

Abstract

The IAC group (Armophorea: Metopida: Metopidae) includes both free-living and endosymbiotic anaerobic ciliates. The thesis focuses on the diversity of free-living representatives, the so-called metopids. First, the position of the IAC group in the system is explained and the history of the taxonomy of the core species *Metopus* is presented. Then the taxonomic confusion surrounding this group is depicted. For diversity research more than 30 isolates from the IAC group were obtained from various anaerobic habitats and localities. The phylogenetic analysis of the IAC group is based on the 18S rRNA gene and shows a rich diversity of new lineages. In addition to the IAC group, another newly-found lineage of metopids is presented. Light microscopy, including staining techniques and scanning electron microscopy, was used to establish morphological characteristics. In the work, a detailed description of one selected lineage at the species level is performed. In the discussion, the results are interpreted, the limitations of the selected methods are pointed out and the chaotic taxonomic and phylogenetic situation of the IAC group species described. Suggestions for the improvement of future taxonomic practices in the description of metopids are offered.