Phylogenetic Position of the Genus *Cyrtostrombidium*, with a Description of *Cyrtostrombidium paralongisomum* nov. spec. and a Redescription of *Cyrtostrombidium longisomum* Lynn & Gilron, 1993 (Protozoa, Ciliophora) Based on Live Observation, Protargol Impregnation, and 18S rDNA Sequences

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Abstract

We redescribe *Cyrtostrombidium longisomum* Lynn & Gilron, 1993, the type species of the genus *Cyrtostrombidium*, and describe the new species *Cyrtostrombidium paralongisomum* n. sp. using live observation, protargol staining and molecular data. The morphological characters of these two species are clearly distinct, i.e., dikinetid numbers in the girdle and ventral kineties; however, it is difficult to separate them by 18S rDNA sequences because they differ by only 8 bp, indicating that 18S rDNA sequences are insufficient for separating different species in the genus *Cyrtostrombidium*. We not only observed the position of the oral primordium in the genus *Cyrtostrombidium* but also observed a possibly homoplasious trait, a dorsal split in the girdle kinety, in (1) *Apostrombidium*, (2) *Varistrombidium*, and (3) *Cyrtostrombidium*/ *Williophrya*. This partially supports the hypothesis of somatic ciliary pattern evolution recently put forth by Agatha and Strüder-Kypke.