

# **Beyond the "Code": A Guide to the Description and Documentation of Biodiversity in Ciliated Protists (Alveolata, Ciliophora)**

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## **Abstract**

© 2017 The International Society of Protistologists. Recent advances in molecular technology have revolutionized research on all aspects of the biology of organisms, including ciliates, and created unprecedented opportunities for pursuing a more integrative approach to investigations of biodiversity. However, this goal is complicated by large gaps and inconsistencies that still exist in the foundation of basic information about biodiversity of ciliates. The present paper reviews issues relating to the taxonomy of ciliates and presents specific recommendations for best practice in the observation and documentation of their biodiversity. This effort stems from a workshop that explored ways to implement six Grand Challenges proposed by the International Research Coordination Network for Biodiversity of Ciliates (IRCN-BC). As part of its commitment to strengthening the knowledge base that supports research on biodiversity of ciliates, the IRCN-BC proposes to populate The Ciliate Guide, an online database, with biodiversity-related data and metadata to create a resource that will facilitate accurate taxonomic identifications and promote sharing of data.

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## **Keywords**

Cultivation, Information resources, Molecular phylogeny, Morphology, Nomenclature, Phylogenetics, Systematics, Taxonomy, Type specimens