

# First report on the colony-forming freshwater ciliate *Ophrydium versatile* in an African river

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## Abstract

*Ophrydium versatile* (Müller 1786) Ehrenberg 1830 – a symbiotic ciliate that forms gelatinous colonies – is widely distributed in temperate lakes in Europe and America, but has not previously been recorded from rivers. In this paper we report the first record of *O. versatile* in an African river, based on an identity confirmed by molecular taxonomic identification. The limnological conditions within the Lephala River during the sampling period were characterised as oligotrophic with low DOC concentrations, similar to the conditions observed in temperate northern hemisphere lakes where these organisms have been recorded previously. The majority of *O. versatile* colonies occurred in areas where thin orange-coloured films containing high concentrations of iron (> 60% Fe) covered the substrate and bedrock of the river; this may be related to the abundant picophytoplankton that were associated with these films and oligotrophic conditions. The planktonic diatom *Gomphonema venusta* Passy was dominant in the water column throughout the study period and acted as an environmental indicator of low electrical conductivity (EC) conditions in the habitat where *O. versatile* colonies were recorded.

**Keywords:** Lephala River, oligotrophic indicator, water quality