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## New species of *Floresorchestia* from Micronesia living in unusual habitats (Crustacea, Amphipoda, Talitridae)

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### Abstract

The first freshwater talitrid, *Floresorchestia pohnpei* sp. nov., is described from the island of Pohnpei, Micronesia. *Floresorchestia palau* sp. nov. is described from supralittoral and shallow-water marine habitats in Palau, Micronesia.

**Key words:** Crustacea, Amphipoda, Talitridae, *Floresorchestia*, Micronesia, Pohnpei, Palau, taxonomy, new species

### Introduction

Talitrids are most diverse in supralittoral beach habitats around the world. They are also known from terrestrial forest floors mainly in New Zealand and Australia. Until now they have never been reported from freshwater or subtidal marine environments. The most diverse and wide-spread talitrid genus is *Floresorchestia* with 16 or 17 species ranging from South Africa across the Indian and Pacific Oceans and into the Caribbean Sea.

During a recent survey (2008–2009) undertaken by the USDA Forest Service on the island of Pohnpei, Federated States of Micronesia, talitrids amphipods were collected on the bottoms of inland freshwater streams at 435 to 528 m altitude using surber nets and drift nets. As far as we know these are the first records of talitrid amphipods living in a purely freshwater environment. However, a species, originally described as *Allorchestes recens* Thomson, 1884, but now known as *Parorchestia tenuis* Dana, 1852, was originally described from a freshwater stream in Wellington, New Zealand. *Parorchestia tenuis* is a terrestrial species and the status of *A. recens* is currently unclear.

A second set of collections from the islands of Pelelieu and Koror, in Palau, Federated States of Micronesia, contained a second species from beaches, but also from a shallow water sand bottom just off the beach where it was found in a light trap at 3 m depth.

In this paper we describe both species in the genus *Floresorchestia*.

### Material and methods

The descriptions were generated from a DELTA database (Dallwitz 2005) to the talitrid genera and species of the world. Material is lodged in the Australian Museum, Sydney (AM) and the Oxford University Museum of Natural History (OUMNH). The character which describes the percentage distance of the palm along the posterior margin of the propodus of male gnathopod 2 is measured as the length from the corner of the palm to the base of the propodus divided by the length of the propodus measured from the base of the dactylus to the base of the propodus subtracted from 100. Abbreviations are: D, dactylus; EP, epimeron; G, gnathopod; MD, mandible; Lm, lacinia mobilis; MX, maxilla; MPP, maxilliped; P, pereopod; T, telson; U, uropod; UR, urosome; L, left; R, right.

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