



Europeiska jordbruksfonden för
landsbygdsutveckling: Europa
investerar i landsbygdsområden



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ÖSTRA
GÖINGE



Why did cyanobacteria start to bloom in Lake Immeln ?



Photo: Johan Forssblad

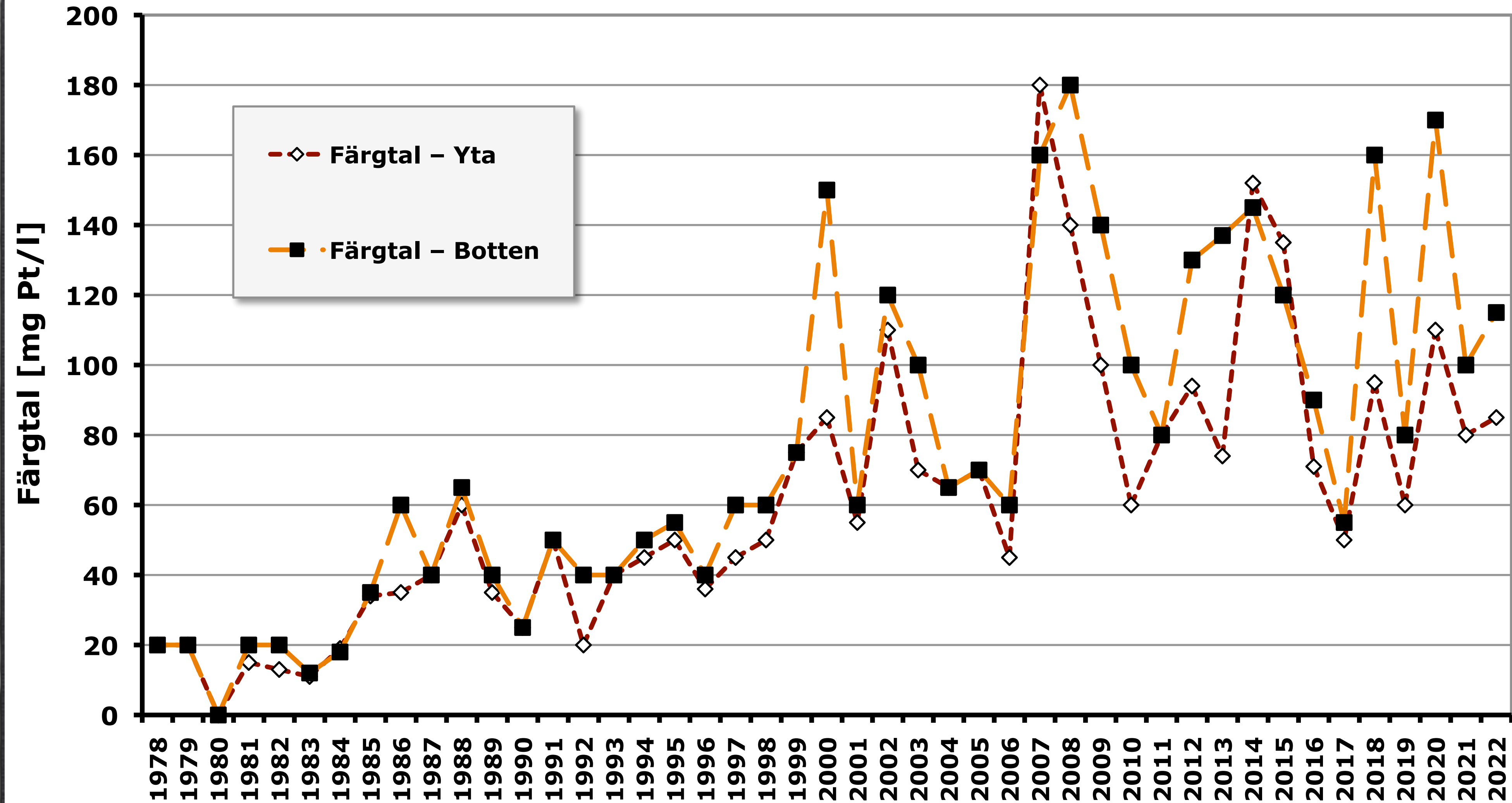
River Ekeshultsån is the main inflow of Lake Immeln



