

Short facts

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- Mesotrophic to eutrophic water bodies
- Mean depth range: 0.75-2.6 m
- Maximum depth range: 1.5-3.6 m
- Residence time range: 9-301 days
- Origin: riverine (deltaic) lakes
- Polymictic lakes, which freeze in winter

About

The Danube Delta Biosphere Reserve (DDBR), a Ramsar wetland Site and a UNESCO World Heritage Site, is a biodiversity hotspot for numerous species of flora and fauna, including important colonies of 312 breeding and wintering bird species. The riverine lakes at the Danube Delta are generally very shallow (<2.6 m mean depth) with short residence times and mix several times in the year, except in winter months when they freeze over. These lakes exhibit seasonal variability in their primary production with cyanobacterial blooms occurring mainly between midsummer and early autumn.

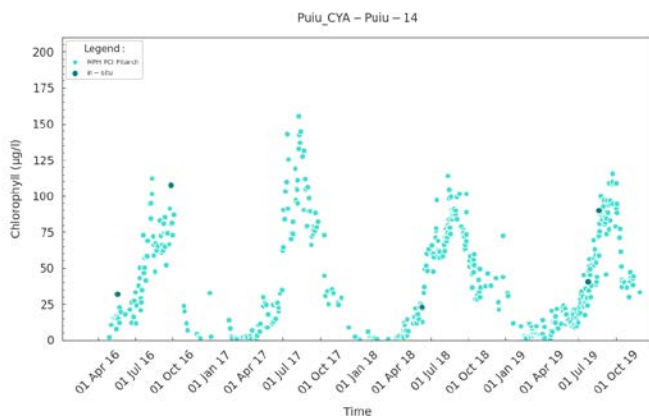
What's up?

The field campaigns in the DDBR took place in spring-summer 2016 and in the summers of 2018 and 2019. INCDDD collected samples from several stations around the lakes, including measurements of chlorophyll-*a* and cyanobacteria pigment concentrations, and water clarity (Secchi disk depth).

Using satellite imagery, the seasonal variability of chlorophyll-*a* can be shown over the last four years (2016-2019), which is in good correspondence to the sparse field measurements. Ranging from very low to almost 200 µg/L, high chl-*a* concentrations give these lakes their characteristic bright green colour in summer months.

Time series

OLCI MPH PCI Pitarch and in-situ chl - a timeseries comparison



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