

Pleopod 5 endopod folding weak. Uropod with rami short, broadly rounded, endopod slightly shorter than exopod.

Male. Not known.

Colour. In alcohol, dark grey.

Size. Ovigerous female, 13.5 mm, non-ovigerous 10.5–12.0 mm.

Variation. The female from One Tree Island is far more strongly arched, and the cephalon is scarcely visible in dorsal view. Only the holotype has the posterodistal angle of the basis produced.

Remarks. This species bears some resemblance to *Renocila ovata* but is easily distinguished by having far shorter pereopod dactylus, longer antenna, pereopod 7 manifestly larger than 6 (both with a weakly carinate basis), and posterodistal angle of pereopod 1 basis truncate.

Hosts. None recorded.

Distribution. Great Barrier Reef from the Capricorn Group in the south to Swains Reefs and Bushy Island reef off Mackay.

Etymology. *Alkoo* is an Aboriginal word meaning visitor.

Renocila plesiopi n. sp.

Figs 7, 8

Rocinela species.—Healy & Yaldwyn, 1970: 26, pl. 11 (lapsus).

Material examined. All Great Barrier Reef, Queensland. HOLOTYPE: female (ovig 19.0), Gillett Cay, Swains Reefs, 14 Oct 1962, ex *Plesiops corallicola* (AM P37139). PARATYPES: 2 females (ovig 13.5, non-ovig 13.5), same data as holotype (AMP15598); female (12.0), on host, photographed by Healy & Yaldwyn, 1970 (AM P15597); female (ovig 10.0), no host (AMP15600); female (ovig 8.5), Gillett Cay, Swains Reefs, 14 Oct 1962, ex *Apogon* sp. (AM P15599); female (ovig 13.5), Heron Island, Capricorn Group, 23°27'S, 151°55'E, Sept 1926, caudal peduncle of *Apogon guttatus*, coll. M. Ward (AM P10686); female (non-ovig 12.5), One Tree Is., Capricorn Group, 23°30'S, 152°05'E, 29 Sept 1971, west channel, sand and coral bottom, coll. D. Hoesé & V. Moore (AM P25006).

Type locality. Gillett Cay, Swains Reefs, Great Barrier Reef, 21°43'S, 152°25'E.

Description of female. Body about 1.6 times as long as wide; widest at pereonite 5. Cephalon rostrum anterior margin turned ventrally and posteriorly; eyes small, about 0.28 width of cephalon. Coxae of pereonites 2–3 as long, or slightly longer than respective segment; coxae of pereonites 5–6 short, coxae of pereonite 7 much shorter than 6. Posterolateral margins of pereonites 4–7 produced, acute. Pleonite 1 longest; pleonites 2–4 becoming progressively narrower, pleonite 5 slightly wider than

pleonite 4; pleon (at pleonite 4) about 0.35 width of pereon. Pleotelson wider than long, posterior margin widely rounded.

Antennule extending to midpoint of pereonite 1, with 7 articles. Antenna slightly shorter than antennule, with 9 articles.

Mandible palp article 3 with 7 setae. Maxillule with 5 terminal spines. Maxilla with 2 small spines each on medial and lateral lobe respectively. Maxilliped article 3 with 4 small tubercle-like spines.

Pereopod 1 basis posterodistal margin carinate; dactylus without nodules, curving smoothly, extending to posterior of ischium. Pereopods 2 and 3 similar to 1 but slightly longer; pereopod 4 basis longer than in pereopod 3, posterodistal angle not carinate. Pereopod 6 with 4 short spines on propodial palm, dactylus manifestly shorter than those of anterior pereopods. Pereopod 7 slightly longer than 6; merus, carpus and propodus proportionally longer than in pereopod 6.

Pleopods 3–5 endopod proximomedial lobe slender; peduncles decreasing in width towards posterior. Uropod endopod straight, tapering to narrowly rounded apex; exopod curving medially, apex rounded.

Male. Not known.

Colour. All specimens with submarginal band of chromatophores along posterior margin of pereonites 2–7, and both anterior and posterior margins of pereonite 7. A colour photograph was given by Healy & Yaldwyn (1970).

Size. Ovigerous females, 8.5–19.0 mm, non-ovigerous females 12.5 mm.

Variation. Non-ovigerous female maxilliped article 3 with 3 recurved spines. Antenna articles vary in number from 8 to 9. Specimens otherwise constant in appearance.

Remarks. *Renocila plesiopi* is easily separated from all other species by the narrow pleon, which decreases in width towards the posterior. Other characters which aid in identifying the species are the long, smoothly curved dactylus, totally lacking nodules, and the posterodistal margin of the basis of pereopods 1–3 not being produced.

