



Article

***Encyonopsis neerlandica*, a new freshwater diatom species (Bacillariophyta) from moorland pools in The Netherlands**

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Abstract

A new cymbelloid diatom species, *Encyonopsis neerlandica* sp. nov., is described from several moorland pools from The Netherlands. The new species belongs to the complex of species around *E. microcephala*. Based on light and detailed scanning electron microscopy, the morphology of *Encyonopsis neerlandica* is discussed and compared to similar species from this complex. *Encyonopsis neerlandica* is characterized by its rather large valve dimensions, the narrowly to clearly lanceolate valve outline with convex to weakly convex margins and rostrate to subcapitate apices. The distal raphe fissures are ventrally deflected. There is a clear difference between the rounded areolae near the valve margin and the transapically elongated areolae near the axial area.

Notes on the ecology of the species are included.

Key words: Bacillariophyta, *Encyonopsis*, fens, new species, The Netherlands

Introduction

The genus *Encyonopsis* Krammer (1997a: 11) was described to accommodate a series of small to moderately large freshwater species that formerly belonged to *Cymbella* C. Agardh 1830 showing only weakly dorsiventral, sometimes even naviculoid valves, a filiform, weakly ventrally curved raphe with distal fissures turned to the ventral side and proximal endings turned dorsally, the absence of both apical porefields and isolated pores (stigmata and stigmoids) in the central area, and the presence of small, rounded to transapically elongated areolae arranged in uniseriate striae.

Together with the description of the new genus, Krammer (1997b) described a number of new taxa, splitting the former catch-all species *Cymbella microcephala* Grunow in Van Heurck (1885: 63). Some of these taxa, such as *E. microcephala* (Grunow) Krammer (1997b: 91), *E. subminuta* Krammer & E. Reichardt in Krammer (1997b: 96), *E. minuta* Krammer (1997b: 195) or *E. krammeri* E. Reichardt (1997: 61) are frequently reported from oligo- to mesotrophic, usually colder environmental conditions (Krammer 1997b) (see Table 1 for some important species). Since the description of *Encyonopsis*, only a few taxa from this complex have been described including *E. krammerioides* Lange-Bert. & Rumrich in Rumrich *et al.* (2000: 117) and *E. horticola* Van de Vijver & Compère in Van de Vijver *et al.* (2009: 199).

During a taxonomy workshop on the genera *Encyonema* and *Encyonopsis*, organized by the Dutch-speaking Diatomist Association (NVKD) in 2011, an unusual *Encyonopsis* taxon was discovered in one of the samples brought by the participants, showing features intermediate between *E. subminuta* and *E. krammeri*.