

Notes on a new marine peritrichous ciliate (Ciliophora: Peritrichida), *Zoothamnium xuianum* n. sp., with redescription of *Z. paraentzii* Song, 1991 from northern China

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Abstract

The morphology, infraciliature and silverline system of two marine peritrichous ciliates, *Zoothamnium xuianum* n. sp. and *Z. paraentzii* Song, 1991, collected from a shrimp-hatching plant in northern China, were investigated using both *in vivo* and silver impregnation methods. The new species is recognized by the following characters: colony alternatively branched, zooids *in vivo* about $45 \times 30 \mu\text{m}$ with single-layered peristomial lip; contractile vacuole apically located; macronucleus band-like and transversely positioned; more than 50 striations from peristomial area to aboral trochal band, about 14 from aboral trochal band to scopula; three equally long kineties in peniculus 3 parallel to each other. Based on both the Qingdao population and the original description, an improved diagnosis for *Z. paraentzii* is suggested: marine *Zoothamnium* with irregularly dichotomously branched stalk; zooid $50\text{--}80 \times 25\text{--}45 \mu\text{m}$ *in vivo* with single-layered peristomial lip; contractile vacuole apically positioned; macronucleus C-shaped, transversely orientated; number of silverlines between anterior end and aboral trochal band about 75–83, between aboral trochal band and scopula, 28–33; inner row of peniculus 3 displaced from the other two and converges with peniculus 1 at aboral end.

Key words: *Zoothamnium xuianum* n. sp.; *Z. paraentzii*; marine ciliate; Peritrichida; morphology

Introduction

Peritrichous ciliates comprise a large number of species from marine, limnetic and terrestrial habitats (Jankowskii 1976; Ji & Song 2004; Ji et al. 2005; Kahl 1933; Precht 1935; Sommer 1951; Song 1986, 1991a, 1991b, 1997; Stiller 1971). Among the colonial forms, members of genus *Zoothamnium* are commonly found in marine biotopes, and usually as ectocommensals on aquatic animals including some cultured animals of