Hosts. *Plesiops corallicola*, *Apogon* sp. and unconfirmed *Apogon guttatus*. All specimens positioned midway between ventral fin and second dorsal, anterior to the caudal peduncle.

Distribution. Heron Island Reef, One Tree Island reef, Capricorn Group, and Gillett Cay, Swains Reefs.

Etymology. Specific epithet is derived from the host genus name.

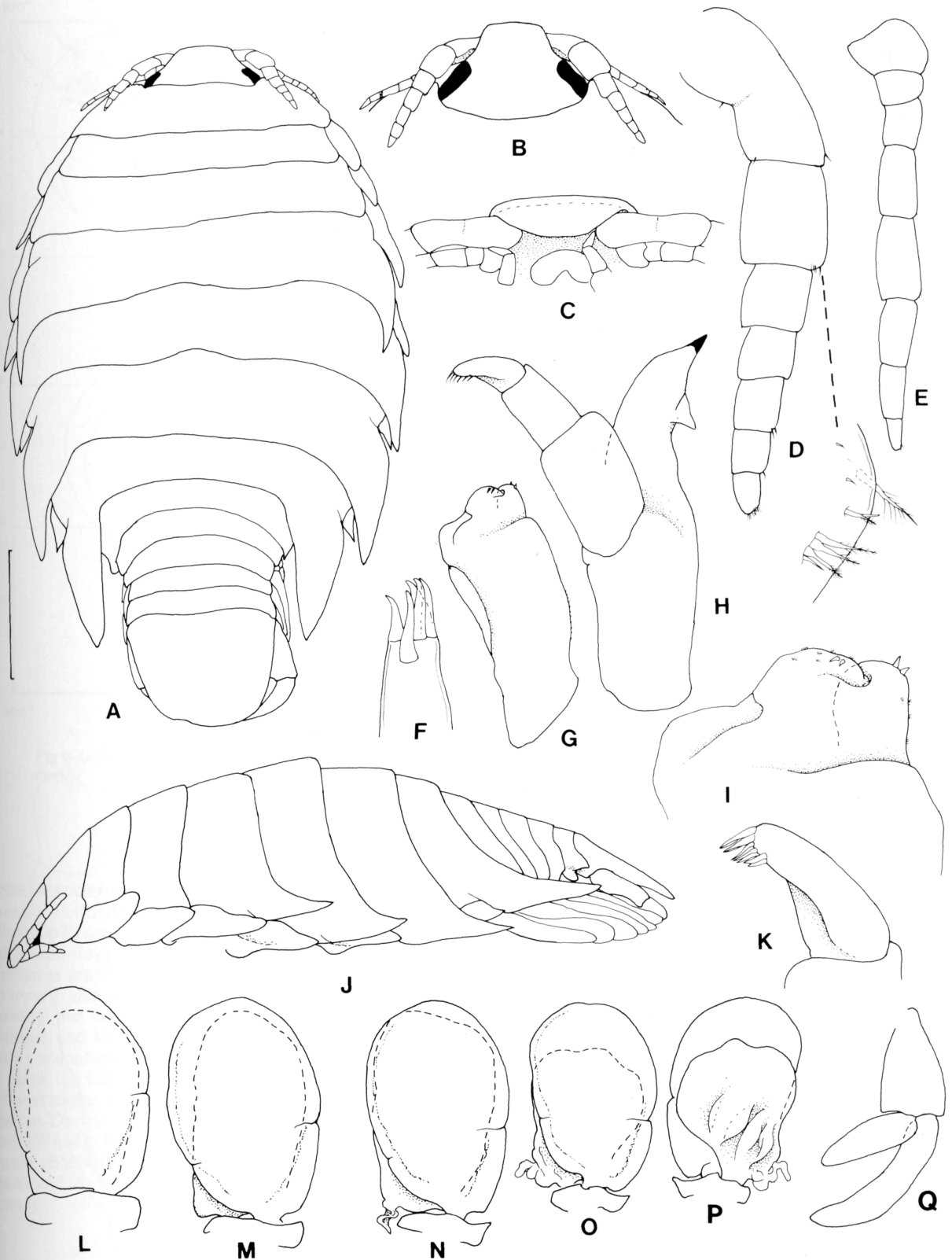


Fig. 7. *Renocila plesiopi* n. sp. A-C, J, holotype, AM P37139; remainder female, AM P15598. A, dorsal view; B, cephalon; C, frons; D, antennule, female; E, antenna, female; F, maxillule apex; G, maxilla; H, mandible; I, maxilla apex; J, lateral view; K, mandible palp article 3; L-O, pleopods 1, 2, 3 and 5 respectively; P, pleopod 5, posterior view; Q, uropod. Scale line represents 4.0 mm.