Photo: Johan Forssblad

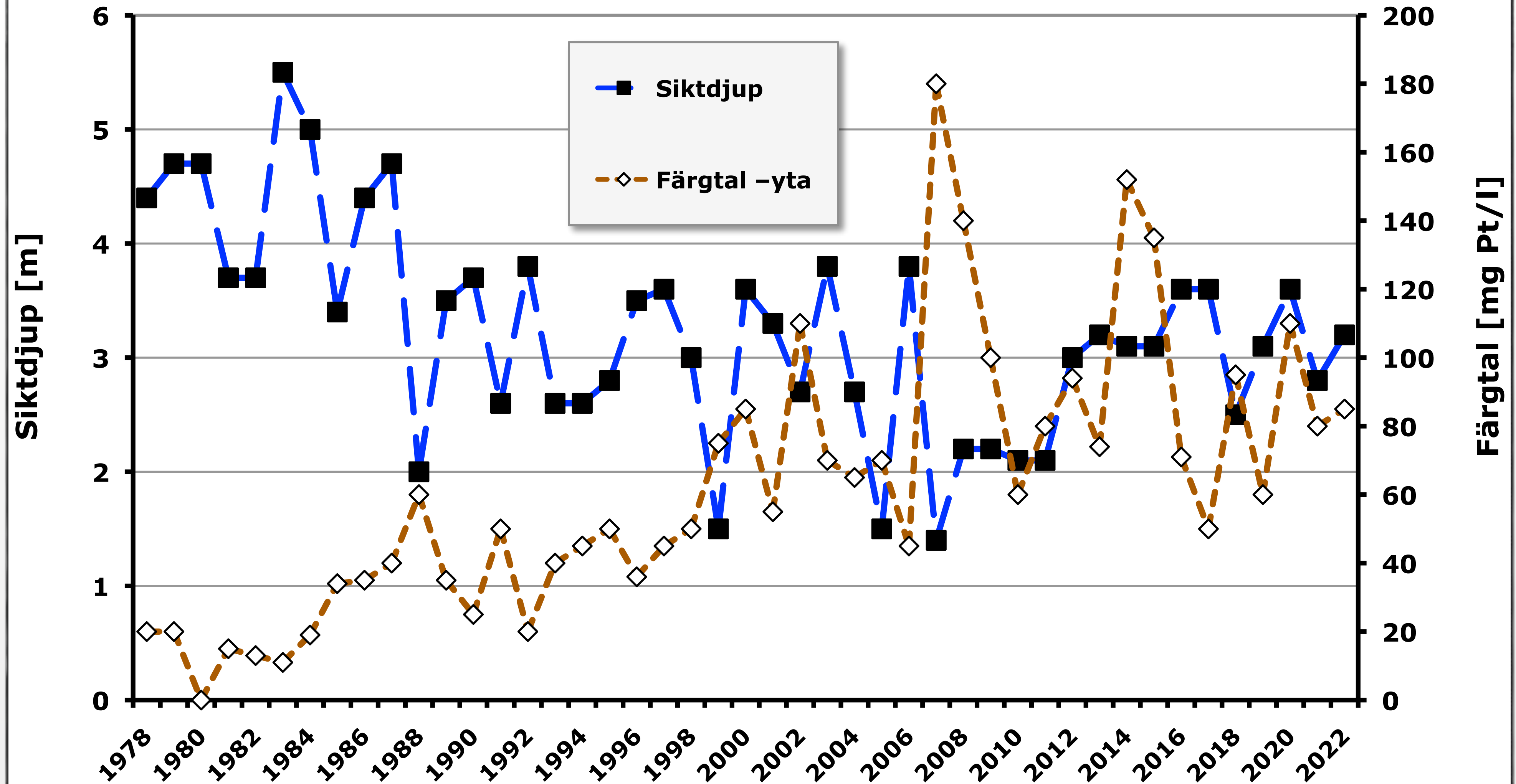
Water colour, Lake Immeln, 1978-2022

Färgtal, Immeln, yta & botten, 1978-2022

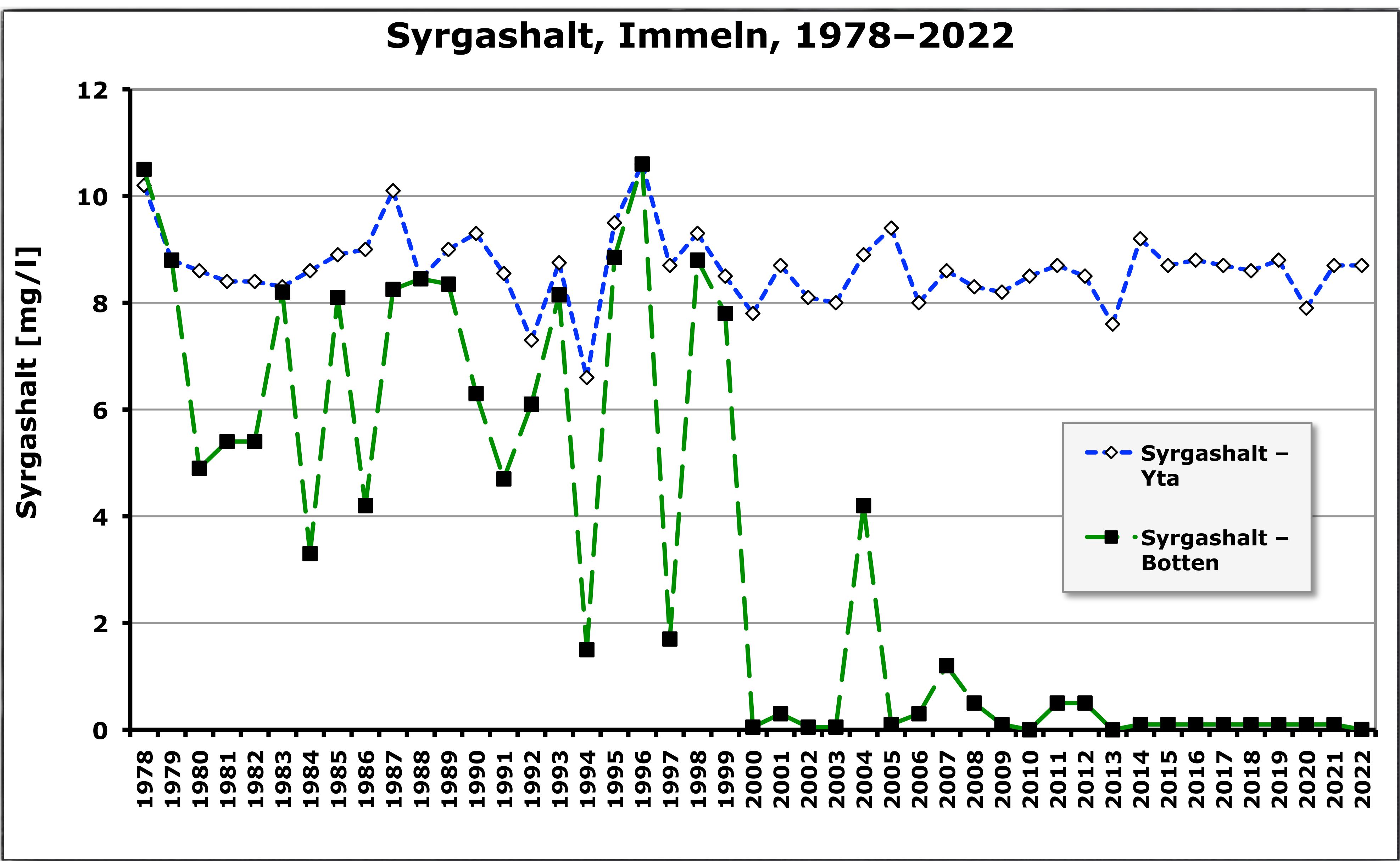


Secchi disc transparency and water colour, Lake Immeln, 1978-2022

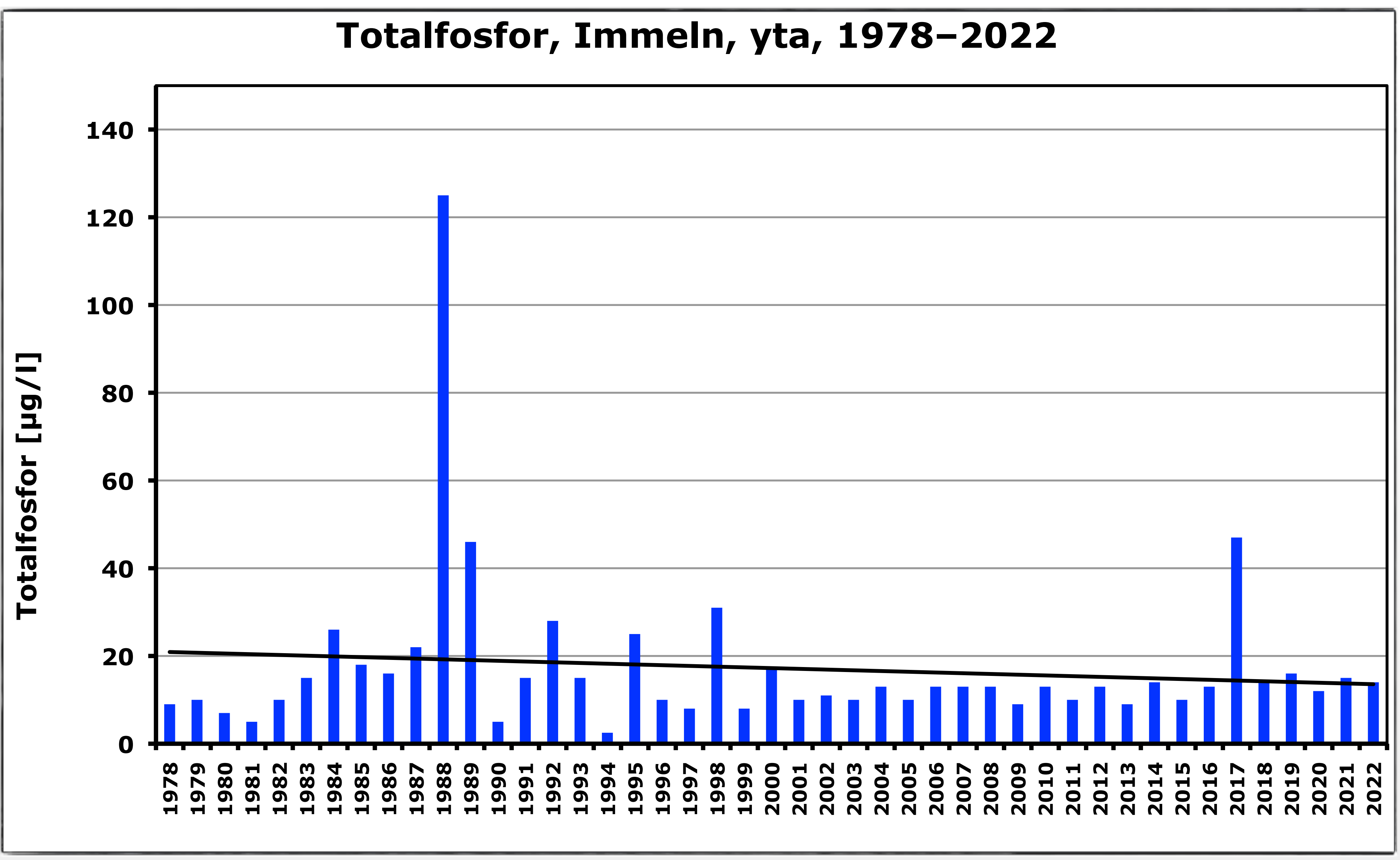
Färgtal, yta och Siktdjup, Immeln, 1978-2022



