

## The Wandinidae, a New Indo-Pacific Family of Lysianassoid Amphipoda (Crustacea)

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**ABSTRACT.** The family Wandinidae is established for *Pseudocyphocaris* Ledoyer and the new genus *Wandin*. Both genera are known only from the Indo-Pacific area. The Wandinidae is characterised by a peculiar hook-like process on the peduncle of antenna 2, a conical mouthpart bundle, coxae 1 to 3 variously reduced, coxa 4 greatly enlarged, and a 1-articulate outer ramus on uropod 3 with a subapical incision. The Wandinidae is considered to be the sister group of the amaryllidid family group. One new species of *Wandin* is described from the Great Barrier Reef, Australia and two new species of *Pseudocyphocaris* are described from north-eastern Papua New Guinea.

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Ledoyer (1986) described *Pseudocyphocaris coxalis* from Madagascar and placed it in the family Lysianassidae. J.D. Thomas recently collected two new species from Papua New Guinea which we describe here. A second closely related genus was found in collections from the Great Barrier Reef and is described here as *Wandin griffini*.

These two genera have simple first gnathopods and superficially resemble the Lysianassinae as defined by Hurley (1963). However, *Wandin* and *Pseudocyphocaris* share distinctive synapomorphies which preclude them from the subfamily Lysianassinae. They do not belong in the conicostomatid group of Lowry & Stoddart (1983) or the amaryllidid group of Lowry & Stoddart (in preparation) for similar reasons. We are therefore establishing a new family, the Wandinidae, for these genera.

### Methods

All material is lodged in the Australian Museum, Sydney (AM). Abbreviations used in the figures are as follow: A1,2 – antenna 1,2; C – coxa; E – epistome and upper lip; EP3 – epimeral plate 3; G1,2 – gnathopod 1,2; H – head; MD – mandible; MP – maxilliped; MPp – maxilliped palp; MPIP – maxilliped inner plate; MPOP – maxilliped outer plate; MX1-2 – maxilla 1,2; P3-7 – peraeopod 3-7; ST1-7 – maxilla 1 outer plate outer row spine-tooth 1-7; STA-D – maxilla 1 outer plate inner row spine-tooth A-D; T – telson; U1-3 – uropod 1-3; l – left; r – right.

Most lysianassoids have 11 spine-teeth in two rows on the outer plate of maxilla 1. To clarify comparative studies and homologies a letter and number code for each of these teeth is introduced (Fig. 8). In some taxa the outer row contains 7 spine-teeth (ST1-ST7) and the inner row