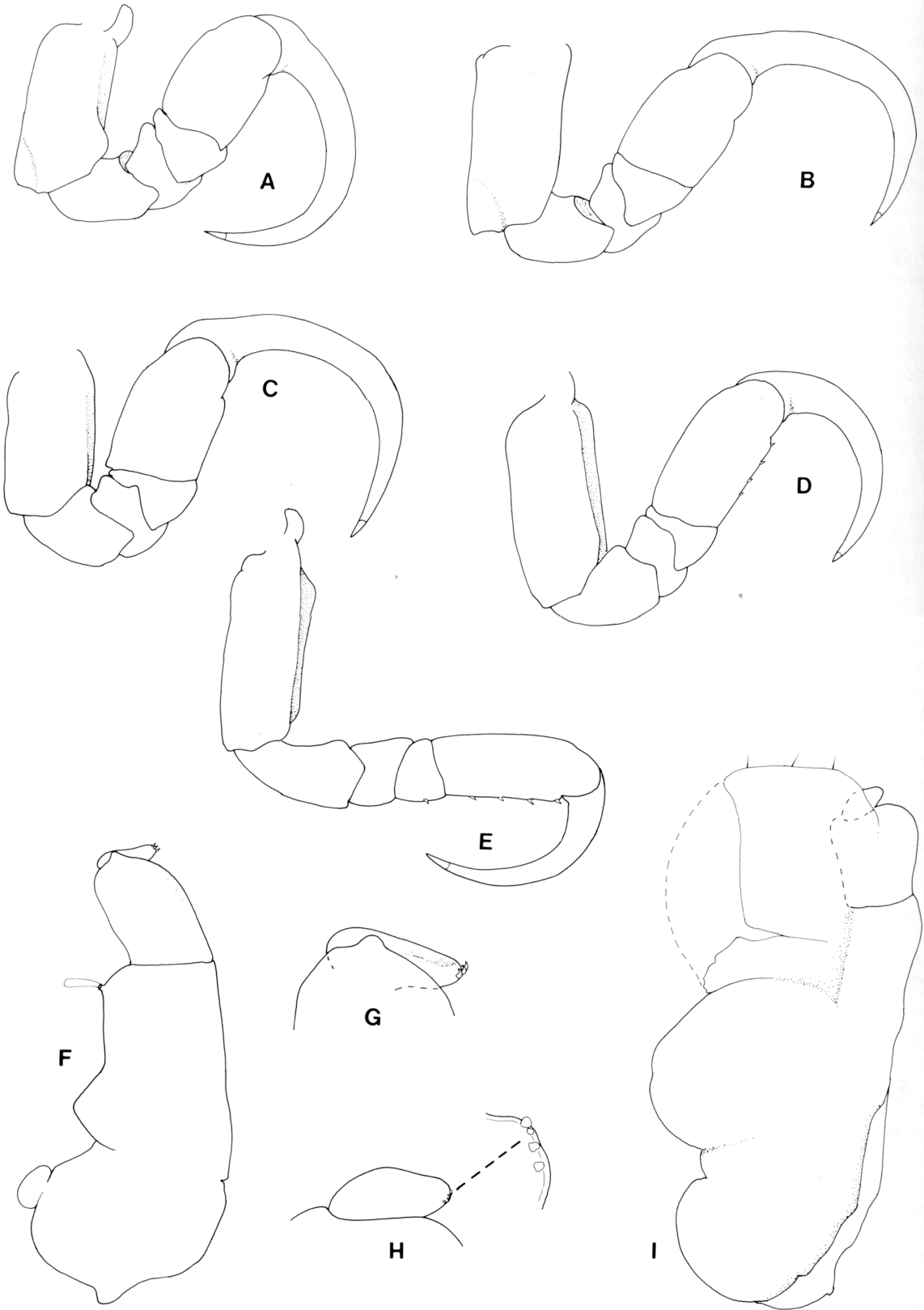


Fig. 8. *Renocila plesiopi* n. sp. All figures of female, AM P15598, except where indicated. A–E, pereopods 1, 2, 4, 6 and 7 respectively; F, maxilliped, non-ovig female, AM P25598; G, maxilliped article 3, non-ovig female, AM P15598; H, maxilliped apex; I, maxilliped.