Level of oxygen, surface and bottom, Lake Immeln, 1978-2022

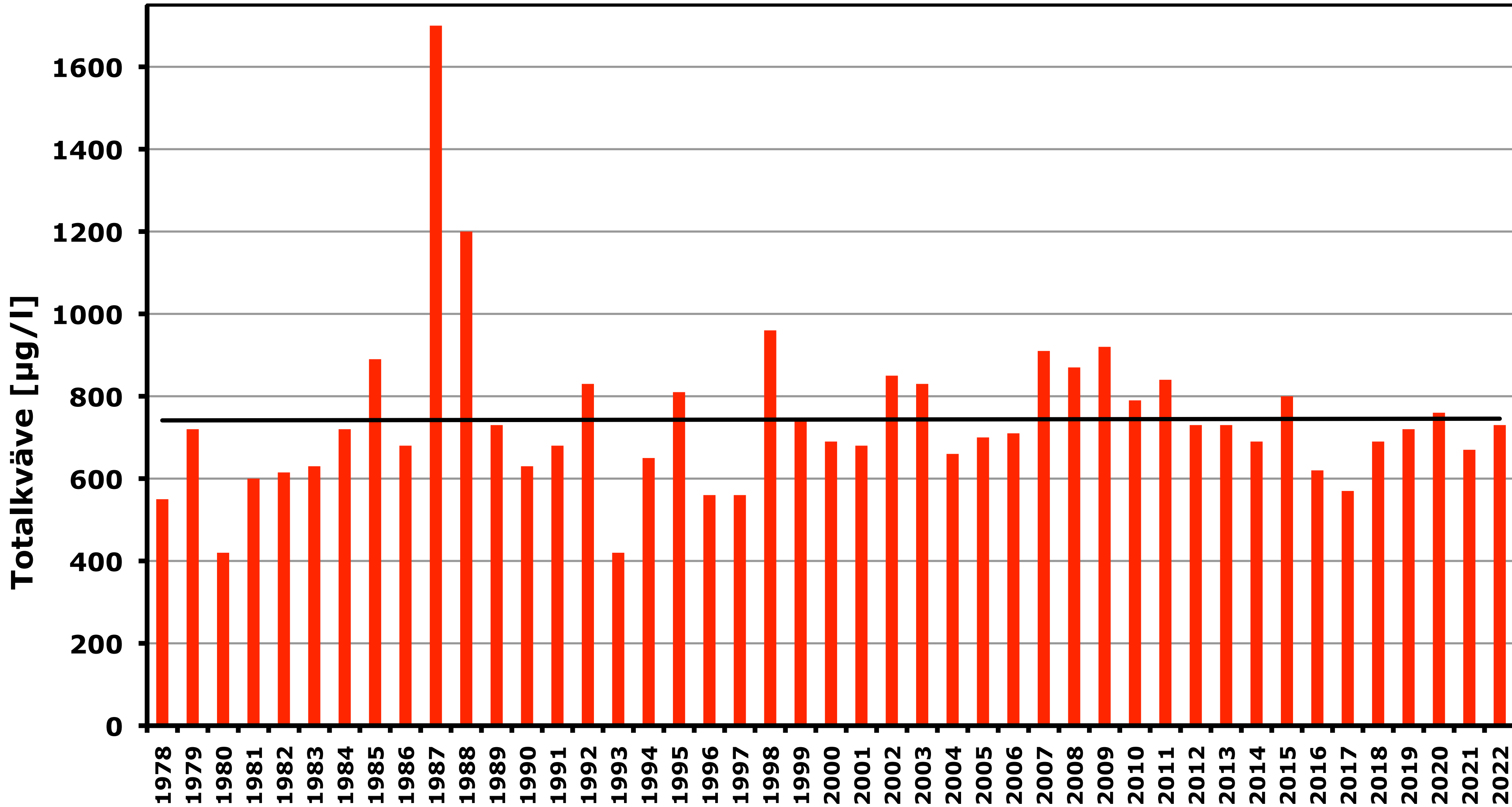


Total phosphorus, surface, Lake Immeln, 1978-2022



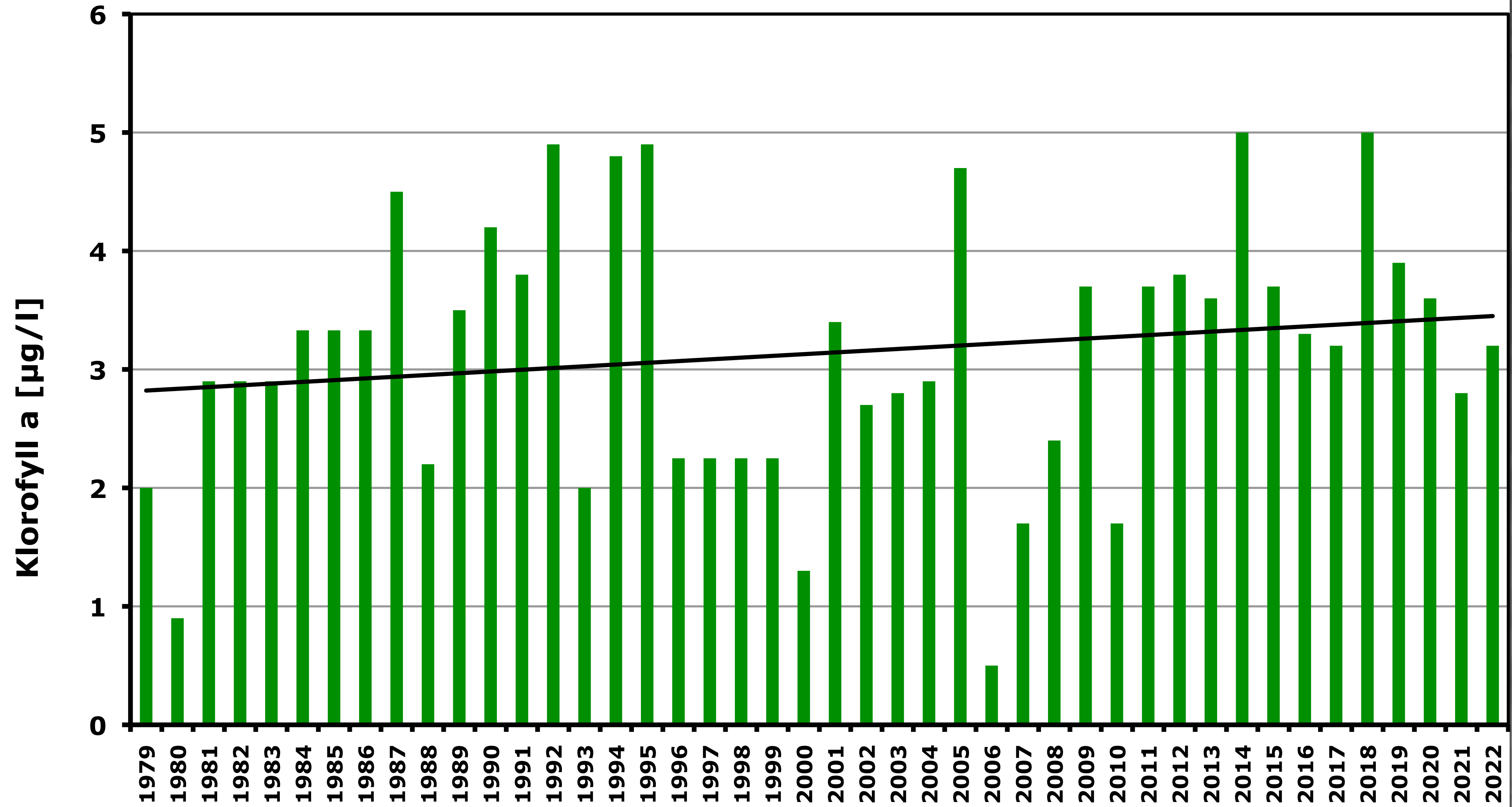
Total nitrogen, surface, Lake Immeln, 1978-2022

