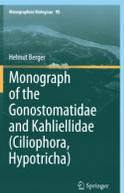


Monograph of the Hypotricha Ciliophora, a treatise dealing with a major group of limnetic protists

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Main Features of the Monograph

- Most detailed revision of hypotrichs ever published
- Detailed explanation of general and specific terms (1, 7)
- Characterization of each supraspecific group and discussion of ground pattern and taxonomic details and problems (2)
- Detailed list of synonyms (3)
- Derivation of each scientific name and discussion of nomenclatural problems (4)
- Easy to use key to each taxon, including hints to illustrations (5)
- Unified descriptions of species
- Summary of all morphometric characterizations available (6)
- Almost all illustrations ever published and many micrographs showing all important details are included; with detailed labelling (7, 8)
- Very detailed ecology section (all published records; generation time, biomass, food, etc. if available) (9)
- Very comprehensive and exact list of references (10); in total about 5500 references
- Systematic index to all names mentioned; two-sided (11)
- Published in the renowned book-series *Monographiae Biologicae* (MB; Springer)
- 4 volumes already available (*Oxytrichidae*, MB 78, 1999; *Urostyloidea*, MB 85, 2006; *Amphisiellidae* and *Trachelostylidae*, MB 88, 2008; *Gonostomatidae* and *Kahliliidae*, MB 90, 2011); volumes 5 (*Uroleptidae*) and 6 (*Spirofilidae*, remaining groups, supplements to other groups, key to all taxa) in preparation
- Expensive; however, 33% discount for Springer authors and cheap electronic versions available!

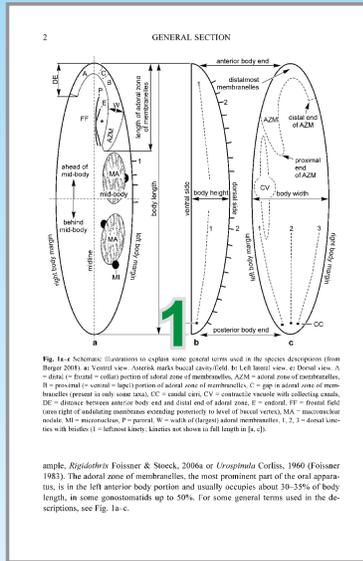


Fig. 1. Schematic illustration to explain some general terms used in the species descriptions (from Berger 2001). In ventral view, anterior body end (abd) is the anterior end of the body. Dorsal, ventral, and posterior body end are indicated. The anterior body end is the anterior end of the body. The dorsal body end is the dorsal end of the body. The ventral body end is the ventral end of the body. The posterior body end is the posterior end of the body. The anterior body end is the anterior end of the body. The dorsal body end is the dorsal end of the body. The ventral body end is the ventral end of the body. The posterior body end is the posterior end of the body.

ample, *Rigidulites* Foissner & Stecek, 2006a or *Urospira* Corliss, 1960 (Foissner 1983). The adoral zone of membranelles, the most prominent part of the oral apparatus, is in the left anterior body portion and extends about 30-35% of the body length, in some gonostomatids up to 50%. For some general terms used in the descriptions, see Fig. 1a-c.

Key to *Gonostomum* species
Identification of *Gonostomum* species is difficult and should be confirmed by protargol preparations, especially in the group with particularly extending frontoventral cilia. Note that *G. teretius* and *G. macronotum* are only insufficiently described so that the key is probably inexact for these taxa. If you find a *Gonostomum* population with tallied body and lacking transverse cilia, see *Paragonostomum*. When the posterior area bears two cilia rows (except the marginal rows), see *Wahlia* and *Neowahlia*. All these species have a gonostomid oral apparatus (Fig. 3a).

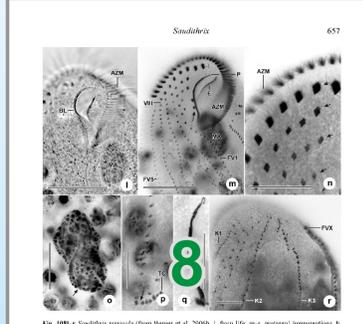


Fig. 8. Scanning electron micrograph (SEM) of a ciliate, showing detailed surface structures and cilia. Labels include AZM, CC, and other anatomical features.

Table 22: Morphometric data on *Kahliliella carinata* (n=10), from Hlaváč 1932a, ac, synonym *Uroleptus* Hlaváč 1932a, ac. Includes columns for Species, n, MD, SE, CV, Min, Max, and various morphometric measurements like Body length, Body width, etc.

Table 23: Systematic section listing various species and their references. Includes species names like *Alphisiella*, *Amphisiella*, *Amphisiella*, etc., and their corresponding page numbers.

