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Comparative phylogenetic study of Stichotrichia (Alveolata: Ciliophora: Spirotrichea) based on 18S-rDNA sequences

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ABSTRACT. Since molecular phylogenies of stichotrich ciliates started to be published, some remarkable contradictions to morphology-based classifications have been reported, such as the *C*onvergent *E*volution of *U*rostylids and *U*roleptids (CEUU) hyphothesis, the *Halteria* paradox, the polyphyly of *Oxytricha* and of Stichotrichia. We hypothesized the internal phylogeny of 18S-rDNA from 53 morphological species of stichotrichs and their relationships with Hypotrichia and Oligotrichia using parsimony and neighbor-joining methods, including new data from *Pseudouroleptus caudatus* and *Strongylidium pseudocrassum*. Competing phylogenetic scenarios were compared using statistical tests, and the results suggest the reconsideration of both CEUU and the position of *Halteria* among flexible-body oxytrichids. The polyphyly of *Oxytricha* was not rejected and the monophyly of Stichotrichia was accepted based on parsimony analysis if *Pseudoamphisiella* is considered an external (discocephalid related) taxon.

Key words: CEUU; *Halteria*; *Oxytricha*; *Strongylidium*; *Pseudouroleptus*

