

### III. KURZBERICHT ÜBER DEN PROJEKTFORTSCHRITT im vorangegangenen Kalenderjahr (muss nicht in Englisch sein)

Kurzbericht zum Kalenderjahr **2015**

**Project Monograph of the family Euplotidae Ehrenberg, 1838 (Ciliophora, Spirotrichea) (1 person, 3 years, 20 h/week).** The present project deals with the Euplotidae, a moderately large taxon already established by Ehrenberg (1838). It belongs to the Euplotia, one of three major groups of the spirotrichous ciliates. According to Berger (2001) and an updated version (unpublished) of this catalogue, about 170 taxa (species, subspecies, varieties, forms) have been described since 1758, the beginning of zoological nomenclature. Previously all these taxa have been assigned to the single genus *Euplotes* Ehrenberg, 1831. Nowadays, they are assigned to several (sub)genera, established by Jankowski (1978) and Borror & Hill (1995) mainly on morphological differences (*Euplotoides*, *Euplotopsis*, *Moneuplotes*). Since then many phylogenetic analyses based on gene sequence data have been published. As is many other ciliate groups, these molecular studies rather often contradict the morphology-based classifications.

In 2015 the revision of *Euplotoides* Borror & Hill, 1995 was continued. This is a morphologically rather good defined genus (characterized, inter alia, by nine frontoventral cirri, a double dargyrome, symbiotic bacteria; mainly limnetic). In addition, the species assigned form a homogenous group in molecular trees supporting the *Euplotoides* concept with *E. patella* (Müller, 1773) as type species. So far, about 2000 papers published from 1773 to 2016 have been included in the revision of *Euplotoides* species. It is planned to publish these results as individual volume because it could be that not the whole group (Euplotidae) can be revised during the course of the project.

The following species are included: *Euplotoides patella* (Müller, 1773) Borror & Hill, 1995; *E. daidaleos* (Diller & Kounaris, 1966) Borror & Hill, 1995; *E. aediculatus* (Pierson, 1943) Borror & Hill, 1995; *E. eurystomus* (Wrześniowski, 1870) Borror & Hill, 1995 (supposed synonyms of *E. eurystomus*: *Euplotes modunensis* Balbiani, 1860 nom. oblit.; *E. plumipes* Stokes, 1884; *E. variabilis* Stokes, 1887); *Euplotoides woodruffi* (Gaw, 1939) Borror & Hill, 1995 (subspecies of *E. woodruffi*: *E. woodruffi woodruffi* (Gaw, 1939) Borror & Hill, 1995 stat. nov.; *E. woodruffi parawoodruffi* (Song & Bradbury, 1997) Borror & Hill, 1995); *E. amieti* (Dragesco, 1970) Borror & Hill, 1995; *E. octocarينات* (Carter, 1972) Borror & Hill, 1995. Since *Euplotes harpa* Stein, 1859 and *E. neapolitanus* Wichterman, 1964 are associated with the *Euplotoides* cluster in molecular trees, these two species are also revised in the first volume. A further chapter is "Little-known *Euplotes* species perhaps belonging to *Euplotoides*" dealing with: *Euplotes carinatus* Stokes, 1885; *Euplotes leticiensis* Bovee, 1957; *Euplotes thononensis* Dragesco, 1960. Last but not least several species indeterminata, which have been mentioned in combination with valid *Euplotoides* species by various workers, are reviewed: *Euplotes caudatus* Meunier, 1910; *Euplotes paradoxa* Kent, 1869; *Euplotes patella flabellata* Margalef López, 1945; *Euplotes patella verticillata* Margalef López, 1945; *Euplotes extensus* Fresenius, 1865; *Euplotes truncatus* Ehrenberg, 1838; *Euplotes truncatus* Meunier, 1910; *Euplotes viridis* Ehrenberg, 1840; *Himantophorus charon* (Müller, 1786) Ehrenberg, 1838; *Uronychia paupera* Daday, 1907. The revision ends with a chapter dealing with (rather many) insufficient redescriptions.

#### References

- Berger H. (2001): Catalogue of ciliate names 1. Hypotrichs. Verlag Helmut Berger, Salzburg. viii & 206 pp.  
Borror A.C., Hill B.F. (1995): The order Euplotida (Ciliophora): taxonomy, with division of *Euplotes* into several genera. – J. Euk. Microbiol. 42: 457–466.  
Ehrenberg C. G. (1838): Die Infusionsthierchen als vollkommene Organismen. Ein Blick in das tiefere organische Leben der Natur. L. Voss, Leipzig.  
Jankowski A.V. (1978): The revision of the system of Polyhymenophora class (Spirotrichia). – Tezisy Dokl. zool. Inst. Akad. Nauk SSSR year 1978: 39–40.

More details see project website: [https://www.protozoology.com/monograph\\_euplotidae/index.htm](https://www.protozoology.com/monograph_euplotidae/index.htm)