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Description of a new marine cyrtophorid ciliate, *Brooklynella sinensis* n. sp. from the China Sea with a new definition of the genus *Brooklynella* (Protozoa, Ciliophora, Cyrtophorida)

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Abstract

The morphology and infraciliature of the new marine ciliate, *Brooklynella sinensis* n. sp., collected from the coastal water off Qingdao, China, have been investigated using live observation and protargol impregnation method. The new species is characterized by: size 40–50 × 20–30 μm *in vivo*, body highly flattened, reniform to oval in outline; 15–17 ventral kineties, of which the rightmost three to four rows extend apically; five postoral kineties without cilia; about six nematodesmal rods; podite about 6 μm long; two contractile vacuoles diagonally positioned; free-living, marine habitat. The new species can be distinguished from the type form *B. hostilis* Lom & Nigrelli, 1970 in having smaller body size, fewer somatic kineties and contractile vacuoles, and a distinct finger-like podite. Based on the present as well as previous work, an improved diagnosis for the genus *Brooklynella* is suggested: Hartmannulidae with a definitive podite, of which the base is located at posterior ventral portion of cell, but not surrounded by somatic kineties; postoral and left kineties considerably shorter than right ones, terminating at about the same level of post-equator rather than progressively posteriorly shortened. The characteristics of *B. sinensis* n. sp. namely the continuous ventral ciliature like hartmannulids and non-ciliated postoral kineties and the reduced number of nematodesmal rods like dysteriids, suggests it could be an intermediate form between families Hartmannulidae Poche, 1913 and Dysteriidae Claparède & Lachmann, 1859.

Key words: *Brooklynella sinensis*, Ciliophora, new species, morphology, infraciliature

Introduction

Cyrtophorid ciliates are diverse groups that usually dominate the benthic or periphytic ciliate community, contributing greatly to marine microbial food webs (Deroux 1970; Gismervik 2004; Gong *et al.* 2005a), whereas the α-diversity of these species within

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