Totalkväve, Immeln, yta, 1978-2022



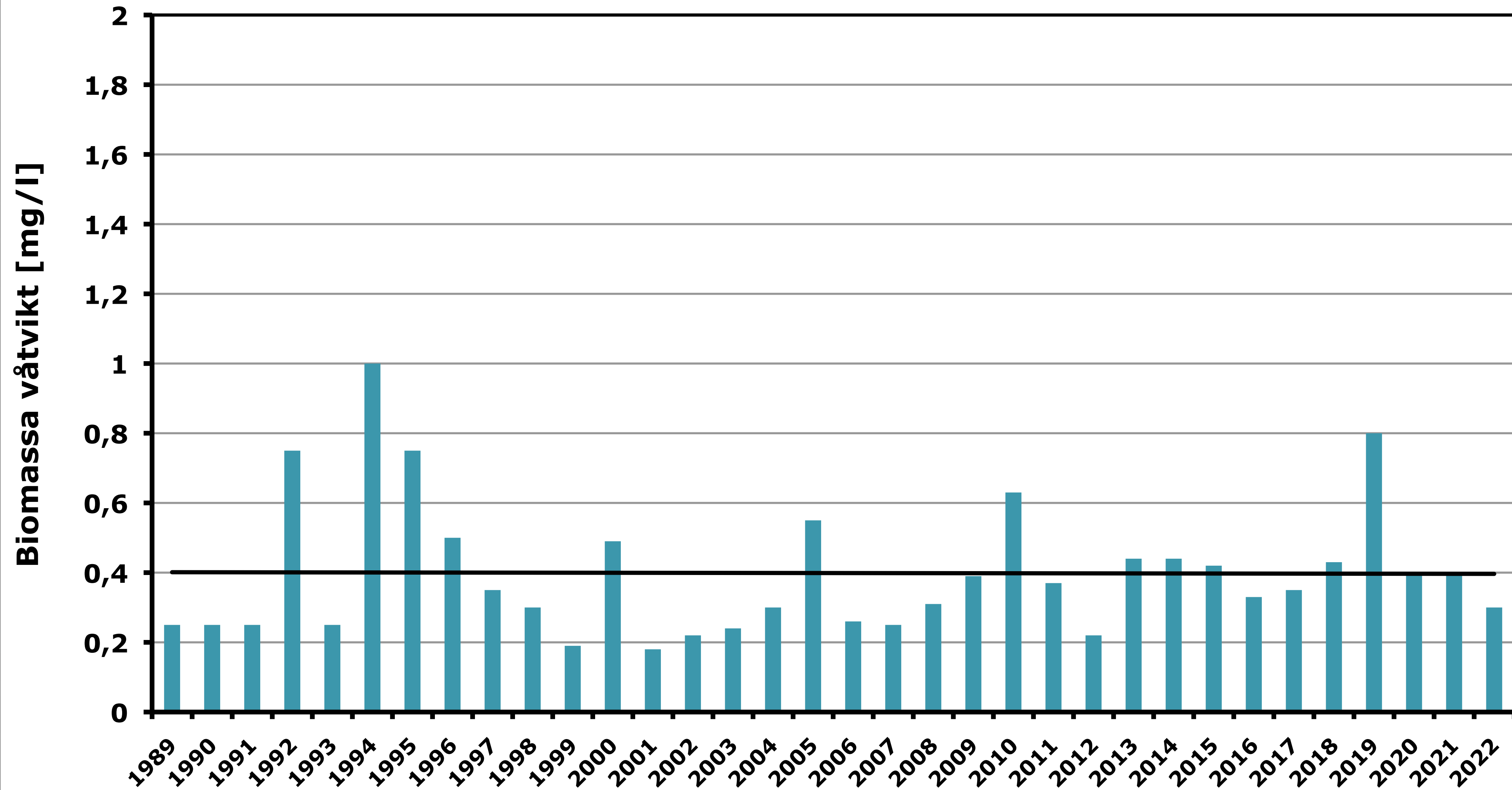
Chlorophyll a, Lake Immeln, 1978-2022

Klorofyll a, Immeln, 1979-2022



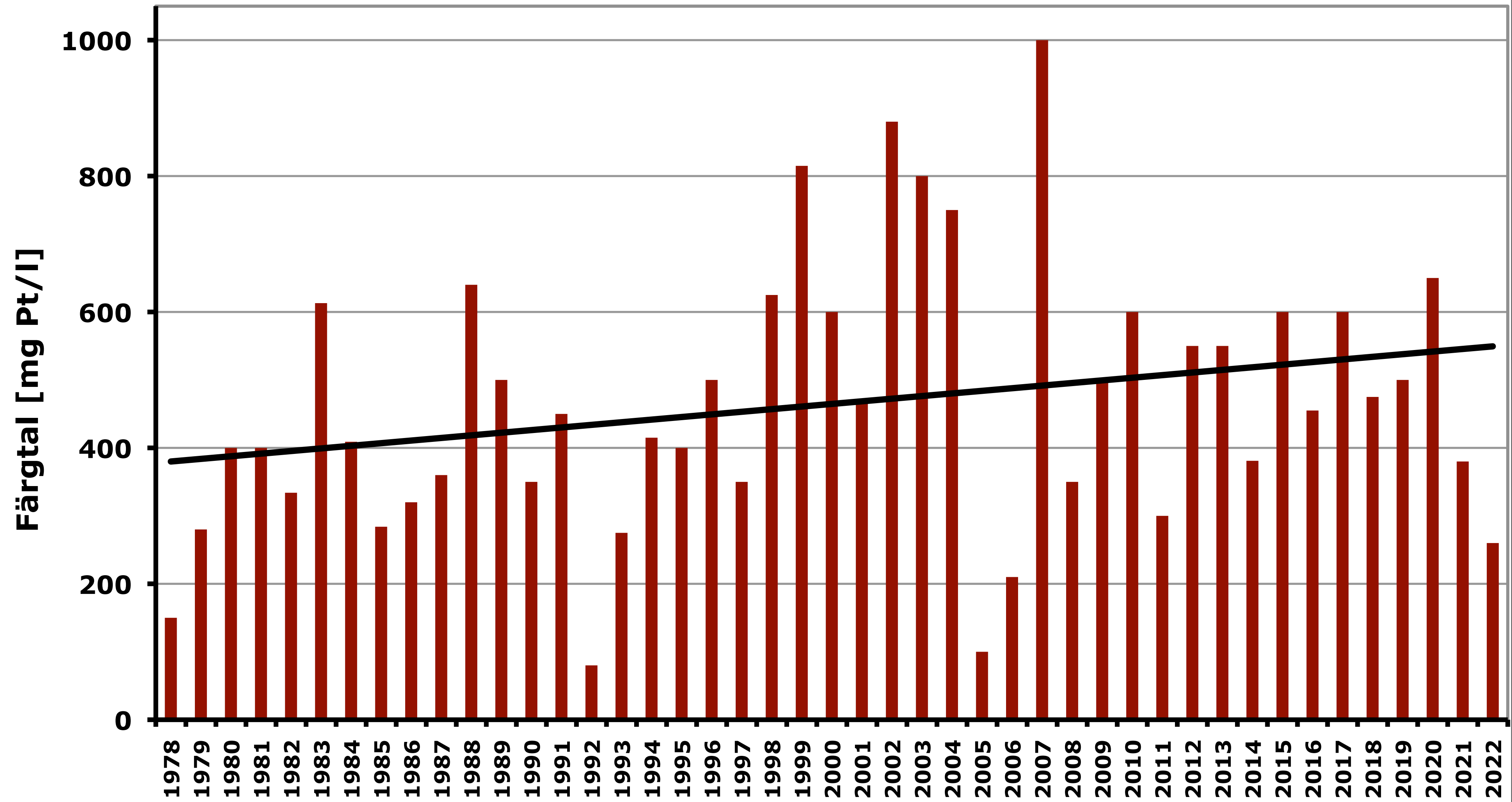
Biomass of phytoplankton, Lake Immeln, 1989-2022