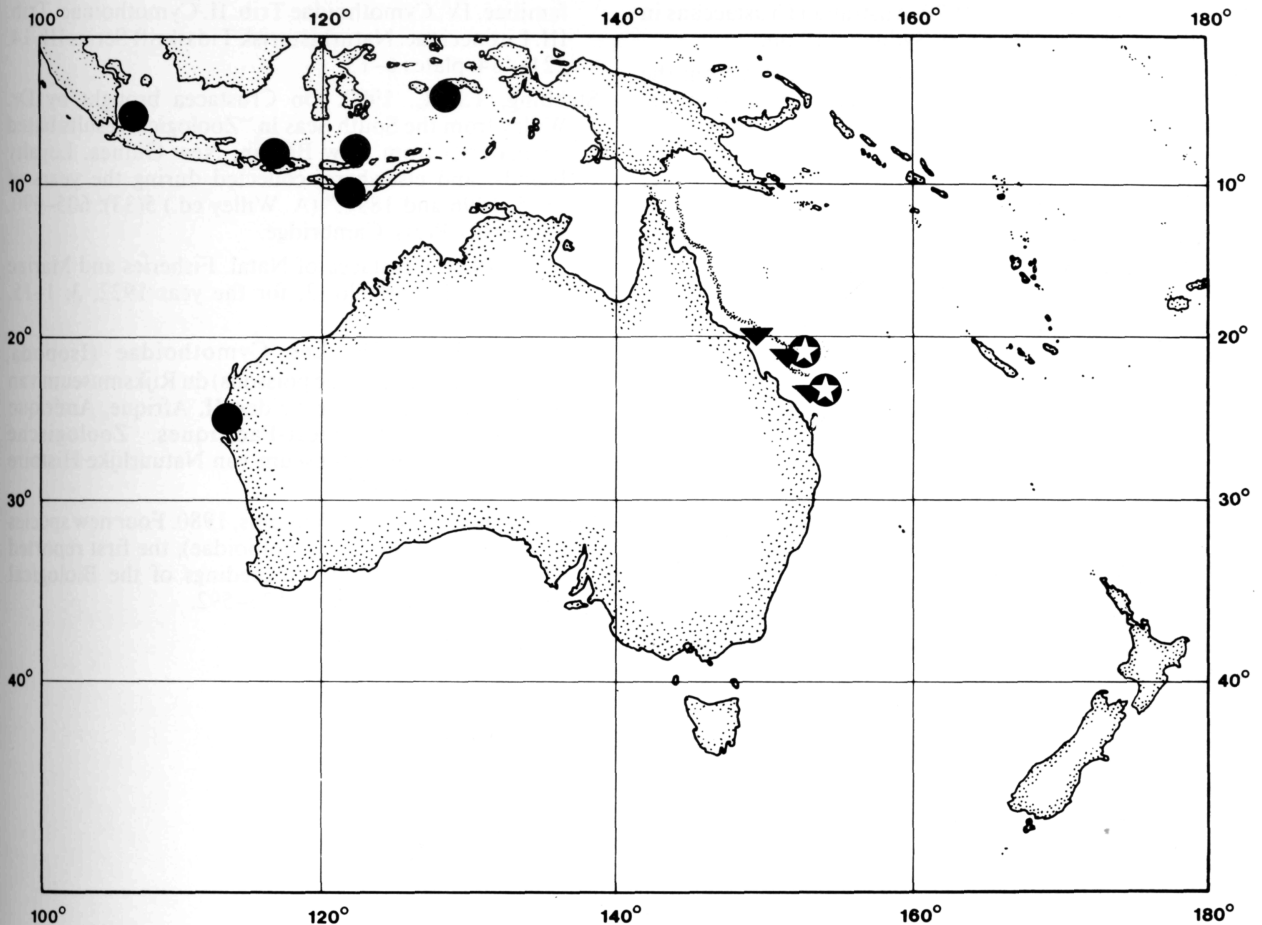


Fig 9. Distribution of *Renocila* around Australia, and Indonesia: *R. ovata*, circle; *R. alkoos*, triangle; *R. plesiopi*, star in circle.

ACKNOWLEDGEMENTS. This study was supported by a Queen's Fellowship in Marine Science, a Queen's Fellowship Research Support Grant, and a Marine Sciences and Technology Grant (85/1012-I). The Australian Museum is gratefully acknowledged for the provision of facilities. I also thank Dr T.E. Bowman for generously allowing me access to his unpublished cymothoid catalogue, and Ms D. Rennis and Mr M. McGrouther for making or confirming host identities.

