

THE CENTRIC DIATOMS OF TÜRKMEN MOUNTAIN (TURKEY)

Cüneyt Nadir Solak^{1,2} & Maxim Kulikovskiy³¹Department of Biology, Arts and Science Faculty, Dumlupınar University²Department of Palaeoceanology, Institute of Marine Sciences, University of Szczecin³Department of Algology, I. D. Papanin Institute for Biology of Inland Waters, Russian Academy of Sciences

In Turkey, pennate diatoms are the most frequently reported group, while reports of centrics is fewer. Also, there is little information about centric diatoms for springs. The aim of this study was to reveal centric diatoms of the Türkmen Mountain where belongs to the Sakarya river basin. In large cities administrated by metropolitan municipal authorities, domestic wastewater is treated before being released into nearby streams but water treatment facilities are not installed or are out of use in many smaller towns. However, the mountain is one of the best preserved from anthropogenic changes areas in the basin. The localities are situated at the altitude of 954-1710 m a.s.l., and represent typical rheocene springs and small streams of the area. Some stations (Türkmenbaba, Güllüdere, İnli, Çobanlar stations) represent natural conditions, whereas the others (Darıpınar, Dümbüldek, Güllüdere-Türkmenbaba, Lütfiye-Güllüdere) have been eutrophicated by agricultural and antropogenic activities. In this study, the samples were collected from epilithic, epiphytic and epipellic habitats in 10 springs and 5 small streams in the mountain between May and December 2007. As a result, seven centric diatoms were totally revealed belonging to species with widespread distribution in Holarctic. Because of new taxonomical concept for invalid genus *Puncticulata* Håkansson, we suggested a new combination for *Cyclotella balatonis* Pantocsek as *Handmannia balatonis* comb. nov. According to the concept, we also suggested a new combination for another species from this group of species *Handmannia praetermissa* (Lund) comb. nov. in this study. Another result of this study, *Handmannia balatonis* comb. nov. is interestingly new record for Turkey according to the last checklist about Turkish freshwater diatoms and among the species, *Cyclotella meneghiniana* and *C. ocellata* was common diatoms while the other species were very rare in Turkish freshwaters. Also, according to the checklist, *Stephanodiscus hantzschii* and *S. minutulus* were present only in Eastern Anatolian freshwater.