Biomassa av växtplankton, 1989 - 2022

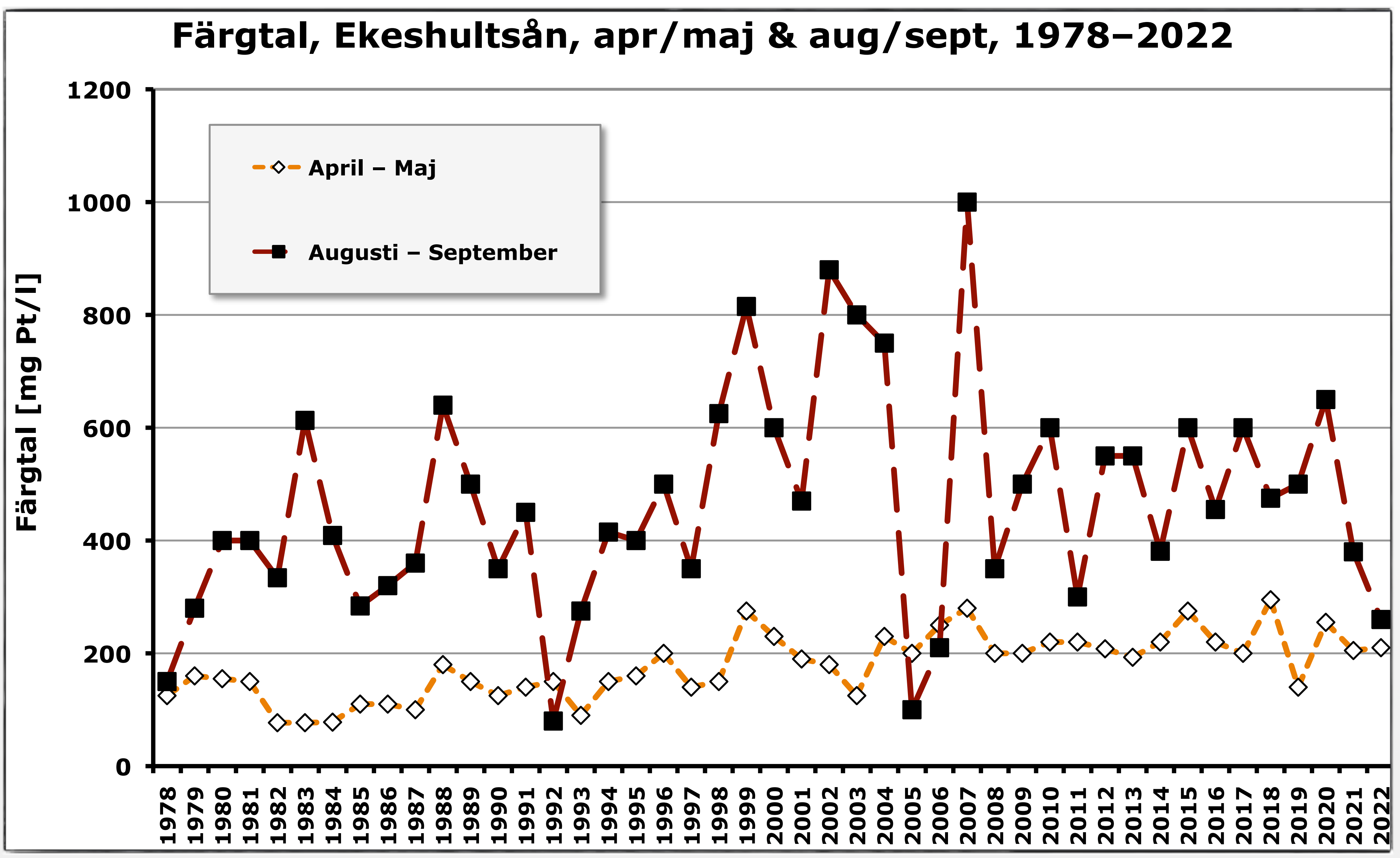


Water colour, River Ekeshultsån, 1978-2022

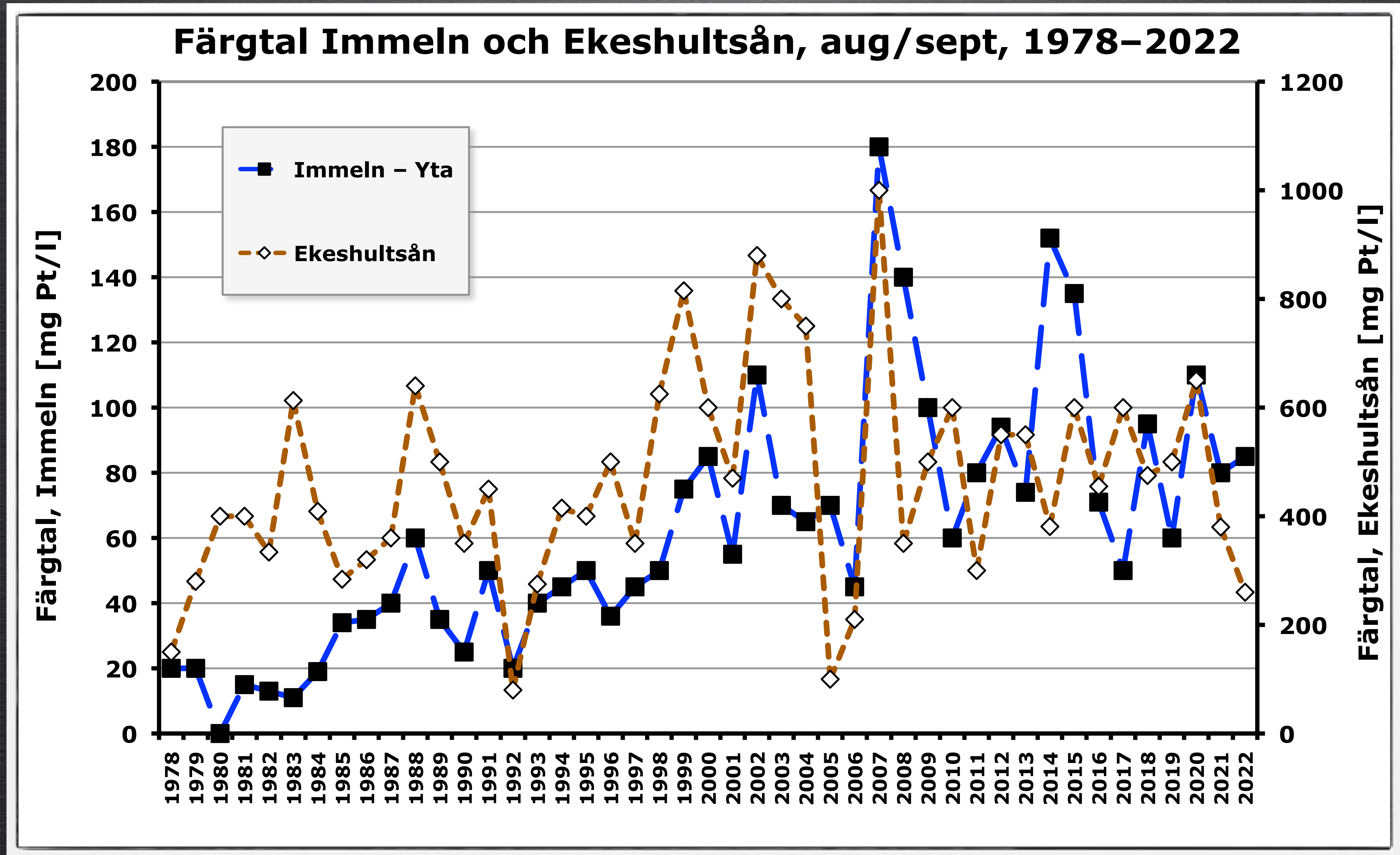
Färgtal, Ekeshultsån, aug/sept, 1978-2022



