

COMPARATIVE STUDY OF TYPES OF SEVERAL FRESHWATER *NITZSCHIA* OF THE SECTION DISSIPATAE WITH A DESCRIPTION OF A NEW SPECIES

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Morphological examination of type materials of four different diatom species belonging to the section Dissipatae was performed in order to reveal the identity of a new *Nitzschia* species discovered in European freshwaters. Type materials of *Nitzschia bavarica* Hustedt, *N. dissipata* (Kützing) Rabenhorst, *N. media* Hantzsch and *N. rectiformis* Hustedt were studied using light and electron microscopy and their morphology was compared with the new *Nitzschia* species. Except for *N. dissipata*, all findings about species' morphology are in line with previously published data. All examined taxa have very similar morphology, their valves are linear to lanceolate, with distinct, parallel, irregularly spaced fibulae and transapical uniseriate striae difficult to distinguish under light microscopy, uniseriate transapical striae consisting of small round areolae occluded by hymenes externally, prominent raphe lacking an interruption in the centre, terminal raphe fissures hooked to the same side and a distinct conopeum visible also in a light microscope. On the other hand the interspecies differences are rather difficult to define and the most reliable features to separate the taxa are the valve shape, the length/width ratio and the striae density. The new species can be clearly distinguished by the robust valves with subcapitate ends and prominent and very irregular fibulae. So far, it was observed in several small alkaline oligotrophic rivers in France, Luxembourg and Slovakia indicating wide distribution in European freshwaters.