I thank the following for lending or donating material pertinent to this study: Dr A.J. Bruce (Northern Territory Museum, Darwin, Australia); Mr P.J.F. Davie (QM); Ms D. Jones (WAM); Prof. L.B. Holthuis (RMNH); Dr R.J. Lincoln (BMNH); Prof. J.H. Stock and Mr D. Platvoet (ZMA); and Ms Verena Stagle (Naturhistorisches Museum, Vienna).

References

- Barnard, K.H., 1936. Isopods collected by R.I.M.S. *Investigator*. Records of the Indian Museum, Calcutta 38: 147-191.
- Bleeker, P., 1857. Recherches sur les Crustacés de L'Inde Archipelagique. II. Sur les Isopodes Cymothoïdiens de L'Archipel Indien. *Natuurkundige vereniging in Nederlandsche-Indie*, Batavia. *Verhandelingen* 2: 20-40, plates 1, 2.
- Bowman, T.E. & R.N. Mariscal, 1968. *Renocila heterozota*, a new cymothoid isopod, with notes on its host, the anemone fish, *Amphiprion akallopisos*, in the Seychelles. *Crustaceana* 14: 97-104.
- Bruce, N.L., 1987. Australian *Pleopodias* Richardson, 1910 and *Anilocra* Leach, 1818 (Isopoda: Cymothoidae), crustacean parasites of marine fishes. *Records of the Australian Museum* 39: 85-130.
- Brusca, R.C., 1981. A monograph on the Isopoda Cymothoidae (Crustacea) of the eastern Pacific. *Zoological Journal of the Linnean Society* 73: 117-199.
- Gerstaecker, A., 1882. Sechste Ordnung. Isopoda Asseln [Part], pp. 97-278 in "Klassen und Ordnung des Tier-Reichs, wissenschaftlich dargestellt in Wort und Bild." (Dr H.G. Bronn ed.). *Funfter Band II. Abtheilung. Gliederfüssler: Arthropoda. Crustacea (Zweite Hälfte: Malacostraca)* 4, 5, 6, 7, 8. Lieferung.

- Healy, A. & J.C. Yaldwyn, 1970. Australian Crustaceans in Colour. A.H. & A.W. Reed, Sydney, 112 pp.
- Miers, E. J., 1880. On a collection of Crustacea from the Malaysian Region — Part IV. Penaeidae, Stomatopoda, Isopoda, Suctoria, and Xiphosura. *Annals and Magazine of Natural History*, 5 series 5: 457–467.
- Nierstrasz, H.F., 1915. Die Isopoden-Sammlung im Naturhistorischen Reichsmuseum zu Leiden. — 1. Cymothoidae. *Zoologische Mededeelingen, Rijksmuseum van Natuurlijke Historie te Leiden* 1: 71–108, plates 3, 4.
- 1918. Alte und neue Isopoden. *Zoologische Mededeelingen, Rijksmuseum van Natuurlijke Historie te Leiden*, 4: 103–142, plates 9, 10.
- 1931. Die Isopoden der Siboga-Expedition. 3. Isopoda Genuina. 2. Flabellifera. *Siboga-Expeditie* 32c: 123–233, plates 10, 11.
- Richardson, H., 1910. Marine isopods collected in the Philippines by U.S. Fisheries steamer *Albatross* in 1907–1908. Department of Commerce and Labor, Bureau of Fisheries Document 736: 1–44.
- Schiödt, J.A. & Fr. Meinert, 1884. *Symbolae ad monographium cymothoarum crustaceorum isopodum familiae*. IV. Cymothoidae Trib. II. Cymothoinae. Trib. III. Lironecinae. *Naturhistorisk Tidsskrift Series III*, 14: 221–454, plates 6–13.
- Stebbing, T.R.R., 1900. On Crustacea brought by Dr. Willey from the South Seas in “Zoological results based on material from New Britain, New Guinea, Loyalty Islands, and elsewhere, collected during the years of 1895, 1896 and 1897.” (A. Willey ed.) 5(33): 605–690. University Press, Cambridge.
- 1924. Crustacea of Natal. Fisheries and Marine Biological Report No. 3, for the year 1922, 3: 1–15. Plates 11–16.
- Trilles, J.-P., 1979. Les Cymothoidae (Isopoda, Flabellifera; parasites de poissons) du Rijksmuseum van Natuurlijke Histoire de Leiden II. Afrique, Amérique et régions Indo-Ouest-Pacifiques. *Zoologische Mededeelingen, Rijksmuseum van Natuurlijke Histoire te Leiden* 54: 245–275
- Williams, E.H. Jr. & L.B. Williams, 1980. Four new species of *Renocila* (Isopoda: Cymothoidae), the first reported from the New World. *Proceedings of the Biological Society of Washington* 93: 573–592.

Accepted 14 October 1986.