River Ekeshultsån, Spring and Late Summer, 1978-2022

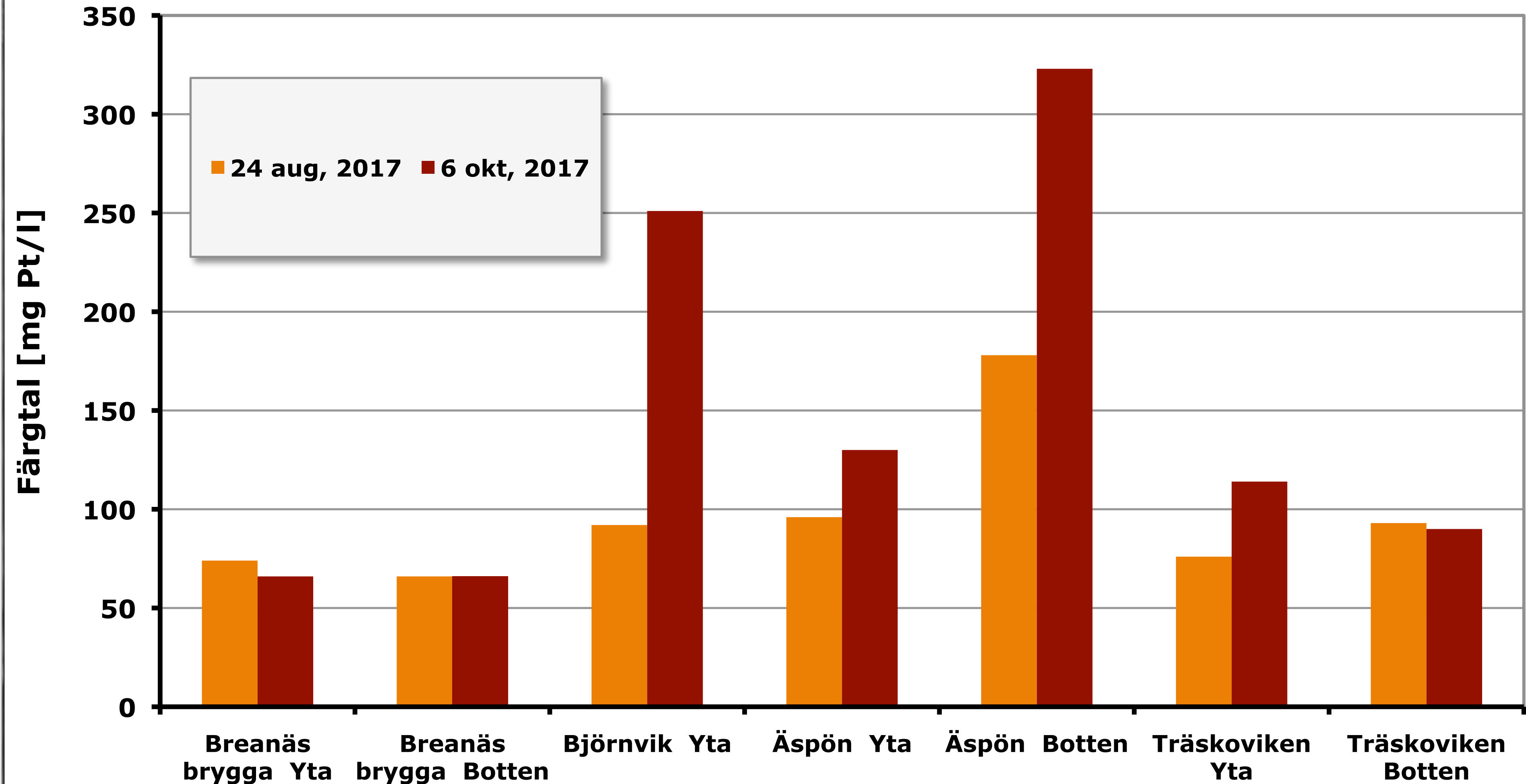


Lake Immeln and River Ekeshultsån, Spring and Late Summer, 1978-2022



Lake Immeln, Water colour, Four different sites, 2017

Färgtal, Immeln, Fyra olika platser, 2017



Sampling at a shallow part of Lake Immeln Taking up sediment cores



BJÖRKHULT, IMMELN 2023-07-21

Photo: Heléne Annadotter

Sampling brown water at River Ekeshultsån



