

13 families (Trilles, 1975a). *Anilocra monoma* from Kuwait was recorded from 4 host species in 4 families (Bowman & Tareen, 1983), a pattern inconsistent with

that of other tropical *Anilocra*. *Anilocra monoma* has no recorded sympatric congeners, and again, this may allow it to utilise a wider array of hosts.

Table 1. Australian species of *Anilocra* with their recorded hosts (* = unconfirmed record; † = isopod sight record; GBR = Great Barrier Reef).

ISOPOD	HOST	DISTRIBUTION	
<i>A. apogonae</i>	Apogonidae	<i>Apogon cooki</i>	northern and eastern Australia
		<i>Apogon</i> species	Palm Group, GBR
		<i>Apogon fasciata</i>	Moreton Bay
		<i>Apogon cyanosoma</i> †	Palm Group, GBR
		<i>Cheilodipterus quinquelineatus</i>	northern GBR
<i>A. dimidiata</i>	Nemipteridae Leiognathidae	<i>Nemipterus</i> * sp.	Gulf of Carpentaria
		<i>Leiognathus bindus</i>	eastern Queensland
<i>A. leptosoma</i>	Clupeidae	<i>Nematalosa come</i>	eastern Queensland
<i>A. longicauda</i>	Priacanthidae Haemulidae	<i>Nematalosa erebi</i>	southern Queensland
		<i>Priacanthus</i> sp.	GBR
		<i>Plectorhynchus goldmani</i>	Swains Reefs, GBR
<i>A. nemipteri</i>	Nemipteridae	<i>Diagramma picta</i>	North West Shelf; Lizard Island†, GBR
		<i>Nemipterus virgatus</i>	North West Shelf
		<i>Nemipterus tolu</i> *	Gulf of Carpentaria
		<i>Scolopsis bilineatus</i>	GBR
		<i>Scolopsis margaritifera</i>	Lizard Island, GBR
		<i>Scolopsis monogramma</i>	Palm Group, GBR
		<i>Pentapodus setosus</i>	Palm Group, GBR
		<i>Pomacentrus jerdoni</i>	North West Shelf
		<i>Pomacentrus amboinensis</i>	Wainig Reef, GBR
		<i>Pomacentrus lepidogenys</i>	Palm Group, GBR
<i>A. pomacentri</i>	Pomacentridae	<i>Pomacentrus melanochir</i>	Lizard Is., GBR
		<i>Pomacentrus melanopterus</i>	Palm Group, GBR
		<i>Pomacentrus moluccensis</i>	Palm Group, GBR
		<i>Pomacentrus pavo</i> †	Lizard Is., GBR
		<i>Chromis atripes</i>	Carter Reef, GBR
		<i>Chromis margaritifera</i>	Myrmidon Reef, GBR
		<i>Chromis nitidus</i>	Capricorn Group, GBR
		<i>Neopomacentrus violascens</i> †	Palm Group, GBR

Key to Australian Species of *Anilocra*

1. Pereopods 2-4, or 1-4 with nodules on dactylus. 2
 —Pereopods 1-4 without nodules on dactylus. 9
2. Antennule article 3 anterodistal margin produced. 3
 —Antennule article 3 anterodistal margin not produced. 8
3. Pleonite 1 concealed by pereonite 7; uropod apices acute. *A. koolanae*
 —Pleonite 1 not concealed by pereonite 7; uropod apices rounded. 4
4. Pleotelson lateral margins flat or weakly turned up; pereopods 1-4 with 3 dactylus nodules. 5
 —Pleotelson lateral margins upturned; pereopods 1-4 with only anterior dactylus nodule conspicuous. 7
5. Body about 4.0-4.5 times as long as wide; antennule article 3 strongly produced, 2.0 times as wide as long. *A. alloceraea*
 —Body less than 4.0 times as long as wide; antennule article 3 weakly produced, 1.2-1.4 times as wide as long. 6
6. Pleotelson ovate, lateral margins converging smoothly to caudomedial point; pleonite 1 lateral margin posteriorly produced. *A. leptosoma*

- Pleotelson lateral margins weakly convex, posterior margin biconcave, distinct from lateral margin; pleonite 1 lateral margin not posteriorly produced. . . . *A. caudata*
7. Antenna extending to posterior of pereonite 2; pleonite 5 dorsal posterolateral angle strongly produced, acute. . . . *A. dimidiata*
- Antenna not extending to posterior of pereonite 2; pleonite 5 dorsal posterolateral angle weakly produced. . . . *A. nemipteri*
8. Pereopod 1 dactylus without nodules; pleonites 4 and 5 dorsal posterolateral angles produced, acute; pleotelson posterior margin distinct from lateral margin. . . . *A. apogonae*
- Pereopod 1 dactylus with nodules; pleonite 5 only with dorsal posterolateral angle produced; pleotelson margins smooth rounded. . . . *A. soelae*
9. Antennule article 3 anterodistal margin produced. . . . 10
- Antennule article 3 anterodistal margin not produced. . . . 11
10. Pleotelson ovate, widest medially; uropods not extending beyond posterior of pleotelson; pereopods 1–4 with short robust dactylus (Fig. 25A). . . . *A. longicauda*
- Pleotelson widest anteriorly; uropods extending beyond posterior of pleotelson; pereopods 1–4 with long dactylus (Fig. 26K). . . . *A. ankistra*
11. Antenna extending to pereonite 3; body sub-parallel in shape; rostrum weakly developed. . . . *A. morsicata*
- Antenna extending to anterior of pereonite 2; body ovate in shape; rostrum distinct. . . . *A. pomacentri*

Anilocra alloceraea Koelbel

Figs 4, 5

Anilocra alloceraea Koelbel, 1878: 407, pl. 2, figs 1a-e.—
Miers, 1880: 463.

