

TAXONOMY AND ECOLOGY OF FRESHWATER DIATOMS OF THE SENEGAL RIVER

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Five years ago, a new international collaboration between Senegal, France Belgium and Luxemburg was started aiming to install a water quality monitoring based on freshwater diatoms for the Senegal River in the northern part of Senegal. With a length of more than 1800 km and a catchment of almost 350.000 km², the Senegal River, forming the border between Senegal and Mali and Mauretania, is the seventh largest river in Africa. During a sampling campaign in 2007, the entire river was sampled from its entry in Senegal near the eastern town of Kidira up to its mouth at the Atlantic Ocean near Saint-Louis. More than 100 samples were taken. For each site, samples were taken for both physico-chemical and diatom analyses. In a first stage, the taxonomy of the observed diatom flora will be revised and the different taxa will be morphologically and ecologically characterized. This will result in the creation of a methodological identification guide facilitating routine water quality monitoring in the future.

The poster presents the different habitat aspects of the Senegal River, the results of the first sampling campaign and the wide diversity of the observed diatom flora. A very diverse and species-rich diatom flora composed of both typical cosmopolitan and African taxa have been found. Several species of both groups are illustrated using both light and scanning electron microscopy. Typical (tropical) cosmopolitan taxa include *Diadesmis confervacea* Kützinger, *Lemnicola hungarica* (Grunow) Round & Basson and *Achnantheidium catenatum* (Bílý & Marvan) Lange-Bertalot. The African flora is mainly dominated by taxa belonging to the genera *Nitzschia* and *Navicula* s.l. Especially within the genera *Placoneis*, *Navicula* and *Sellaphora* a large number of species have been observed with typical taxa such as *Navicula densa* Husted and *Navicula nyassensis* O. Müller. It is clear that several of these taxa will need a taxonomic revision.