Biremia ambocerca n. gen., n. sp., the First Record of the
Marine Isopod Crustacean Family
Bathynataliidae from Australian Waters

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ABSTRACT. Biremia ambocerca n. gen., n. sp. is described and figured; it is distinguished from
other bathynataliid genera by lacking operculate first pleopods, and in having biramous uropods.
The genus is unique within the Isopoda in having a second endite on the maxilliped. The single
specimen was taken off Lady Elliot Island, southern Great Barrier Reef, and is the first record
of the family from beyond the south-western Indian Ocean. A new family diagnosis is provided,
and a key is given for the 3 monotypic genera of the Bathynataliidae.

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KEYWORDS: taxonomy, marine Isopoda, Bathynataliidae, Great Barrier Reef.

The family Bathynataliidae Kensley, 1978 was
previously known from two monotypic genera recorded
only from South Africa (Kensley, 1978, 1979). The
occurrence of the family in eastern Australia greatly
expands its known range. There are many
morphological difference between the Australian
specimen and the South African genera, and a new
genus is established to accommodate the species. The
new genus differs from the other genera in possessing
a second endite on the maxilliped, pleonite 1 not visible
in dorsal view and uropods with reduced rami. The
family diagnosis is here emended.

Family Bathynataliidae Kensley, 1978

Diagnosis. Body dorsoventrally flattened.
Cephalon, anterolateral margins expanded; posterior
margin fused with pereonite 1. Pereonites 2 to 7 distinct,
coxae present on at least pereonites 2 to 6. Pleon with
4 or 5 visible pleonites and large pleotelson; at least 2
pleonites with free lateral margins. Mandible with molar
process absent (Bathynatalia, Biremia n. gen.) or
vestigial (Naudea), lacinia present on left (Biremia n.
gen., Naudea) or right (Bathynatalia) mandible.
Maxillule with 10 or 11 stout spines. Maxilla, inner
ramus uni- or bilobed. Maxilliped palp 3-articled, endite
with distinct basal suture and single large coupling hook.
Pereopod 1 robust, subchelate; pereopods 2 to 6 or 2
to 7 slender. Pleopods lying in chamber formed by
thickening of ventrolateral margins of pleotelson;
pereopods 1 to 3 with large peduncles, rami setose;
pereopods 4 and 5 with small peduncles, rami setation
reduced. Uropod insertion subterminal, rami small
(smaller than peduncle) or absent.

Type-species. Bathynatalia gilchristi Barnard, 1957.

Remarks. The family Bathynataliidae now consists
of three genera: Bathynatalia Barnard, 1957, Naudea
Kensley, 1979 and Biremia n. gen. As indicated by
Kensley (1978, 1979) the family is most closely allied
to the Serolidae. The serolid genus Basserolis Poore,
1985 further emphasises the similarity of the two
families. Basserolis, whilst having reduced mouthparts
that differ markedly to those of Serolis (see Harrison
& Poore, 1984), has pereopods and pleopods that are
essentially the same as those of Biremia.

All serolid genera are easily identified by the fourth
pair of pleopods being operculate (Harrison & Poore,
1984; Poore, 1985). In the Bathynataliidae the pleopods
are all lamelliform, or the first pair is operculate. In
Biremia there is an abrupt change in the morphology
of pleopods 1 to 3 and 4 and 5, with pleopods 4 and 5
being larger and broader than 1 to 3, a condition
approaching that shown by the serolids. Most serolids
have a pleon of 3 visible segments and the uropods