Material examined. 11 females (ovig 20.0, 19.0, 18.0, 17.5, 17.0, non-ovig 17.5, 16.0, 15.5, 13.0), Batavia (= Jakarta), Indonesia, Dec 1928, op *Stolephorus indicus* (RMNH 1330). 3 females (ovig 21.0, 17.5, 17.0, non-ovig 18.0), Balikpapan Harbour, East Kalimantan, Indonesia, 26 Aug 1976, from mangrove fishes (AM P36750). Female (ovig 22.0), off Orontes Reef, Arafura Sea, NT, 11°50.0'S, 132°04.3'E, 4 Aug 1986, trawled 20–24 m (NTM 4111).

TYPES. Some of Koelbel's (1878) other material is held at the Naturhistorisches Museum, Vienna, but of the specimens I have examined I have been unable to identify any types of *A. alloceraea*.

Type locality. Sumatra Sea (Koelbel, 1878).

Description of female. Body about 4.5 times as long as wide; dorsal surface smoothly domed. Pleonite 1 longest, posterolateral margins weakly produced; pleonites 2–4 subequal in length, posterolateral margins rounded; pleonite 5 with dorsal posterolateral margin acute, weakly produced. Pleotelson with lateral margins straight, upturned; posterior margin bisinuate, with broad caudomedial lobe, provided with short marginal setae.

Antennule not extending beyond posterior of eye, with 8 articles; article 3 with anterior margin strongly produced. Antenna extending to posterior of pereonite 1, with 10 articles, articles 2 and 3 obviously (about 0.6) narrower than article 1.

Mandible palp article 3 with about 11 setae on distal margin; article 2 medial margin weakly lobate. Maxillule with 4 terminal spines. Maxilla with 2 spines each on medial and lateral lobes respectively. Maxilliped article 3 with 3 terminal spines.

Pereopod 1 with large nodule on dactylus anterior margin, posterior margin with single nodule; pereopods 2–4 with prominent nodule on anterior margin, and 2 nodules on posterior margin of dactylus; nodules increasing in size from pereopods 2 to 4.

Pleopod rami slender, elongate (pleopod 1 exopod 2.5 times as long as wide; pleopod 2, 2.3; pleopods 3 and 4, 2.5); endopod of all pleopods shorter than exopod. Pleopods 3–5 with endopod proximomedial lobe prominent; pleopods 3 and 4 endopods each with small lobes; endopod of pleopod 5 massively folded. Uropod rami subequal in length, extending beyond posterior of pleotelson; distomedial margin of both rami with setae; exopod medial margin convex, lateral margin straight, apex narrowly rounded; endopod apex broadly rounded.

Male. Not known.

Colour. Pale creamy yellow, brown chromatophores over dorsal surfaces.

Size. Females 13.0–23.5 mm; Koelbel (1878) recorded his specimen at 29 mm.

Remarks. Miers (1880) first questioned the validity of *Anilocra alloceraea* suggesting that it could be a synonym of *A. leptosoma*, and later workers (Monod,

1934; Trilles, 1975) accepted this synonymy. There are numerous differences between the two species, several of which are clearly illustrated in Koelbel's (1878) figures. These are: the body 4.5 times longer than wide (*A. leptosoma*, 3.5); pleonite 1 long (short); lateral margins of pleotelson turned up (flat); posterior margin of pleotelson bisinuate with broad caudomedial lobe (smoothly curving to small caudomedial lobe);

antennule article 3 strongly produced (moderately produced); pereopod 1 anterior nodule prominent (pereopod 1 nodule weak).

Anilocra caudata differs from *A. alloceraea* by having the pleotelson posterior margin acutely angled, pleotelson lateral margins weakly turned up, pleonite 1 short, antennule article 3 weakly produced, and a more ovoid body shape.

