



Trichodinids (Ciliophora: Peritrichida) parasitic on gills of freshwater fishes, *Carassius auratus* and *Aristichthys nobilis* from China, with the description of *Trichodina subtiliamata* sp. nov.

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Abstract

Five trichodinid ectoparasites (Ciliophora: Peritrichida) were isolated from two freshwater fishes, *Carassius auratus* and *Aristichthys nobilis* collected from Chongqing, China. *Trichodina subtiliamata* sp. nov. is described from the gills of *Carassius auratus* and characterized by a slender hooked blade. The other four species of trichodinids are: *Trichodina mutabilis* Kazubski & Migala, 1968, *Trichodina uniforma* Van As & Basson, 1989, *Trichodina nigra* Lom, 1960 and *Trichodina kazubski* Van As & Basson, 1989. Comparative descriptions, with photomicrographs and morphometric data, are presented of these trichodinids to establish locality records. Descriptions presented here were obtained by examinations of specimens prepared using the dry silver nitrate impregnation and the methyl green-pyronin staining. Comparisons with closely related species are provided for the new species.

Key words: *Trichodina subtiliamata*, Ciliophora, new species, morphology, freshwater fish

Introduction

For almost half a century, there have been only sporadic species descriptions about trichodinid ectoparasites of freshwater fishes in China (Chen, 1963, 1973; Li, 1990, 2001), and the total number of these species descriptions, based on the specimens impregnated by the dry silver nitrate method is less than 20. Therefore, trichodinid ciliates of freshwater fishes are insufficiently known and require further investigation in China.

The present paper deals with five freshwater ectoparasitic trichodinids belonging to the genus *Trichodina* Ehrenberg, 1838 collected from Chongqing, China, a region where there have been no previous reports of trichodinids. This paper is one of a series of reports on trichodinids of freshwater fishes from Chongqing, China (Hu *et al.*, 2005; Tang *et al.*, 2005a, 2005b, Tang & Zhao 2007; Tao & Zhao, 2006; Zhao *et al.*, 2007, Zhao & Tang 2007), which aims to extend our knowledge of the geographical distribution and diversity of these freshwater parasites.

Material and methods

The host fishes, crucian, *Carassius auratus* (approx 1 yr old and ranging from about 7–26cm in total length) and spotted silver carp, *Aristichthys nobilis* (approx 1 yr old and ranging from about 10–35cm in total length), were collected from culture pools (water supply to the ponds is mainly river water.) in Chongqing, China during the period from February, 2003 to April, 2005. Each host was necropsied and examined under the binocu-