

Hopping madness: taxonomic troubles with terrestrial Talitridae of Tai Tokerau

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Landhoppers (Crustacea: Amphipoda: Talitridae) are a widespread and diverse presence in New Zealand and other southern lands that once made up Gondwana. However, New Zealand talitrids are not all identified and their biology is poorly studied. Pitfall trapping was conducted in native forest, pine forestry, and shrubland habitats across the Te Pahi Ecological District, to study the species composition and ecology of the talitrid fauna. Four species were found to be widespread and abundant in native forest; *Waematau kaitaia*, *W. reinga*, *W. cf. unuwahao*, and an undescribed *Puhuruhuru* sp. *Waematau kaitaia* and *W. cf. unuwahao* were also present at pine forestry and shrubland sites, while *W. reinga* was absent from these two habitats. *Puhuruhuru* sp. was found at one shrubland site but not from pine forest sites. Close examination of the landhoppers in this study has made us re-evaluate some aspects of the taxonomy and biology of the species encountered. For example, the species we are calling *W. cf. unuwahao* is very similar to the described species *W. unuwahao*, but differs slightly in telson spination. Also, *W. unuwahao* was considered extremely rare and possibly extinct, whereas *W. cf. unuwahao* is widespread and fairly common. Similar uncertainties apply to *W. reinga*. Further morphological study may resolve these uncertainties, but a re-evaluation of some of the characters used to identify New Zealand's talitrids may also be required. In addition, molecular analysis might play an important part in interpreting this apparent variation.

