



## **About the sediment temperature changing of the Lake Fertő/Neusiedler See**

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Lake Fertő/Neusiedler See (309 km<sup>2</sup>) situated on the Hungarian-Austrian border, is the westernmost steppe lake in Eurasia. The mean water depth is 1.1 m. In this shallow lake the radiation (heat and light penetration) directly influence the sediment surface. The Hungarian part of the lake is 75 km<sup>2</sup> and 86 % of it is covered by reed stands. The typical water bodies of the Hungarian part of the lake are open waters, reed stands and open water areas enclosed by reed, the so-called inner ponds. The temperature measurements of sediment of different water bodies took place for each cm from sediment surface till 20 cm sediment depth. The measuring period was between 1987 and 1992 and it followed in 2012. The sediment temperature of the various water bodies reached its maximum in August between 1987 and 1992, but in 2012 its maximum was in September. There was nearly 10 °C difference between sediment temperatures taken in summer and in autumn. During the year, sediment warmed slowly and to different degrees, reached its maximum at every depth in August, and afterwards cooling of the sediment in the subsequent part of the year was faster than its warming. In consequence of climate change the thermic conditions of the sediment and its microbiological processes are altered.

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