

A New Species of *Hemicyclops* (Crustacea: Copepoda: Cyclopoida) Found in Plankton at the Mouth of the Jiulong River, Southern China

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A new species of the cyclopoid copepod genus *Hemicyclops*, *H. xiamenensis*, is described from plankton sampled at the mouth of the Jiulong River, southern China. This is the second species of the genus occurring in Chinese waters. The new species is readily distinguishable from its congeners by a combination of features of the fourth pediger, female genital double-somite, caudal ramus, and appendages. Because adults of *Hemicyclops* are ordinarily associated with benthic animals, the planktonic occurrence of the new species may be interpreted as either, 1) a new mode of life involving diel migration, 2) host switching between day and night, or 3) accidental occurrence.

Key Words: Crustacea, Copepoda, *Hemicyclops*, plankton, China, Xiamen.

Introduction

The cyclopoid copepod genus *Hemicyclops* accommodates ca. 40 species from shallow waters of the world (Kim 2000; Boxshall and Halsey 2004; Mulyadi 2005). Recently, Kim (2007) transferred four species to the new genus *Goodingius*. The development and life cycle of *Hemicyclops* are well investigated (Itoh and Nishida 1991, 1995, 1997, 2007, 2008; Kim and Ho 1992; Itoh 2001). Six naupliar and the first copepodid stages are free-swimming and serve for dispersal, and then the first copepodid stage settles on the bottom; the second and subsequent copepodid stages and adults are loosely associated with benthic animals such as polychaetes, echinurans, crabs, and mud shrimps. The first copepodid stage was previously referred to as *Saphirella* based on its unique morphology and predominance in plankton (Itoh and Nishida 1991; Itoh 2001).

During our survey of brackish zooplankton at the mouth of the Jiulong River, China, in September, 2008, we found both sexes of an undescribed species of *Hemicyclops*. This is the second species of *Hemicyclops* occurring in Chinese waters, after *H. mortoni* Boxshall and Humes, 1987 from Hong Kong (Boxshall and Humes 1987). The present paper deals with the description of the new species, with re-