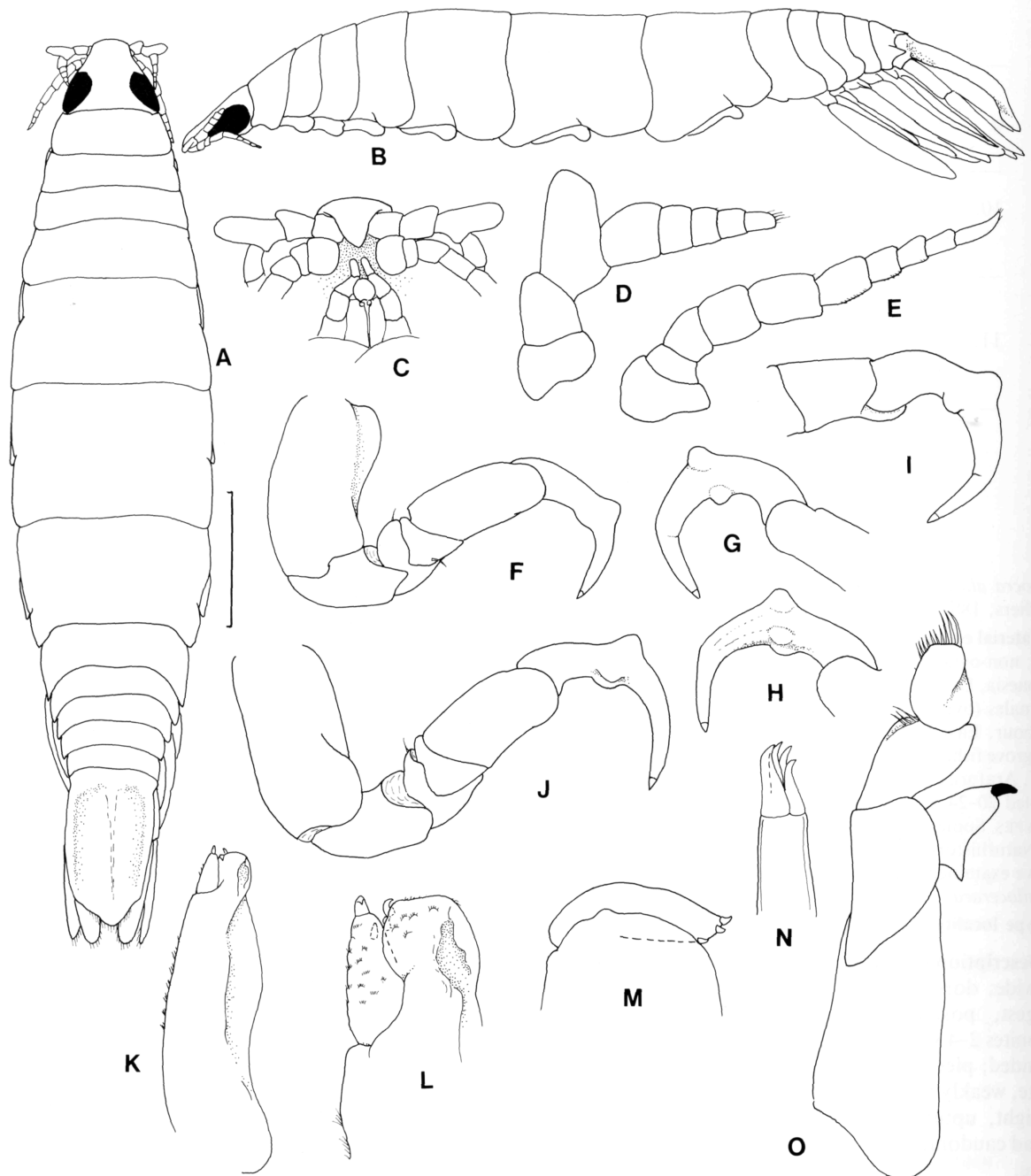


Fig. 4. *Anilocra alloceraea*, A-C, female 20.0 mm, remainder female 19.0 mm (RMNH 1330). A, dorsal view; B, lateral view; C, frons; D, antennule; E, antenna; F, pereopod 1; G, pereopod 4, dactylus, lateral view; H, pereopod 4, dactylus, posterior perspective; I, pereopod 4, dactylus, medial view; J, pereopod 2; K, maxilla; L, maxilla apex; M, maxilliped article 3; N, maxillule apex; O, mandible. Scale line represents 3.0 mm.

Hosts. Indonesian material recorded from *Stolephorus indicus* (F. Engraulidae).

Distribution. Jakarta, Indonesia; in Australia from Orontes Reef, Cobourg Peninsula, Northern Territory.

Anilocra cavicauda Richardson

Fig. 6

Anilocra cavicauda Richardson, 1910: 18, fig. 17.—Nierstrasz, 1931: 129. Not *Anilocra cavicauda*.—Hale, 1926: 210, fig. 7 (= *Anilocra nemipteri*).

Material examined. HOLOTYPE: Female (ovig 31.0), Pandanon Island, Philippines, 23 March 1909, coll. U.S. Bureau of Fisheries Albatross Philippine Expedition, 1907-1908 (USNM 40936).

Descriptive notes. Body about 3.4 times as long as wide. Pleonite 1 posterolateral margins not produced, pleonites 2-4 with posterolateral margins rounded; pleonite 5 with dorsal posterolateral margins acute.

Pleotelson lateral margins weakly turned up, posterior margin tapering to narrowly rounded caudomedial point.

Antennule article 3 produced. Antenna extending to posterior of pereonite 1. Pereopods 1-4 with weakly developed nodule on dactylus anterior margin. Uropods extending to posterior of pleotelson, apices acute; exopod distinctly shorter than endopod.

Remarks. Monod (1934) included *A. cavicauda* in his synonymy for *A. longicauda*, this being later followed by Trilles (1975) although neither author gave their reasons. The figures given here for both species show that they cannot be considered conspecific, differing in numerous aspects of their morphology. *Anilocra cavicauda* has pereopod dactyli 1-4 with a nodule on the anterior margin, while in *A. longicauda* the pereopod dactyli lack nodules and are far shorter. Antennule article 3 of *A. cavicauda* is produced, and is not produced in *A. longicauda*. Lastly the figures given here illustrate the very different pleotelson shape of the two species.

