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## The *Gomphonema* and *Gomphonella* species from Biebrzański and Wigierski National Parks (North East Poland)

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Diatoms play an important role in the environment. Above all, they are producers oxygen and organic matter (25% of total production), they are the basis of the food chain in the marine and inland waters.

The genus *Gomphonema* was erected by Ehrenberg in 1832. More than 130 species having been described from various parts of the world in the last decade. At present the genus is divided into *Gomphonella* Rabenhorst 1853, *Gomphoneis* Cleve 1894, *Gomphosphenia* Lange-Bertalot 1995, *Gomphosinica* Kociolek, Qingmin, Wang & Liu 2015 and *Gomphonema* genera.

Preliminary analysis of the *Gomphonema* and *Gomphonella* genera in beautiful Biebrzański and Wigierski National Parks revealed the presence of over 45 taxa of 180 species currently known from all of Europe. A number of taxa showed from the National Parks is still exactly undefined regarding their taxonomic position. Some of them are widespread and often found in Poland; others such as *Gomphonema linearioides* are rarely or for the first time reported from the country.

The diatoms unique silica frustules delight with diversity and perfection forms from square, rectangular or triangular, through shapes starry to more complex shapes geometric as well as perfect symmetry and the richness of ornamentation. The *Gomphonema* and *Gomphonella* genera are characterised by large variation with respect to morphological and ultrastructural features. Their real beauty we can admire only under the microscope.