BJÖRKHULT, IMMELN 2023-07-21

Photo: Johan Forssblad

Water was sampled from Lake Immeln and from River Ekeshultsån



Immeln yta

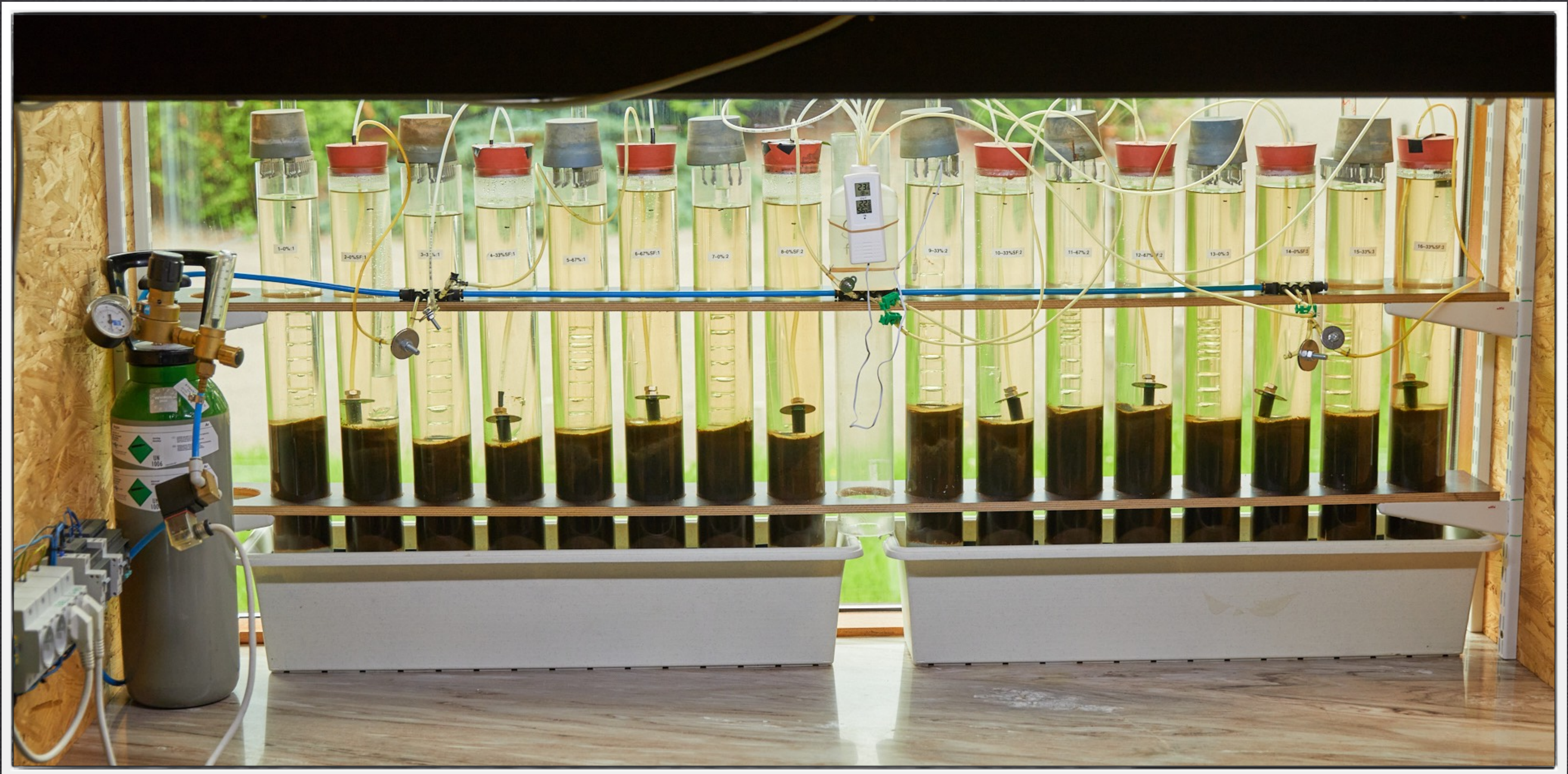


Immeln botten



Ekeshultsån

The experimental set-up



REGITO LAB SETUP

Photo: Johan Forssblad

Half of the columns had water only from Lake Immeln



Photo: Johan Forssblad

The other got additions of brown water from River Ekeshultsån



Photo: Johan Forssblad