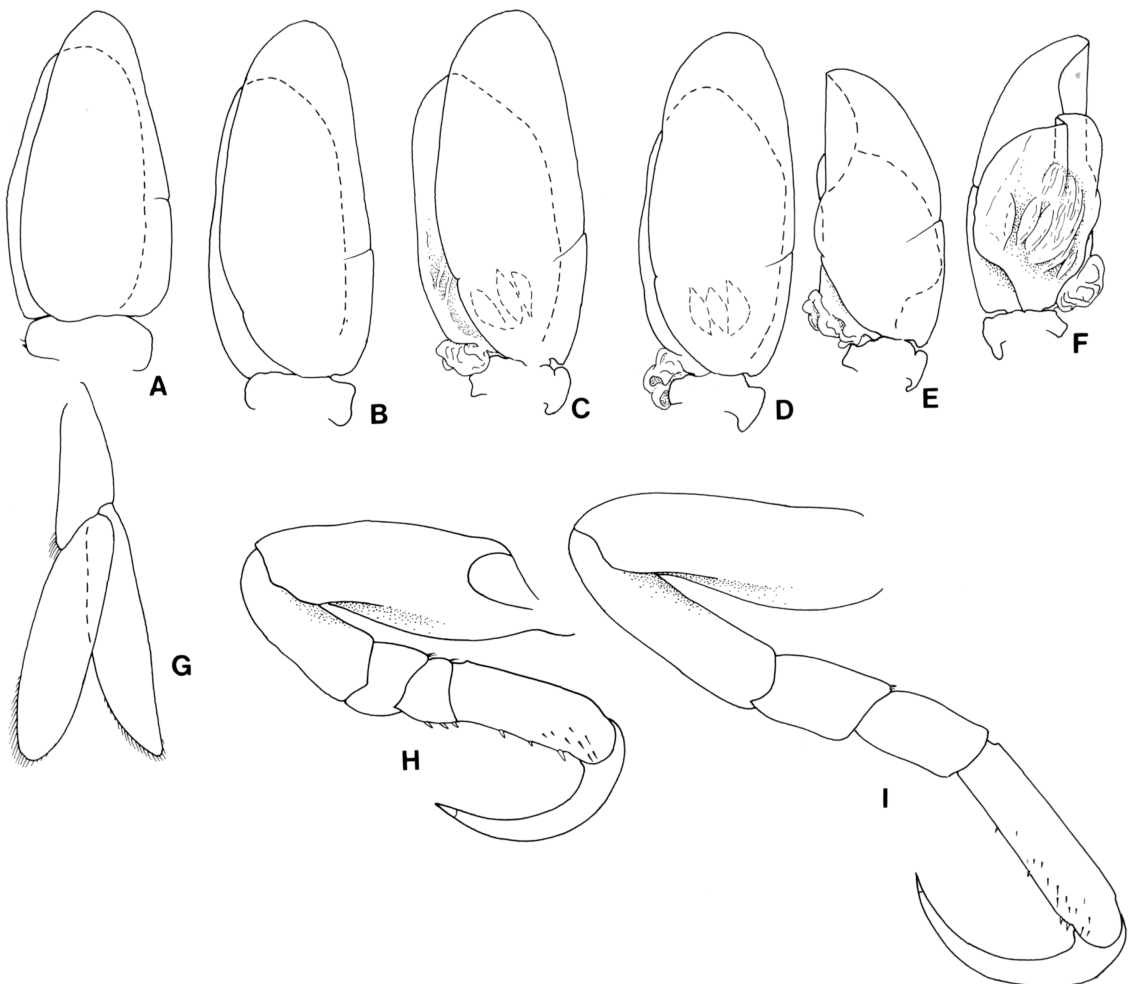


Fig. 5. *Anilocra alloceraea*, female, 19.0 mm (RMNH 1330). A-E, pleopods 1 to 5 respectively; F, pleopod 5, posterior view; G, uropod; H, pereopod 6; I, pereopod 7.

Hale (1926) recorded this species from Australia, but his record is a misidentification, the specimens being *A. nemipteri*.

Hosts. Not known.

Distribution. Philippines (Richardson, 1910).

Anilocra caudata Bovallius

Figs 7, 8

Anilocra leptosoma Bleeker, var. *caudata* Bovallius, 1887: 13, pl. III figs 29–38.

