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## First records of three *Tripartiella* species (Ciliophora, Oligohymenophora, Peritrichida) from freshwater fishes along Yangtze River in China

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### Abstract

During parasitological surveys along Yangtze River in China, three species of trichodinid ectoparasites (Ciliophora, Oligohymenophora, Peritrichia) belonging to the genus *Tripartiella* Lom, 1959, were found from freshwater fishes. *Tripartiella obtusa* Ergens & Lom, 1970 and *Tripartiella macrosoma* Basson & Van As, 1987 were found from the same fish host, *Rhinogobio typus*; and *Tripartiella orthodens* Basson & Van As, 1987 was collected from another fish host, *Pelteobagrus nitidus*. These three *Tripartiella* species all fall within the range of morphometry and agree closely in the overall appearance of the adhesive disc with the original populations. In the present work, both *Tripartiella obtusa* and *Tripartiella orthodens* are recorded for the first time in Asia. The host fish, *Rhinogobio typus* was recorded as a new host for *Tripartiella obtusa* and *Tripartiella macrosoma*. For each *Tripartiella* species, detailed descriptions are provided based on the examinations of specimens prepared using the dry silver nitrate impregnation in the present study.

**Key words:** *Tripartiella*, first record, freshwater fishes, Yangtze River, China

### Introduction

Trichodinids are a widely distributed group of ciliate ectoparasites from the family Trichodinidae Claus, 1874. Among the ten genera within family Trichodinidae Claus, 1874, the genus *Tripartiella* Lom, 1959 is seldom reported. Up to now, representatives of this genus are nearly gill parasites of marine and freshwater fishes with less than 20 known species worldwide (Lom, 1959, 1963; Hoffman & Lom, 1967; Lom & Haldar, 1977; Basson *et al.*, 1983; Basson & Van As, 1987).

Since the beginning of this century, a series of trichodinid species parasitic on the freshwater fishes have been reported in China, and those works on trichodinids were mainly along Yangtze River with most studies focused on the genus *Trichodina* (Tang *et al.*, 2007, 2012, 2013; Tang & Zhao, 2006, 2010, 2011; Tao *et al.*, 2008; Yu *et al.*, 2011; Zhao *et al.*, 2007; Zhao & Tang, 2007, 2011). However, when compared with the extremely abundant fishery resources in China, the diversity of freshwater trichodinids is relatively poor and insufficient. So, as part of systematic studies on trichodinids of freshwater fishes in this area, the present paper investigates three freshwater ectoparasitic trichodinids belonging to the genus *Tripartiella* Lom, 1959, one relatively small genus in family Trichodinidae Claus, 1874, which aims to enrich our knowledge of the geographical distribution and diversity of these unknown freshwater parasites.

### Material and methods

The host fishes, *Pelteobagrus nitidus* and *Rhinogobio typus* were obtained from Sichuan and Chongqing area along Yangtze River of China during 2009 to 2012, and then transported back to the laboratory for parasitological examination. Gill smears were made from freshly cultured fishes. Smears with trichodinids were air-dried and impregnated with silver nitrate in order to reveal details of the adhesive disc. The nuclear apparatus was revealed using methyl green-pyronin stain (Foissner, 1991). Examinations of prepared slides were made with a NIKON