

**Morphology and infraciliature of the oligotrich ciliate *Strombidium rapulum* (Yagiu, 1933) Kahl, 1934 (Protozoa, Ciliophora, Oligotrichida) from the intestine of sea urchin *Hemicentrotus pulcherrimus* Agassiz**

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**Abstract**

The morphology and infraciliature of a poorly known endocommensal ciliate, *Strombidium rapulum* (Yagiu, 1933) Kahl, 1934, isolated from the intestine of the sea urchin *Hemicentrotus pulcherrimus* Agassiz, was investigated based on observations of specimens from living cells and fixed protargol impregnated cells. An improved diagnosis is given based on previous and current studies: large sized marine *Strombidium in vivo* 50–130 × 25–65 µm; dorsoventrally slightly flattened; outline ovate and turnip-shaped, tapering posteriorly and terminating in an elongate tail; apical protrusion about 5 µm long in live cells; one elongated macronucleus; girdle kinety equatorial composed of about 57 monokinetids; ventral kinety located subcaudally on right margin, composed of about 5 dikinetids; on average 16 anterior and 29 ventral membranelles.

**Key words:** Endocommensal ciliate; morphology; *Strombidium rapulum*; sea urchin; redescription

**Introduction**

It has been established that the intestine of sea urchins harbours a diverse population of ciliated protozoa (Berger 1964; Powers 1935; Uyemura 1932). Ciliates in this biotope from all over the world have been studied for more than a century and numerous new taxa have been reported (Berger 1964; Foissner 1985; Powers 1935; Song *et al.* 1999; Uyemura 1932), and most of these organisms have been only superficially described using classical methods (Poljansky 1951; Powers 1933a, b, 1935; Yagiu 1933, 1935).

During a survey on the endocommensal ciliates of sea urchins in the coast of Qingdao (Tsingtao), an oligotrich ciliate collected from the intestine of *Hemicentrotus pulcherrimus* was investigated and considered to be a poorly known form, *Strombidium rapulum*. For the first time, this species is outlined at infraciliature level.

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