Anilocra leptosoma.—Monod, 1934: 11, pls 19, 22A, B, 23,

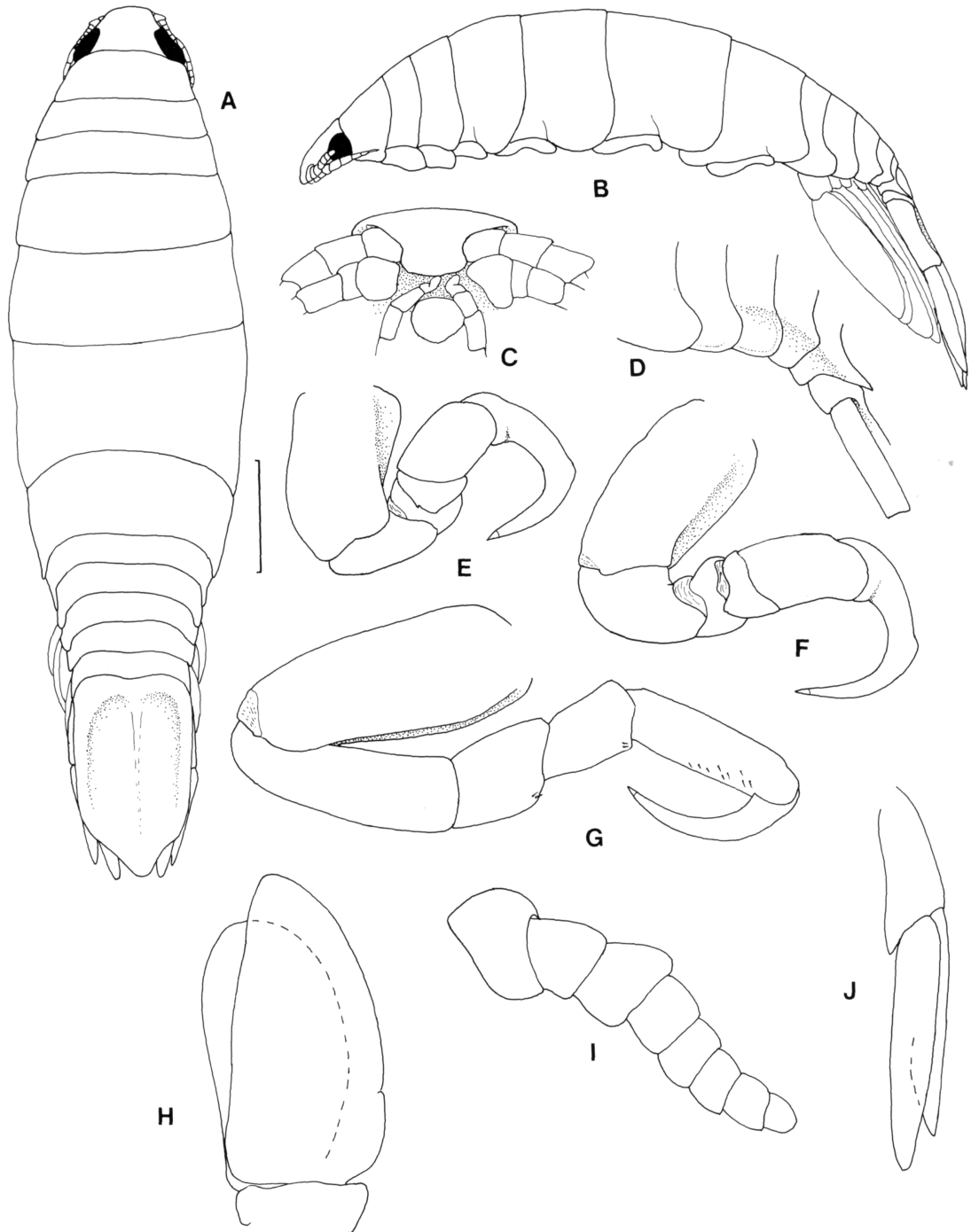


Fig. 6. *Anilocra cavicauda*, holotype (USNM 40936). **A**, dorsal view; **B**, lateral view; **C**, frons; **D**, pleon, lateral view; **E**, pereopod 1; **F**, pereopod 2; **G**, pereopod 7; **H**, pleopod 1; **I**, antennule; **J**, uropod. Scale line represents 4.0 mm.

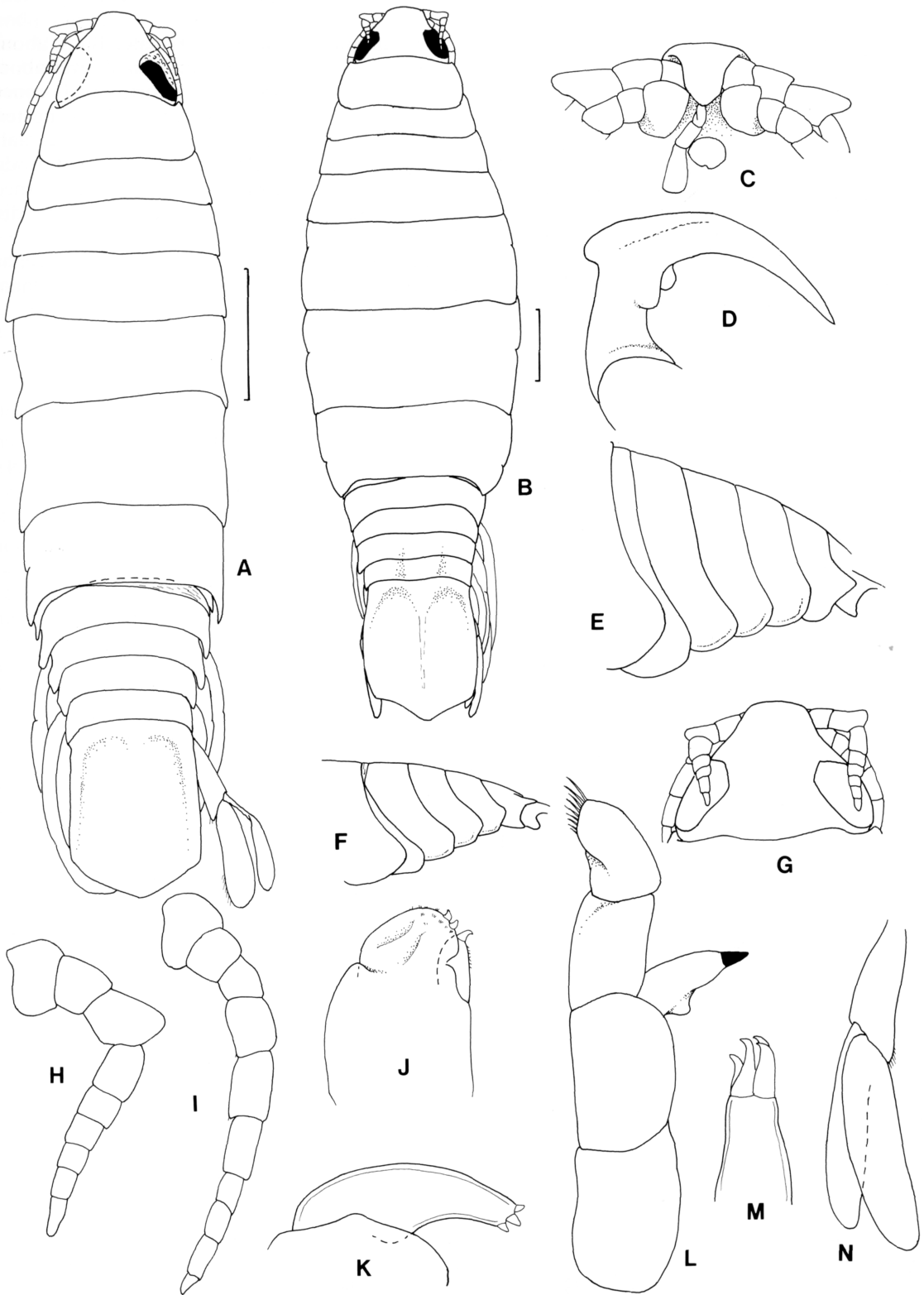


Fig. 7. *Anilocra caudata*. A, C, D, F, holotype (NRS 5774), remainder female (30.0 mm) NTM Cr 4240. A, dorsal view; B, dorsal view; C, frons; D, pereopod 2 dactylus, in situ; E, pleon, lateral view; F, pleon, lateral view; G, cephalon; H, antennule; I, antenna; J, maxilla apex; K, maxilliped article 3; L, mandible; M, maxillule apex; N, uropod. Scale lines represent 3.0 mm.

