

# The Coastal Talitroid Amphipods of New Caledonia (Amphipoda: Talitroidea)

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**ABSTRACT.** One new genus and three species of talitrid amphipods are described from New Caledonia: *Chroestia amoa* sp. nov., *Talorchestia spinipalma* (Dana, 1852), *Thiorchestia caledoniana* gen. et sp. nov. Descriptions are accompanied by basic ecological information on beaches where the specimens were collected.

## Introduction

Five species of terrestrial talitroid amphipods are currently known from New Caledonia: *Chiltonorchestia pusilla* (Chevreux, 1915); *C. starmuhlneri* (Ruffo & Vesentini Paiotta, 1972); *Ignamborchestia sarasini* (Chevreux, 1915); *Chevreuxiana antennulata* (Chevreux, 1915); and one beach-hopper, *Talorchestia spinipalma* (Dana, 1852). Most are well described and all but one species appear to be associated with fresh water at altitudes of 300–1000 m. In this paper, based on a collection from around the coastline, we describe two beach-hoppers, i.e., mainly coastal supralittoral / intertidal leaf-litter / wrack, non-substrate modifying talitroids: *Chroestia amoa* sp. nov. and *Thiorchestia caledoniana* gen. et sp. nov., and report new records of *Talorchestia spinipalma* (Dana, 1852) bringing the total talitroidean taxa from New Caledonia to eight.

We also report the sites along the coastline where talitroids were found, and those where no talitroids were found, after applying the same sampling effort. In fact, through a meta-analysis of data from 201 beaches worldwide, McLachlan

& Defeo (2017) concluded that, in terms of resident macrofauna, beaches “behave” like ecological islands, so the single beach unit dimension becomes extremely relevant to describe the distribution of organisms. From this perspective we consider it important to report also those sites where no talitroids were found, as informative zeros. On the assumption that the integration of disciplines requires both clear protocols and matching units (Obergh, 2011), we here present the organism along with standard information related to the “beach unit” where it was collected (unit dimensions summarized in Fanini *et al.*, 2021). Information remains quantitative, though it supports the depiction of patterns and baselines. We encourage further studies based on collections of coastal talitroids to utilize this approach.

## Material and methods

From 24 December 2014 to 6 January 2015 J. K. Lowry and L. Fanini circumnavigated Grand Terre, New Caledonia collecting coastal talitroids at a number of sites (Table 1). Beach units (hereafter “sites”) around the coastline of Grand

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