



Ultrastructure of the lorica of species (Euglenophyta) from New Jersey, USA

VISITACIÓN CONFORTI

Dpto. de Biodiversidad y Biología Experimental, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires y CONICET. Ciudad Universitaria, Buenos Aires, Argentina

With 107 figures and 1 table

Abstract: A floristic and ultrastructural study on *Trachelomonas* was made in the piedmont region of central New Jersey, USA, where a large number of euglenoid taxa are contained in several freshwater bodies. Abundant and unusual loricated species were found during the observations of samples from these ponds. From the forty-seven taxa determined, eighteen are reported for the first time in the USA. Detailed ultrastructure examination with scanning electron microscopy (SEM) yielded interesting results. Among the taxa described in this work *T. compacta* var. *parvicollis* is proposed as new variety, and four are considered *affinis* to described taxa, *T. bacillifera* var. *collifera*, *T. granulosa*, *T. raciborskii* var. *incerta* and *T. verrucosa* var. *verrucosa* fo. *irregularis*, respectively. Twelve taxa are examined and documented, for the first time ever, with original SEM micrographs.

Key words: Euglenales, Euglenophyceae, freshwater algae, New Jersey (USA), taxonomy, *Trachelomonas*, ultrastructure

Introduction

The genus *Trachelomonas* was described by EHRENBURG (1833), but its complete taxonomical system was published several years later by DEFLANDRE (1926). He described more than 200 species using size, shape, and envelope ornamentation for classification. Since the early days a great controversy exists about what type of characters may be used in this genus taxonomy. At first the specimens were only studied by light microscopy by researchers such as SWIRENKO (1914), PLAYFAIR (1915), BALECH (1944), CONRAD & VAN MEEL (1952), PRINGSHEIM (1953), HUBER-PESTALOZZI (1955), SAFONOVA (1965), POPOVA (1966), YACUBSON & BRAVO (1982-83), STARMACH (1983), TELL & ZALOCAR DE DOMITROVIC (1985), TELL & CONFORTI (1986), PHILLIPOSE (1988), and MENEZES (1991).