

## First Record of the Harpacticoid Genus *Morariopsis* (Crustacea: Copepoda: Canthocamptidae) in Japan, and its Zoogeographic Implications

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*Morariopsis grygieri* sp. nov. is described from two caves in the town of Taga, in the mountainous flanks of ancient Lake Biwa, and a key to world species of *Morariopsis* is provided. Other known members of the genus live in two disjunct areas: three species are benthic dwellers in Lake Baikal, while three live in subterranean waters of the western Balkan Peninsula, in Slovenia and Croatia. In order to confirm the phylogenetic relationships of our new species, and to test whether the Baikal and Balkan groups represent one colonisation event each or more, a cladistic analysis was performed on all seven species and two outgroup taxa, based on 21 morphological characters. The resulting cladogram shows that the ingroup is well defined by at least two synapomorphies, and that the Baikal group is also a well-defined clade, probably representing a single colonisation event. The three Balkan species are only remotely related to each other, and all probably represent separate colonisations. The new species is not closely related to any of its presently known congeners, and also represents a separate colonisation event. We speculate that the ancestor of this species first colonised benthic habitats of ancient Lake Biwa, during its tectonic formation, and from there colonised subterranean waters in its surroundings during the major climatic changes of the Quaternary. We suggest, as a novel hypothesis, that ancient lakes also act as biodiversity pumps for subterranean habitats.

**Key Words:** Harpacticoida, ancient lakes, biodiversity pump, cladistics, phylogeny, stygofauna.

### Introduction

The canthocamptid harpacticoid genus *Morariopsis* Borutzky, 1931 contains six species (Walter 2010) and has a disjunct distribution, being found so far only in the western Balkans (SE Europe) and the ancient Lake Baikal. The first record was that by Kiefer (1930), who reported on a small collection of subterranean copepods from the Cave of St. Canzian in Italy (now called Skocjanske Jame and in Slovenia), where he briefly described one unusual harpacticoid female as a new species