

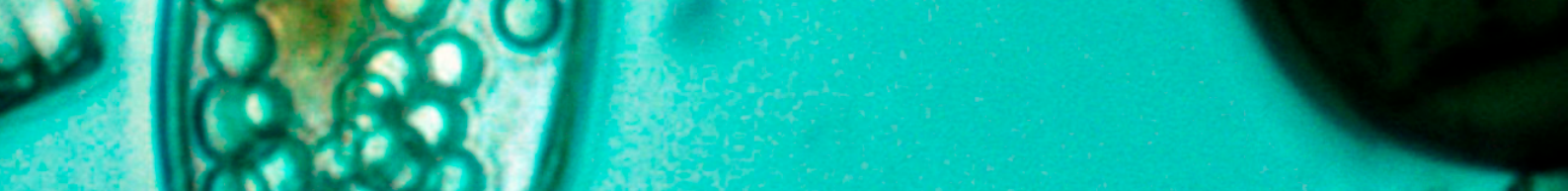


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FROM COMMERCIAL SAND DIGGING TO DIATOMS "HOTSPOT"

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The artificial sandpit lake "Pesvara" is located between the two saline lakes, Lake Velika Rusanda and Lake Mala Rusanda, in the protected zone of Rusanda Nature Park (Vojvodina, Serbia). The lake was created by human activity for the exploitation of sand. The depression (on average 4.4 m deep, around 205 m long, and 107 m wide) was filled with water that can be classified into sodium bicarbonate chemical type. Over time a stable diatom community developed. During observations of the samples collected from the sand and reed during 2019 and 2020, 111 diatom taxa belonging to 37 genera were recorded. 14 diatom taxa and one genus (*Seminavis*) were noted for the first time for the diatom flora of Serbia. Fresh alkaline waters with elevated concentrations of electrolytes (1860–1950 $\mu\text{S}/\text{cm}$) enabled the development of freshwater diatoms (e.g. *Achnantheidium minutissimum*, *Gomphonema parvulum*) but also diatoms characteristic for brackish and coastal waters, such as *Bacillaria paxillifera*, *Entomoneis costata*, *Haslea duerrenbergiana*, *Pleurosigma salinarum*, *Staurophora brantii*, *Seminavis strigosa*, etc. Many of these species have not been found in saline lakes and ponds in the Vojvodina province, which makes "Pesvara" a significant "hotspot" from the aspect of diatom biodiversity. This artificial sandpit lake requires more detailed research in order to obtain a certain degree of legal protection and to prevent possible backfilling and habitat loss for many diatom species.

Keywords: Diatoms, artificial sandpit lake, subsaline water