

The Amphipoda (Crustacea) of Madang Lagoon: Lysianassidae, Opisidae, Uristidae, Wandinidae and Stegocephalidae *

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ABSTRACT. This is the first comprehensive study of lysianassoid and stegocephaloid amphipods from the north coast of Papua New Guinea. The study reports 19 species in 11 genera in five families living in several discrete habitats in the Madang Lagoon and Astrolabe Bay. In the Lysianassidae one new genus and eight new species (*Paralysianopsis mazamoz* n.sp., *P. padoz* n.sp., *Rhinolabia elliotti* n.sp., *R. jebbi* n.sp., *R. paeowai* n.sp., *Riwo mizeui* n.gen., n.sp., *Tryphosella astrolabensis* n.sp. and *T. wongada* n.sp.) are described. These are the first records of *Paralysianopsis* and *Rhinolabia* from the Indo-Pacific. In the Opisidae n.fam. one new species (*Podoprionella dagadugaban* n.sp.) is described. This is the first record of *Podoprionella* from the Indo-Pacific. In the Uristidae the new genus *Nagada* and three new species (*Nagada garagassi* n.sp., *N. papua* n.sp. and *N. uwedoae* n.sp.) are described. Two new species of Stegocephalidae (*Andaniotes bagabag* n.sp. and *A. karkar* n.sp.) are described. Species diversity was greatest among scavenging lysianassoids. Five lysianassoid genera (*Ichnopus*, *Nagada*, *Paralysianopsis*, *Rhinolabia* and *Tryphosella*) represented by eleven species (*Ichnopus malpatun* Lowry & Stoddart, 1992, *Nagada garagassi*, *N. papua*, *N. uwedoae*, *Paralysianopsis mazamoz*, *Rhinolabia elliotti*, *R. paeowai*, *R. jebbi*, *Riwo mizeui*, *Tryphosella astrolabensis* and *T. wongada*) and both *Andaniotes* species were only collected in baited traps and are considered to be at least opportunistic scavengers. *Podoprionella dagadugaban* was also collected in a trap, but it is suspected of being an epiparasite of fish. Three species (*Paralysianopsis padoz*, *Riwo mizeui* and *Tryphosella wongada*) were taken among living coral inside and outside the lagoon. Five species (*Nagada garagassi*, *N. papua*, *N. uwedoae*, *Rhinolabia jebbi* and *Tryphosella astrolabensis*) were found in deep water outside the lagoon, probably on sand and mud bottoms. Three free-living species (*Paralysianopsis padoz*, *Parawaldeckia lowryi* Myers, 1985 and *Pseudambasia acuticaudata* (Ledoyer, 1984)) and two suspected commensal species (*Pseudocyphocaris gosema* Lowry & Stoddart, 1990 and *P. lobata* Lowry & Stoddart, 1990) occurred among coral rubble. No lysianassoid species was found in seagrass beds or living among sponges, but *P. gosema* and *P. lobata* are suspected of living with the tunicate *Didemnum molle*. Little is known of the biogeographic affinities of this fauna because so little is known from other parts of the Indo-Pacific. However, *I. malpatun* also occurs in New Caledonia, *Pseudambasia acuticaudata* also occurs in New Caledonia and the Austral Isles, and *Parawaldeckia lowryi* also occurs in Fiji and Tonga.

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