

# Monograph of the Hypotricha and Nomenciator Ciliophorum, two useful works for all who deal with ciliates

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## Monograph of the Hypotricha

- ⌚ 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 comprehensive and exact list of references (9); in total about 5500 references
- ⌚ Systematic index to all names mentioned; two-sided (10)
- ⌚ Published in the renowned book-series *Monographiae Biologicae* (MB; Springer)
- ⌚ 4 volumes already available (Oxytrichidae, MB 78, 1999; Urostyloidea, MB 85, 2006; Amphisiliellidae and Trachelostylidae, MB 88, 2008; Gonostomatidae and Kahlidiellidae, MB 90, 2011); volumes 5 (Uroleptidae) and 6 (Spirofilidae, remaining groups, supplements to other groups, key to all taxa) in preparation
- ⌚ Many other interesting details, e.g., listing of accession numbers of type slides and molecular data (if available)
- ⌚ Expensive; however, 33% discount for Springer authors

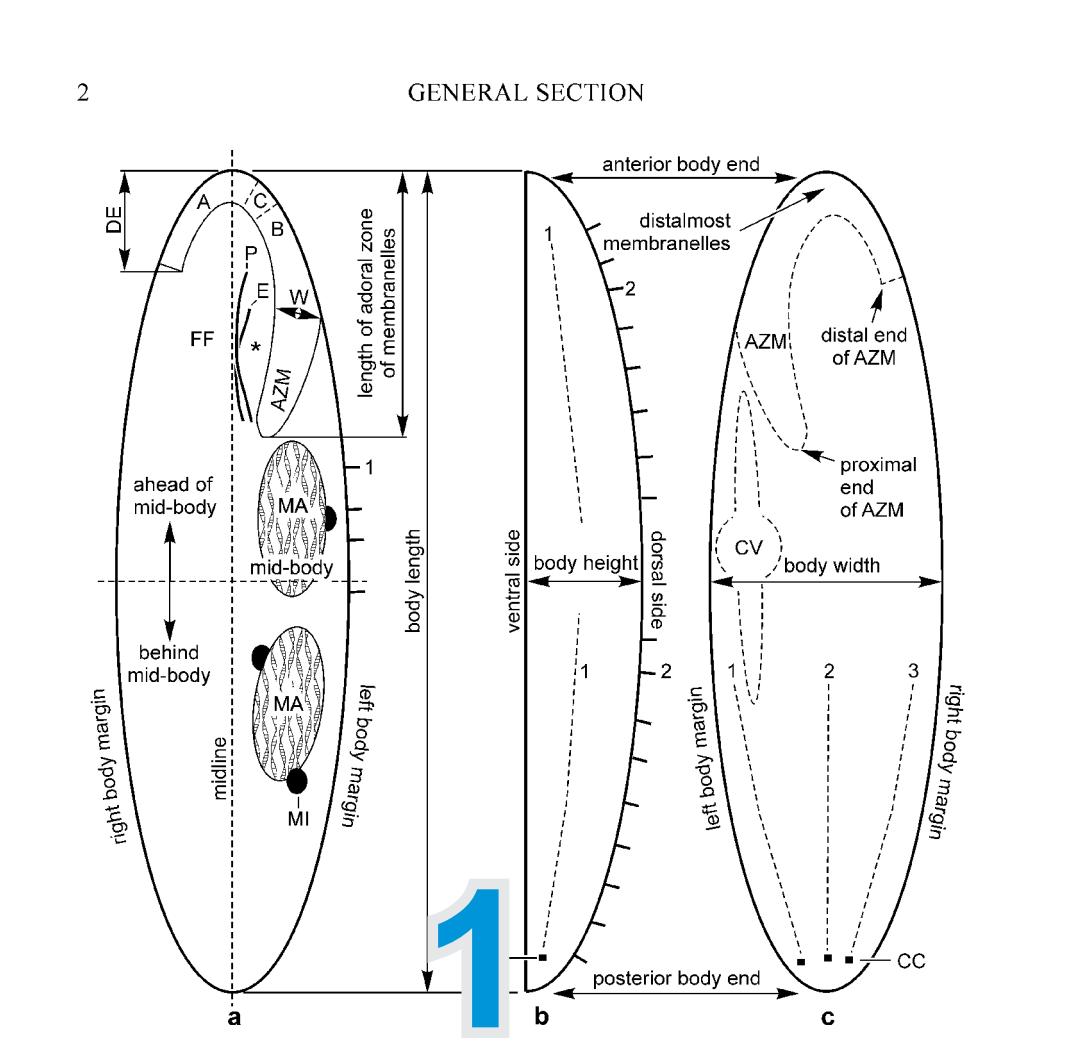


Fig. 1a Schematic illustrations to explain some general terms used in the species description (from Berger 1987). A: ventral view. Austerik: buccal cavity (1), lateral vent (2), ventral view. A: distal (frontal) portion of adoral zone of membranelles, AZM = adoral zone of membranelles; CC = caudal cirri; CV = contractile vacuole with collecting canals; F = frontal row of ciliates extending posteriorly to level of buccal vesicle; MA = macronuclear nodule; MI = micronucleus; P = paroral; W = width of (largest) adoral membranelles; 1, 2, 3 = dorsal kinetics with bases (1 = leftmost kinetic, kinetics shown not in full length in Fig. 1).

ample, *Rigidoflagellum* Foissner & Stoeck, 2006a or *Uropinoda* 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 usually occupies about 30–55% of body length, in some gonostomatids up to 50%. Some general terms used in the descriptions, see Fig. 1a-c.

The pleiomorphies of the gonostomatids (e.g., two marginal rows, caudal cirri present, three bipolar dorsal kinetics) are typical for the Hypotricha. Thus, refer to chapter 2.2 of the general section of Berger (2008, p. 23).

**Aphorism of the Gonostomatidae:** This group has – at the present state of knowledge – only one morphological apomorphy, namely, the striking “gonostomatid” oral apparatus (e.g., Fig. 3a, 24a-d, 206, 21d) in Berger 1999. The adoral zone is more shaped like a V than like a U, as in the other hypotrichs (e.g., Fig. 6a in Berger 1999). The middle portion is straight and even slightly convex (Fig. 15b), causing the proximal portion to become bent (knee-shaped) as phylogeny of genus-group name) towards the centre of the cell (Berger & Foissner 1997, Berger 1999). The adoral zone of membranelles is positioned at the level of adoral kinetics and extends beyond the anterior end of the mouth. It is bounded by the bases of adoral kinetics (Fig. 24d). The buccal cavity is very small and flat. For a general description of the oral apparatus of the hypotrichs, see Berger (1999) and Foissner & Al-Rashed (2006). Perhaps the gonostomatids have further apomorphies, for example, morphogenetic. But I present, too few, to draw any conclusions. In addition, I cannot exclude that some genera of the Hypotricha are non-gonostomatid.

The ground pattern of the Gonostomatidae is briefly discussed (see also remarks). For a brief explanation of the term ground pattern, see chapter 2.2 of the general section of Berger (2008, p. 23).

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