Two New Species of Microloxoconcha (Crustacea: Ostracoda: Podocopida) from Japan, with a Redescription of the Genus

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In the original description, the interstitial ostracod genus Microloxoconcha Hartmann, 1954 was diagnosed by the morphology of its carapace and the number of segments in the antennula, antenna, and mandibula; these characters, however, are frequently shared with other taxa. The genus is therefore redescribed with special emphasis on the hinge morphology, antennula form, and large seventh limb. Furthermore, two new species of this genus are described: M. schornikovi sp. nov. from sandy beaches of the Miura Peninsula, central Japan, and M. kikaijimaensis sp. nov. from Kikaijima Island, Amami Islands, southern Japan. New descriptive terminology is proposed for structural details of the male copulatory organ of Microloxoconcha.

Key Words: Crustacea, Ostracoda, Microloxoconcha, interstitial, new species, Japan, male copulatory organ, morphological terminology.

Introduction

Small animals living in the pore water of sandy sediments are referred to as the interstitial fauna, after Nicholls (1935). At the present time the interstitial fauna is recognized to include representatives of most of the known extant animal phyla. Taxonomic and ecological accounts of interstitial ostracods are much fewer than reports on epibenthic species. It is thus likely that more information on the less well-known group will contribute significantly to the knowledge of the diversity and evolutionary biology of both Ostracoda and Crustacea.

The genus Microloxoconcha Hartmann, 1954 is one of the most widely distributed marine interstitial ostracod taxa. Seven species are currently known: M. compressa Hartmann, 1954 (type species), M. marinovi Schornikov, 1969, M. fragilis Hartmann, 1974, M. subterranea Gottwald, 1983, M. santacruzensis Gottwald, 1983, M. kushiroensis Hiruta, 1989, and M. ikeyai Watanabe, Tsukagoshi and Higashi, 2008. Microloxoconcha(?) barralesi Hartmann, 1965 was tentatively assigned to this genus in the original description (Hartmann 1965), but later Hartmann (1974) excluded it from Microloxoconcha based on unspecified morphological differences in the carapace and appendages. The seven species of Microloxoconcha are distributed across the Mediterranean Sea, the Black Sea, east coast of Africa (Tanzania), northern Japan, and the Hawaiian and the Galapagos Islands, along with one additional species from the Izu Peninsula of central Japan (Watanabe et al. 2008). The