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Abstract 18

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Morphological Characterization of Two *nomen nudum* Hypotrichs (Protozoa, Ciliophora): *Oxytricha nova* and *Oxytricha trifallax*.

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Oxytricha nova and *O. trifallax* were named and established as viable genetic system (via frozen resting cysts) by molecular biologists, but never determined or described in a classical morphological sense. Thus, their identity is unknown and both are nomen nudum species according to the International Code of Zoological Nomenclature. In the present paper, this bewildering situation is rectified by investigating offsprings of the original populations. It is shown, by a detailed literature review and morphological analysis, using life observation, silver impregnation and scanning electron microscopy, that both populations belong to a single morphotype, viz. *Sterkiella histriomuscorum*, a cosmopolitan species very frequent in limnetic and terrestrial habitats. However, on the molecular level, *O. nova* and *O. trifallax* are very distinct, suggesting that they are different species. Thus, *S. histriomuscorum* is a complex of sibling species. For the sake of nomenclatural continuity and priority, we suggest to identify *O. trifallax* as *S. histriomuscorum* and to establish *O. nova* as a new species. Both species are diagnosed by a combination of morphological and molecular biological characters. Field populations of *S. histriomuscorum* should be designated as "*Sterkiella histriomuscorum* complex", if no molecular data are available to decide whether they belong to *O. nova*, *S. histriomuscorum*, or to another not yet described species of the complex. Supported by the Austrian FWF, Project P-12367-Bio.

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