24B; Trilles, 1975: 310, pl. 1, fig. 6 (not *A. leptosoma* Bleeker).

Material examined. HOLOTYPE: female (ovig 21.0), Philippinerna, Wessel (NRS Is. 5774). Bovallius (1887) mentioned only the one specimen, held at the Rijksmuseum, Stockholm. The specimen is in very poor condition, and dissected appendages are missing.

Non-type: female (non-ovig 23.5), Snake Bay, Melville Island, NT, 11°25'S 130°41'E, Sept 1975, depth 60 m (NTM Cr2291). Female (ovig 30.0), North of Cape Wessel, NT, Arafura Sea, 10°24'S 133°36'E, 3 Feb 1985, depth 61 m, prawn trawl, coll. R. Williams (NTM Cr4240). Female (non-ovig 24.0), north of Wessel Islands, NT, 10°25'S 136°35'E, 1 Jan 1985, depth 64 m, coll. Rex Williams (NTM Cr4241). Female (ovig 31.0), south of Cooktown, Qld, 16°1'S 145°29'E, 6 Feb 1979, trawled, 20 m, coll. AM, AIMS (AM P36284).

Type locality. Philippines (Bovallius, 1887).

Description of Australian female. Body about 3.5 times as long as wide. Rostrum broad; eyes about 0.4 width of cephalon. Pleonite 1 short, largely concealed by pereonite 7, ventrolateral margins not posteriorly produced. Pleonites 2–4 with rounded lateral margins. Pleonite 5 dorsal posterolateral margins not produced. Pleotelson lateral margins straight, weakly turned up; posterior margin abruptly angled, forming distinct caudomedial point.

Antennule extending to posterior of cephalon; anterodistal margin of article 3 produced. Antenna with

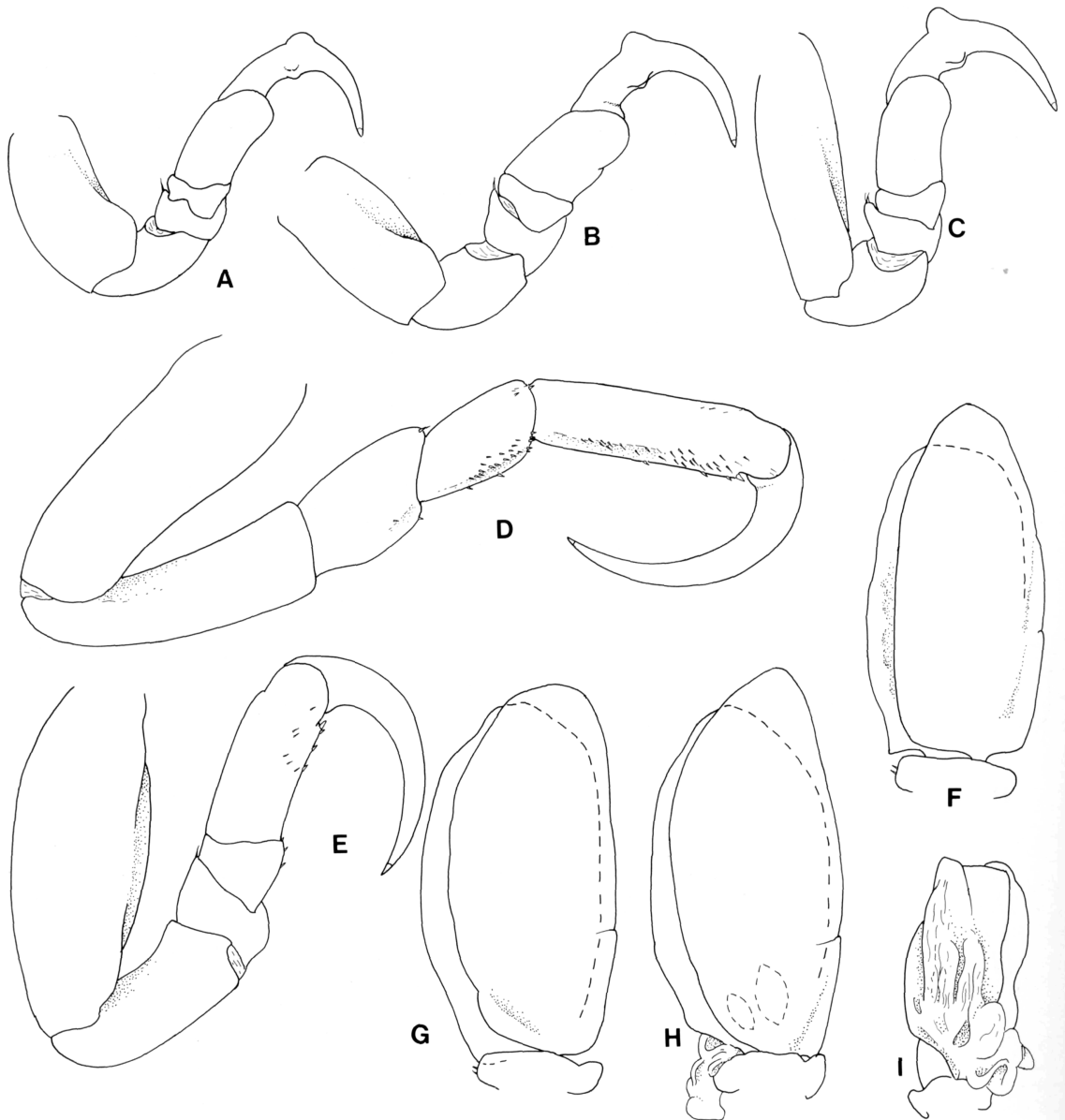


Fig. 8. *Anilocra caudata*, female (30.0 mm), NTM Cr 4240. A, pereopod 1; B, pereopod 2; C, pereopod 4; D, pereopod 7; E, pereopod 6; F-I, pleopods 1 to 3 and 5 respectively.

