



## ***Planothidium galaicum* sp. nov. (Bacillariophyta, Achnanthesiaceae), a new diatom species from Galician coast, Spain**

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### **Abstract**

A new *Planothidium* species, *Planothidium galaicum* sp. nov. is described on the basis of light and electron microscopy investigations of its frustule morphology. This diatom was found in the epiphyton of *Himantalia elongata* at Muxía coast (Galicia, northwest Spain). A discussion of the morphological features of this taxon and their taxonomic affinities with related species, is presented.

**Key words:** diatoms, morphology, *Planothidium*, new taxon, Galician coast, taxonomy

### **Introduction**

The genus *Planothidium* was proposed by Round & Bukhtiyarova (1996) to include monoraphid taxa around *Achnanthes lanceolata* (Brébisson ex Kützing 1846: 247) Grunow in Cleve & Grunow (1880: 23). Among the most distinctive characteristics of the genus are: the slightly curved cells in girdle view, the bi- or multiseriate transapical striae, the internally thickened interstriae, and the hoof-like lateral structure (or simple breaks in the rows of striae) on one side of the rapheless valve in many species (Round & Bukhtiyarova 1996). The species of the genus *Planothidium* can be separated into four groups according to the features of the central region of the rapheless valve (Morales 2006). The species with continuous striae (“*Planothidium delicatulum*” type) are the first group, in which the new species here described can be included. Species with a space at the central region without depressions or raised portions constitute the second group which is represented by *P. minutissimum* (Krasske 1938: 513) Lange-Bertalot (1999: 284). The third group presents a central region with a “hoof-mark” depression (“*P. lanceolatum*” type). In some taxa the depression is capped to form an internal cave like structure called “cavum”, these species constituting the fourth group morphologically close to *P. frequentissimum* (Lange-Bertalot 1993: 4) Lange-Bertalot (1999: 282).

The present paper uses morphological, ecological, morphometric and ultrastructural data to characterize and describe a new diatom species from the Galician coast (northwest Spain), *Planothidium galaicum* sp. nov. Its relationship with several closely-related taxa such as *P. delicatulum* (Kützing 1844: 75) Round et Bukhtiyarova (1996: 353), *P. septentrionalis* (Østrup 1910: 215) Round et Bukhtiyarova (1996: 353) and *P. engelbrechtii* (Cholnoky 1955: 16) Round et Bukhtiyarova (1996: 353) is discussed.

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