; F, mandible; G, antennule; H, antenna; I, pleon, lateral view; J, lateral view; K, maxilliped article 3; L, maxilla apex; M, pereopod 1; N, maxilliped article 3; O, uropod. Scale lines represent 5.0 mm.