

# Morphological and molecular characterization of a new species of *Euplotes* (Ciliophora, Hypotrichida, Euplotidae) and suggestion of a new genus

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## SUMMARY

A new *Euplotes* ciliate collected from the estuary of the Taehwagang River in Ulsan, Korea is characterized by its morphology and 18S rRNA gene sequence. The new species is unique in size, shape, nuclear apparatus, and infraciliature compared to congeners. The major differences between *Euplotes* n. sp. and its most similar species, *E. raikovi*, are the position and number of fronto-ventral and transverse cirri. The SSU rRNA gene of *Euplotes* n. sp. is sequenced and analyzed phylogenetically. The molecular phylogenetic inferences using BI, ML, NJ, and MP show that *Euplotes* n. sp. is closely related to *E. raikovi* and *E. nobilii*. Its sequence similarities with them are, respectively, 82.35% and 81.83%. The morphological and molecular phylogenetic inferences suggest establishing a new species and a new genus.

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