

Amphipoda from the South Pacific: the Society Islands

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ABSTRACT. Thirty two species of gammaridean Amphipoda are recorded from 0 to 1 m depth in the Society Islands. Six species in the genera *Elasmopus*, *Maera*, *Cheiriphotis*, *Polynesoecetes* n.gen. and *Jassa* are new to science and are described and figured. Based on the shallow-water Amphipoda, the Society Islands show their closest biogeographic relationship with Tonga, Fiji and New Caledonia to the west.

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Collections of gammaridean Amphipoda (0 to 1 m depth) were made by the writer in 1986, at the Society Islands of Tahiti, Moorea (Windward Islands), Huahine and Bora Bora (Leeward Islands) and are reported on here. There appear to be no previous published records of marine amphipods from these islands, but a terrestrial species, *Talorchestia rectimana* (Dana) is known from the interior of Tahiti. Pacific islands, atolls or archipelagos from which amphipods have been described include: Caroline Islands (Barnard, 1965), Fiji (Myers, 1985c), Gambier and Tuamotu (Chevreux, 1908), Hawaii (Barnard, 1970), Kapingamarangi (Barnard, 1965), Kiribati and Tuvalu (Schellenberg, 1938), Marshall Islands (Schellenberg, 1938, Barnard, 1965), New Caledonia (Ledoyer, 1984), Niue (Myers, 1986a), and Tonga (Myers, 1986b).

Present work revealed a low biomass of marine amphipods in the Society Islands when compared with other well studied Pacific Islands. This was also noted by Ledoyer (personal communication). Chevreux (1908)

reported low amphipod density in the Gambier and Tuamotu archipelagos. Myers (1985c) recorded amphipod densities of over 4,000 m⁻² in *Sargassum* on a fringing reef on Viti Levu, Fiji. In the Society Islands, maximum densities of amphipods in similar habitats rarely exceeded 400 m⁻².

Biogeographically, the shallow-water amphipod fauna of the Society Islands can be seen to be most closely allied to that of Fiji, Tonga and New Caledonia (five uniquely shared species) and only remotely to that of Hawaii (one uniquely shared pair of sister species). Omitting the new species currently unknown outside the Society Islands, the remainder are broadly central west Pacific or Indo-Pacific, one (*Hyale affinis*) is eastern Polynesian (Niue, Society Islands, Gambier, Hawaii) and one (*Bemlos dentischium*) is Atlanto-west Pacific (Florida, Bahamas, Tonga, Western Samoa, Society Islands).

Figures and descriptions of five species and one subspecies new to science are provided, along with figures and comments on five species which either show variation