

Phylogenetic analysis within the class Spirotrichea (Ciliophora) inferred from small subunit
(ssu) rDNA

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The Spirotrichea represents one of the most diverse classes of the Ciliophora. The main goal of our study is to clarify the phylogenetic relationships within the Spirotrichea. Therefore, we examined the ssu rDNA of more than 20 species, which belong to 3 orders and approximately 6 families of the subclass Stichotrichia.

In particular our investigation focuses on the relationships within the Oxytrichidae and the Urostylidae. Former studies which dealt with the phylogenetic relationships of the Oxytrichidae indicate a separation into the Oxytrichinae and the Stylonychinae. The analyses of our expanded dataset confirms this separation. However, only the Stylonychinae forms a monophyletic group, while the Oxytrichinae seems to be paraphyletic in these analyses.

Sequence analyses of further species of the Urostylidae show that this family is not monophyletic. One group of the Urostylidae forms the sistergroup to all remaining representatives of the subclass Stichotrichia, while the other species are found within this subclass.

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