

Taxonomic Studies on the Talitridae (Crustacea: Amphipoda) of Taiwan. V. The Genus *Brevitalitrus* Bousfield, 1971

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(Received 28 April 2011; Accepted 3 April 2012)

The terrestrial amphipod genus *Brevitalitrus* Bousfield, 1971 (Talitridae) is represented by seven previously described species. In this study, two species of the genus are reported for the first time from Taiwan: *B. hortulanus* (Calman, 1912) collected from the terrestrial habitat of Green Island (=Lu Tao) and *B. kumanoi* sp. nov. from the coastal areas of Nan Bay of the mainland and Lanyu Island. Among its congeners, this latter species is most similar to *B. nesius* (Barnard, 1960) and *B. toli* (Barnard, 1960) in lacking marginal spines on the outer rami of uropods 1 and 2 and in having the propodus of pereopod 6 subequal in length to the basis. It differs from *B. nesius* in having the posterodistal lobe of the basis of pereopod 7 hardly incised at junction, the posterior margin of epimeral plate 3 gently convex, and the distolateral spine of uropod 1 simple, and from *B. toli* by the distally narrowing basis of pereopod 7, the rami of pleopod 2 that are shorter than the peduncle, and the tri-articulate rami of pleopod 3. *Brevitalitrus kumanoi* sp. nov. also differs from *B. hortulanus* in having the peduncle of pleopod 3 subequal in width to those of pleopods 1 and 2 and the outer rami of uropods 1 and 2 without marginal spines. Special attention is paid to the armature of the dactyli of pereopods 3–7 and the sub-categories of the cuspidactylate state. The terms uni-cuspidactylate and bi-cuspidactylate are proposed to better express the relationship of species in the genus. An identification key to all known species of the family Talitridae from Taiwan is provided.

Key Words: Crustacea, Amphipoda, Talitridae, *Brevitalitrus*, new species, cuspidactylate state, Lanyu Island, Green Island, Taiwan.

Introduction

The talitrid genus *Brevitalitrus* Bousfield, 1971 comprises seven described species, which have been recorded from terrestrial habitats of tropical Indo-Pacific islands as follows: *B. hortulanus* (Calman, 1912) known from Kew Gardens, London, the Palau Islands, the Truk (now Chuuk) Islands, and the New Hebrides; *B. toli* (Barnard, 1960) from the Truk Islands; *B. nesius* (Barnard, 1960) from the Ponape (now Pohnpei) Islands; *B. dyaulanus* Bousfield, 1971 and *B. wolffi* Bousfield, 1971 from the Bismarck Archipelago; *B. stephensi* Bousfield, 1971 from Samoa; and *B. strinatii* Stock, 1997 from a lava cave of Mauritius. The occurrence of *B. hortulanus* in London is considered to be due to an artificial introduction.

Our survey of the talitrids of Taiwan has revealed the existence of two species of *Brevitalitrus* there, one of which is identified as *B. hortulanus* while the other is new to science. The present paper provides full descriptions of these two species, with a discussion of the dactyli of pereopods 3–7. This is the first record of the genus *Brevitalitrus* from Taiwan, which expands the northern limit of the distribution of the genus in the Pacific region. An identification key to the species of Talitridae known from Taiwan is provided.

Materials and Methods

Material from Taiwan was collected by the first author and deposited in the collection of the National Museum of Nature and Science, Tokyo, Japan (NSMT) and the National Museum of Natural Science, Taichung, Taiwan, R.O.C. (NMNS). Dissected appendages were mounted temporarily on slide glasses in glycerol and examined under a compound microscope (Olympus), and then remounted in Hoyer's solution as permanent slides. The remaining body parts are preserved in spirit. The size of specimens is denoted by the body length, measured from the base of the antennae to the tip of the telson. The terminology of the appendages and cuticular structures follows Miyamoto and Morino (1999, 2004).

Genus *Brevitalitrus* Bousfield, 1971

Brevitalitrus Bousfield, 1971: 284 (type species: *Talitrus hortulanus* Calman, 1912).

Emended Diagnosis. Eyes small, rounded. Antenna 1 extending beyond middle of peduncular article 5 of antenna 2, peduncular article 3 elongate. Left mandible with 4-dentate lacinia mobilis. Maxilla 2 with several blunt spines on edges of outer and inner plates, with a few brushy sharp