10 articles, extending to posterior of pereonite 1.

Mandible palp with about 10 setae on distolateral margin. Maxillule with 4 terminal spines. Maxilliped article 3 with 3 terminal spines.

Pereopod 1 with prominent nodule on dactylus anterior margin and 2 nodules on posterior margin; dactylus nodules increasing in prominence from pereopods 2–4. Pereopod 6 with 3 spines on propodal palm, about 6 spines on posteromedial surface. Pereopod 7 with abundant small spines on posterolateral margins of carpus and propodus.

Pleopods 1 and 2 elongate. Pleopod 3 endopod with prominent folded proximomedial lobe; endopod with 3 small folds; pleopod 4 with 3 small folds; pleopod 5 greatly folded. Uropod extending slightly beyond posterior of pleotelson, rami subequal in length, or exopod slightly shorter; apices broadly rounded.

Colour. Pale tan in alcohol.

Size. Females 21.0–30.0 mm.

Variation. The specimen from Melville Island has a more elongate body, about 4.5 times as long as wide, but otherwise agrees well with the other specimens.

Remarks. This species is most similar to *Anilocra leptosoma* and *A. monoma*. There are several differences between *A. leptosoma* and the material examined here, and Bovallius' (1887) subspecies is here given specific rank. The differences are in *A. caudata*: pleonite 1 posterolateral margins not produced (produced in *A. leptosoma*); pleotelson lateral margins straight, weakly upturned (convex and flat); pleotelson posterior margins abruptly angled to caudomedial point (converging smoothly to point).

Anilocra monoma has the pereopod nodules very weakly developed, and a pleotelson the same as that of *A. leptosoma*. *Anilocra cavicauda* differs from *A. caudata* in having more slender pleotelson and uropods, weakly developed pereopod nodules, and acute uropod apices.

Host. Not known.

Distribution. Vietnam (Monod, 1934), Philippines (Bovallius, 1887), Melville and Wessel Islands, Northern Territory, and off Cooktown, Queensland.

Anilocra dimidiata Bleeker

Figs 9, 10, 11

Anilocra dimidiata Bleeker, 1857: 21, 23, pl. 2, fig. 10.—Schödte & Meinert, 1881: 111, pl. 8 figs 5, 6; Nierstrasz, 1915: 81; Monod, 1934: 10, pls 17C–D, 24A, 25D–F; Richardson, 1910: 18 (part).

Unconfirmed records or citations: Miers, 1880: 462; Gerstaecker, 1882: 261; Stebbing, 1900: 639; 1905: 26; Nierstrasz, 1918: 114; 1931: 128; Serène, 1937: 69; Pillai, 1954: 14; Trilles, 1975: 305, pl. 1 fig. 2; 1979: 249.

Anilocra carpentariensis Avdeev, 1977: 143, fig. 3.

Anilocra dimidiata.—Bowman & Tareen, 1983: 5 (lapsus).

Material examined. SYNTYPES: 2 females (ovig 23.0, 25.0), Batavia (= Jakarta), Indonesia, coll. Bleeker (RMNH 22). Held at the Rijksmuseum van Natuurlijke Historie, Leiden.

Non-type: female (non-ovig 25.0), Baai van Batavia, 1910 (RMNH 21); female (ovig 26.0), Java Zee, April 1907, ex *Psettus evansi** (F. Monodactylidae, name unconfirmed) (RMNH 19); 5 females (ovig 20.0, 22.0, 24.0, non-ovig 23.0, 24.0), Batavia, Sept 1910, (RMNH 23); all from Indonesia, collected by P. J. Buitendijk, and reported on by Nierstrasz, 1915. 3 females (ovig 27.0, 21.0, non-ovig 22.0), Batavia, no other data (RMNH 1332). Numerous specimens, mostly juvenile (USNM 40968, 40969, 40971–73), Philippines, examined by Richardson (1910).

Australian material: female (non-ovig 10.5), Rargala Is., Wessel Islands, NT, 6 April 1982, commercial prawn trawl, coll. H.K. Larson (NTM Cr4242). 13 females [ovig 22.5 (AM P36277), 22.5, 22.0, 21.5 (AM P36279), 20.5, 20.5, 20.0, 20.0, 19.5, 19.5 (AM P36278), 18.5, non-ovig 21.5 (AM P36276), 18.0], Gulf of Carpentaria, 1969, from various trawled fishes (*Nemipterus**), coll. CSIRO Gulf of Carpentaria Prawn Survey (AM P36275–P36279). Female (ovig 20.0), Cleveland Bay, Townsville, Qld, 3 Oct 1974, coll. D. M. Holdich (QM W10431). 2 females (non ovig 16.0, 17.5), Cleveland Bay, Townsville, Qld, 6 Sept 1983, ex *Equulites bindus*, coll. B. Ingram (QM W12176).

Type locality. Djakarta Bay (= Jakarta), Java, Indonesia (Bleeker, 1857).

Description of Australian female. Body 3.2–3.9 times as long as wide, coxae scarcely visible in dorsal view. Eyes large, about 0.46 width of cephalon; ocular surface shallowly domed. Pleon about 0.5 width of pereon; pleonite 1 longest, posterolateral margins not produced; posterolateral margins of pleonites 2–5 not produced; dorsal posterolateral angle of pleonite 5 strongly produced, acute, curving medially. Pleotelson lateral margins turned up; posterior margin bisinuate, with caudomedial lobe; lateral and posterior margin forming distinct angle.

