

A review of the hyperiidean amphipod family Cystisomatidae Willemöes-Suhm, 1875 (Crustacea: Amphipoda: Hyperiidea)

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Abstract

A taxonomic review of the hyperiidean amphipod family Cystisomatidae is presented, based on material held by most of the major museums in the world. A new superfamily, Cystisomatoidea, is proposed to accommodate the family Cystisomatidae, based on the unique method of brooding the young, the remnant second antennae in both sexes, and other minor characters inconsistent with the superfamily Vibilioidea in which it was placed previously. The family is currently monogeneric and six species of *Cystisoma* are recognised in this review, including one described as new to science. The new species, *C. gershwiniae* **sp. nov.**, is recorded from the tropical regions of the Atlantic, western Pacific and Indian Oceans, including the Indo-Pacific region. A key to all species is provided. Two species, *C. spinosus* (Fabricius, 1775) and *C. neptunus* Guérin-Méneville, 1842, are considered nomen dubia.

Key words: Amphipoda, Hyperiidea, Cystisomatoidea new superfamily, Cystisomatidae, *Cystisoma*, review, taxonomy

Introduction

The family Cystisomatidae comprises some of the largest hyperiidean amphipods known, with females of some species reaching 140 mm, and males almost 100 mm, in length. They are rarely collected in good condition because of their fragile nature. The head is unusually large for hyperiids, with the eyes restricted to the top half. The body tegument is extremely transparent but relatively tough, so that specimens collected are often intact, despite appearing compressed, crunched up or mutilated.

The family is currently monogeneric, and species are remarkably similar morphologically, and difficult to distinguish. Woltereck (1903) made the first summary of known species followed by Stephensen (1918) who noted mistakes made by previous authors, and added one new species. Vinogradov *et al.* (1982) provided the first useful summary,