SYSTEMATIC SECTION
Characterization (A) - supposed apomorphy: Non-dorsomarginal Hypotricha. Oral apparatus gonostomid (A). More or less strongly modified 18-frontal-ventral-transverse cilia pattern, that is, taxa with roughly 18 frontal-ventral-transverse cilia, but also with distinct rows of strongly increased number of cilia per angle included. Usually one left and one right marginal row. Mostly three bipolar dorsal-kinetids with one or two caudal cilia. Dorsomarginal kinetids and kidney fragmentation lacking.

Characterization (B) - supposed apomorphy: Non-dorsomarginal Hypotricha. Oral apparatus gonostomid (A). More or less strongly modified 18-frontal-ventral-transverse cilia pattern, that is, taxa with roughly 18 frontal-ventral-transverse cilia, but also with distinct rows of strongly increased number of cilia per angle included. Usually one left and one right marginal row. Mostly three bipolar dorsal-kinetids with one or two caudal cilia. Dorsomarginal kinetids and kidney fragmentation lacking.

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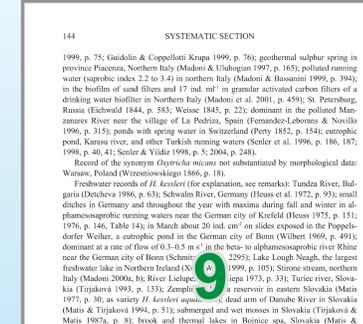


Fig. 10. Scanning electron micrograph (SEM) of a ciliate, showing detailed surface structures and cilia. Labels include AZM, CC, and other anatomical features.

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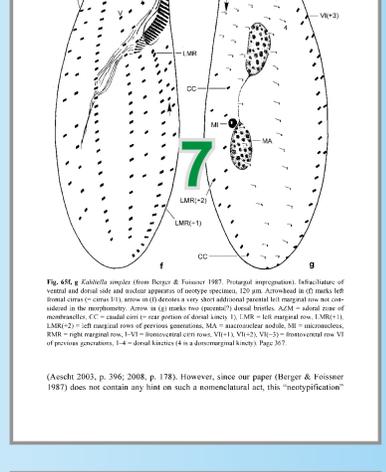
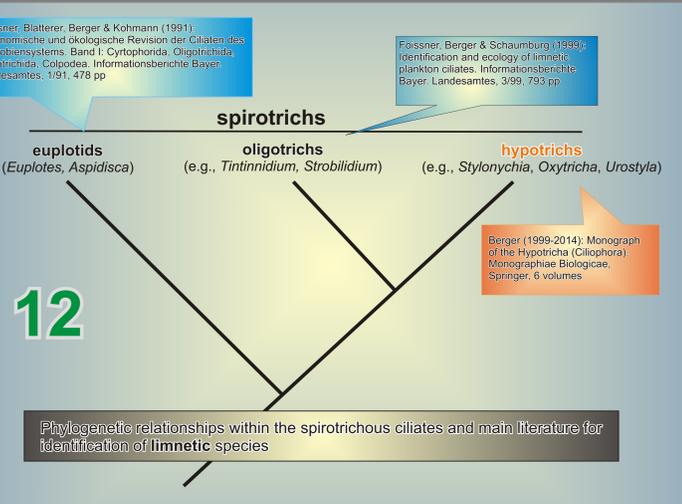


Fig. 11. Scanning electron micrograph (SEM) of a ciliate, showing detailed surface structures and cilia. Labels include AZM, CC, and other anatomical features.

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Abstract
The Hypotricha are a major taxon of the spirotrichous ciliates (12). They are the sistergroup of the mainly pelagic oligotrichs (e.g., *Tintinnidium*, *Limnrostrobilidium*, *Halteria*). The hypotrichs are, inter alia, an important group of the microbial community of limnetic habitats, including hypersaline inland waters where mainly cladocerans live. About 1000 nominal species are described from freshwater (ca. 300), soil, and the sea, and it is estimated that ca. 800 of them are valid. Since 1999, six major groups have been revised in detail and published in the renowned book series *Monographiae Biologicae* (MB, Springer; editors Dumont & Wergler): *Oxytrichidae* (MB 78), *Urostyloidea* (MB 85), *Amphisiellidae* and *Trachelostylidae* (MB 88), *Gonostomatidae* and *Kahliliidae* (MB 90). The penultimate volume deals mainly with the uroleptids while the last part treats the remaining groups, for example, the *Stichotricha* species, which often occur in ponds and running waters, and *Hypotrichidium*, which comprises only pelagic species. All volumes contain detailed keys so that even workers which are not familiar with this group can identify these organisms. For further details, see www.protozoology.com/monograph and exhibits.