Antennule with 6 or 7 articles, extending to posterior of eye; article 3 with anterodistal angle weakly produced. Antenna with 10 articles, extending to posterior of, or just beyond pereonite 2; articles 1–3 short, 5–10 elongate; posterior margins of articles 5–7 with blade-like edge.

Mandible palp with 4 setae on distolateral margin of article 2, with 17 setae on distal margin of article 3. Maxillule with 4 terminal spines. Maxilla with 2 spines each on medial and lateral lobe respectively.

Pereopods 1–4 with nodule on dactylus anterior margin progressively increasing in prominence, nodule on dactylus posterior margin very weak.

Pleopods prominent in dorsal view; pleopods 1 and 2 with suture on exopod lateral margin, and on both margins of exopods of pleopods 3–5. Pleopods 3–5 endopods with prominent proximomedial lobe. Pleopod 3 endopod without folded lobes, pleopod 4 with single small lobe, pleopod 5 endopod with 3 large folds. Uropod rami extending beyond posterior of pleotelson, both rami curving medially; exopod narrower and slightly shorter than endopod, peduncle mediodistal angle produced and acute.

Male. None examined.

Colour. Dense brown chromatophores on side that is uppermost when on host.

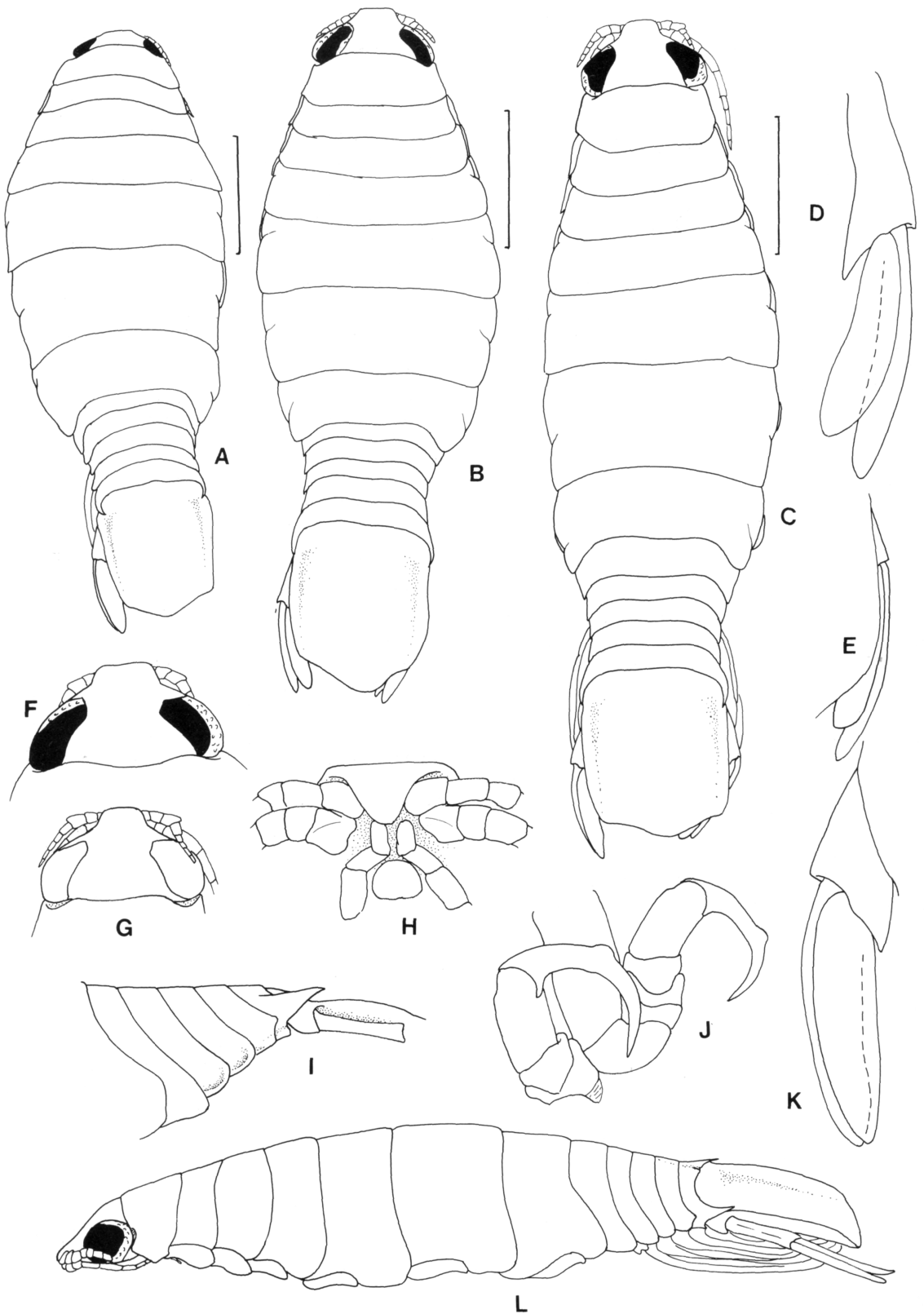


Fig. 9. *Anilocra dimidiata*, A, H–J, syntype, 25.0 mm; F, syntype 23.0 mm; remainder as indicated. **A**, dorsal view; **B**, female, AM P36276; **C**, female, AM P36277; **D**, uropod, female, AM P36279; **E**, uropod, female 27.0 mm, RMNH 1332; **F**, cephalon; **G**, cephalon, female, AM P36277; **H**, frons; **I**, pleon, lateral view; **J**, pereopods 1, 2, in situ; **K**, uropod, female 20.0 mm, RMNH 23; **L**, lateral view, female, AM P36277. Scale lines represent 4.0 mm.