Half of the columns got anoxic conditions by bubbling with argon



Photo: Johan Forssblad

Woronichinia naegeliana

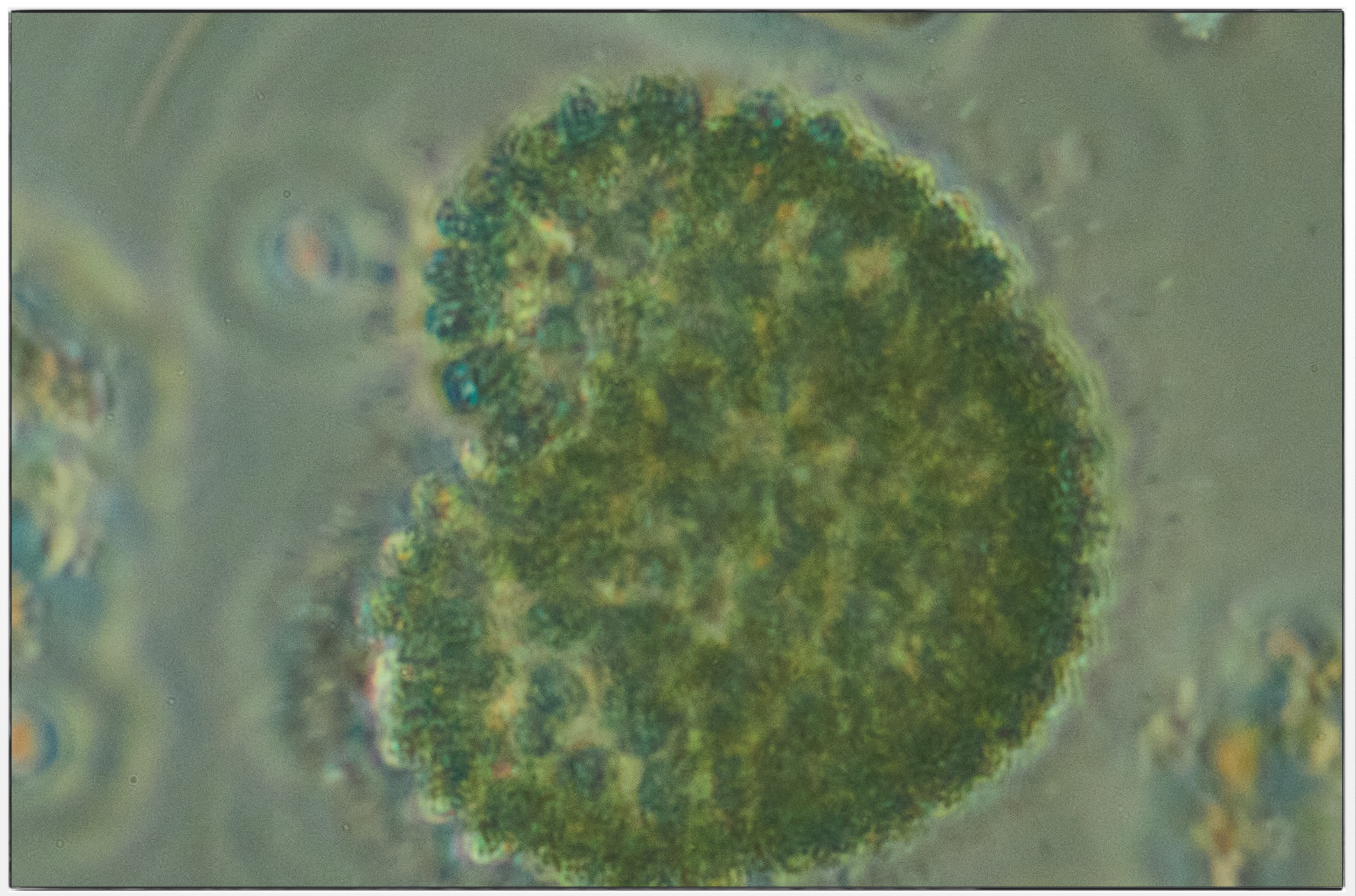


Photo: Johan Forssblad

Microcystis wesenbergii

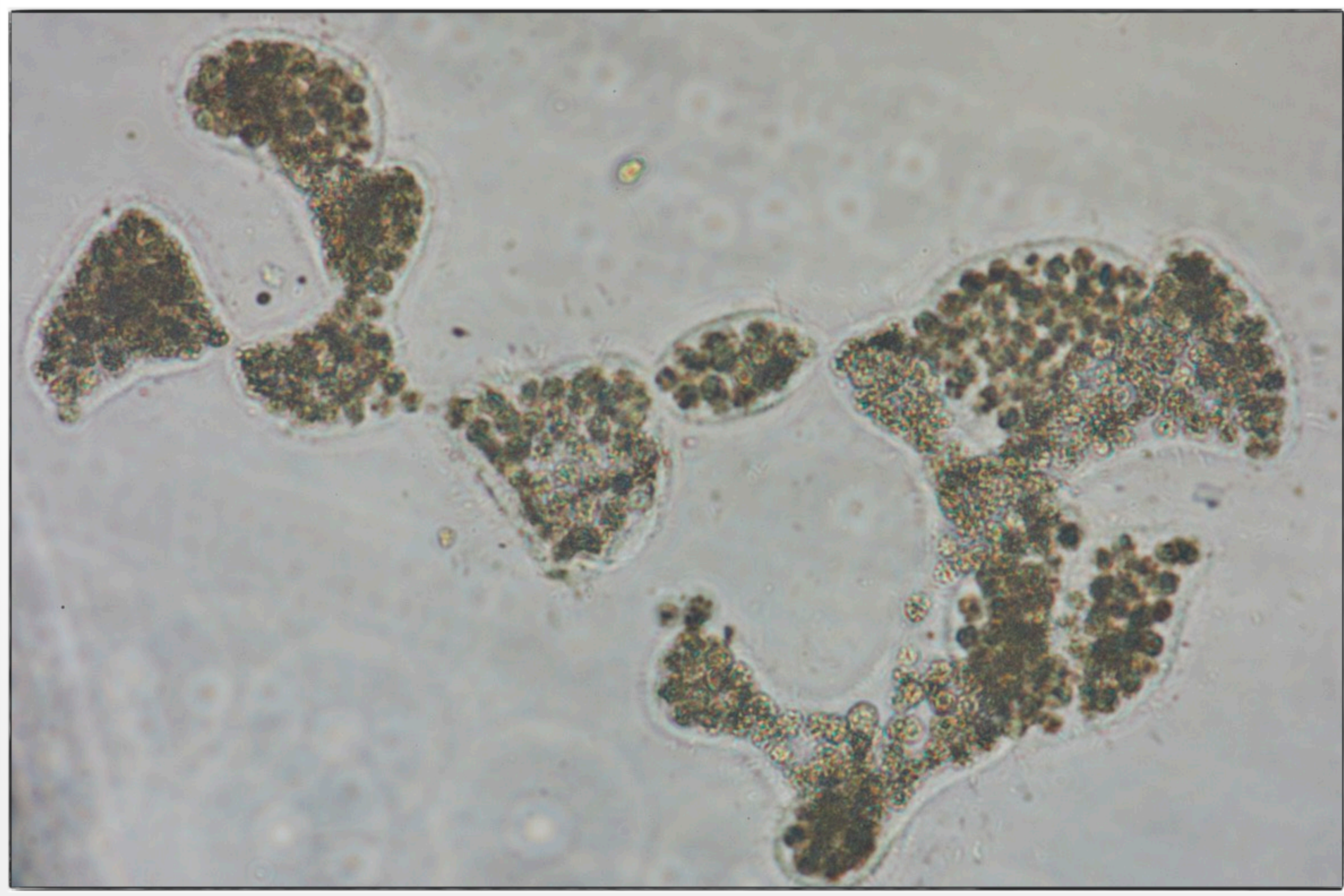


Photo: Johan Forssblad

Aulacoseira granulata

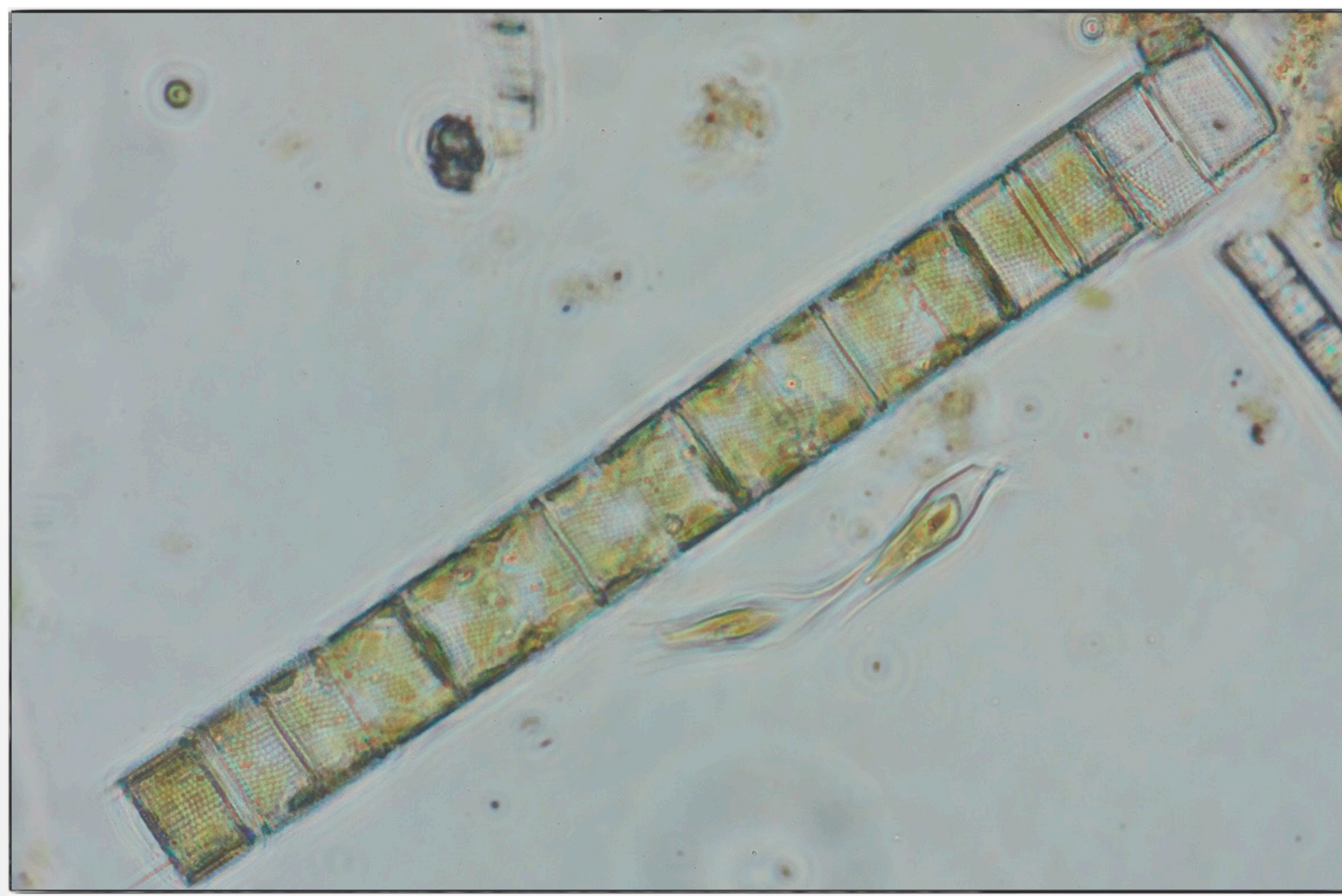
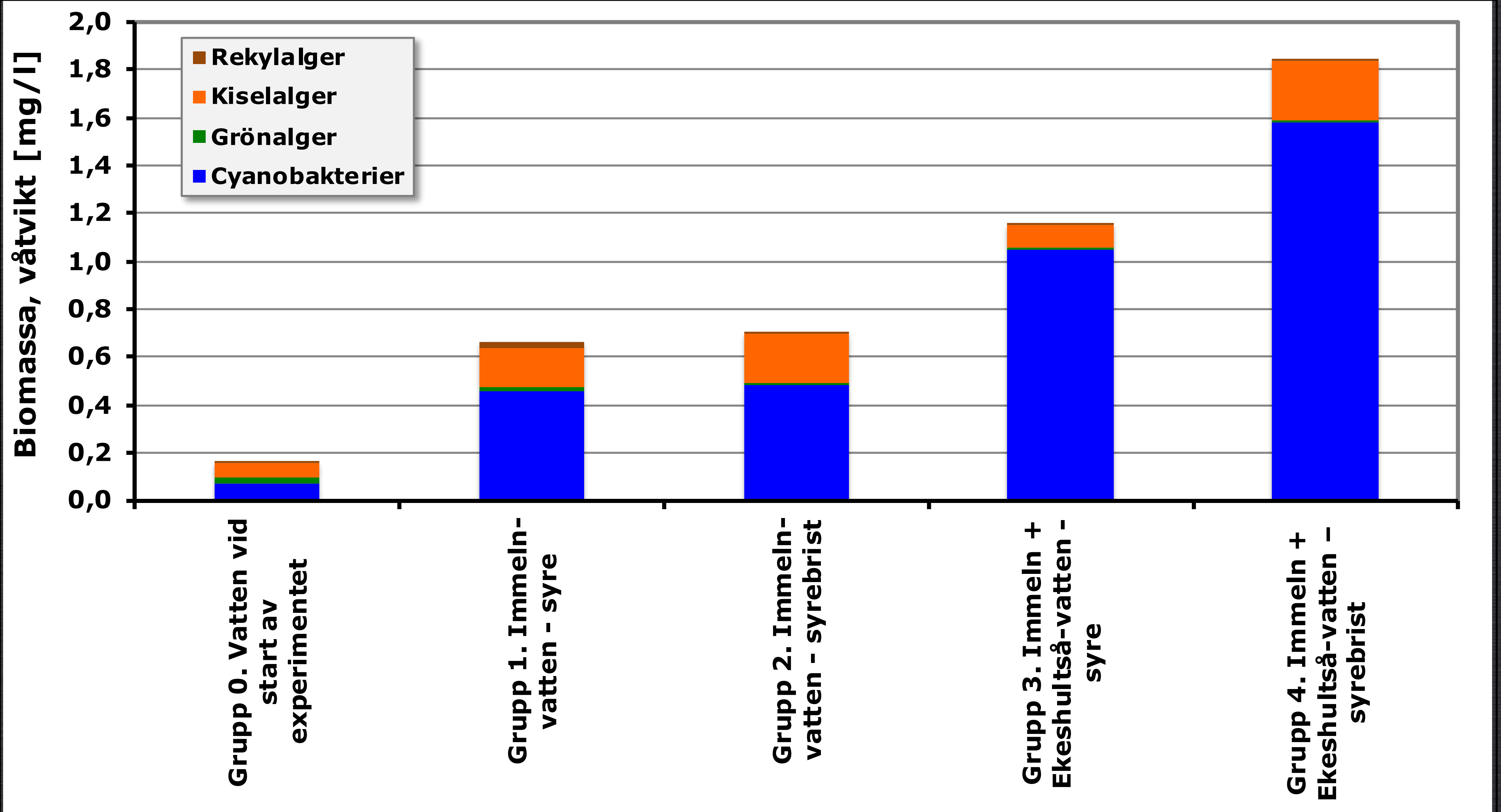
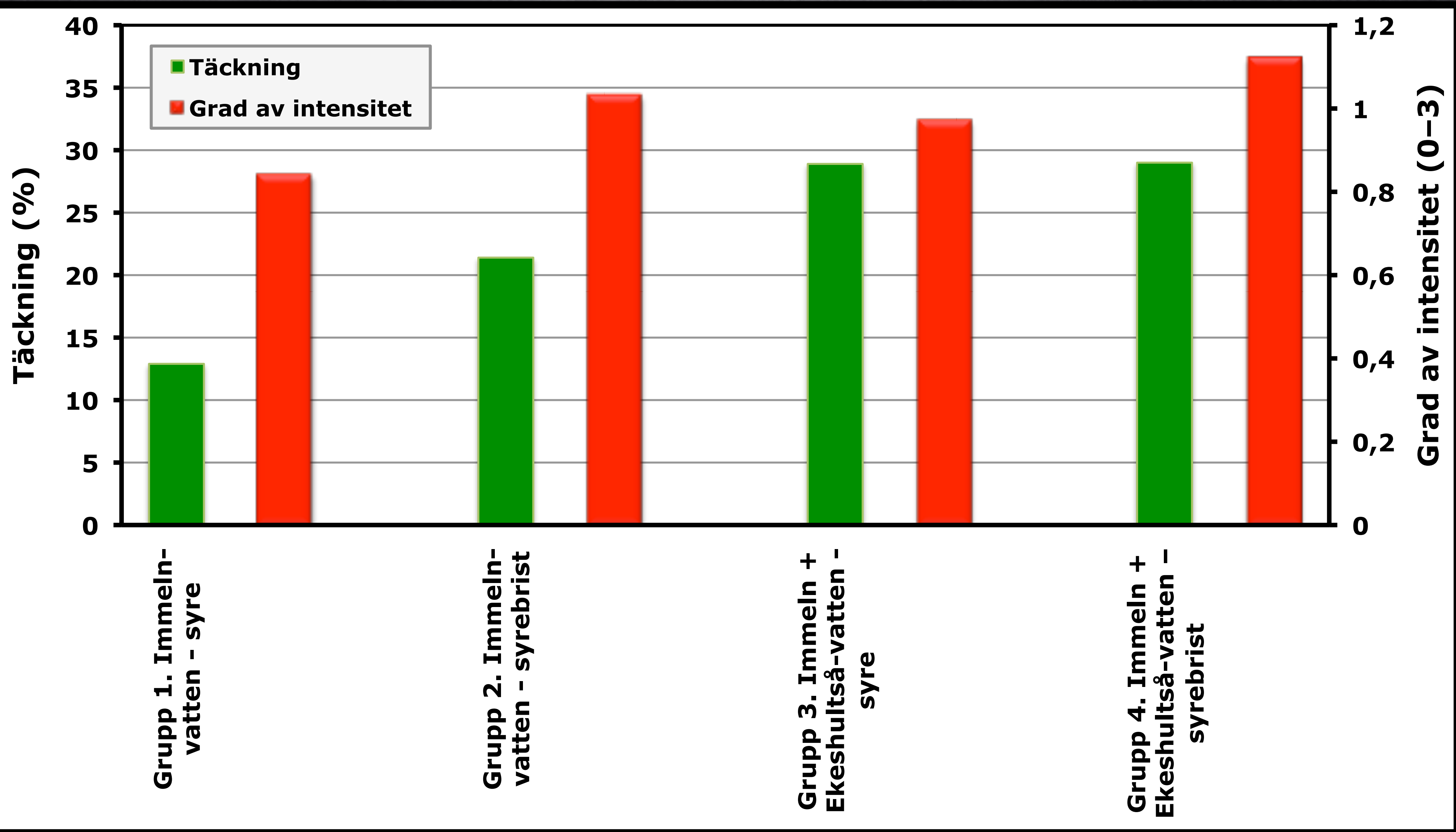


Photo: Johan Forssblad

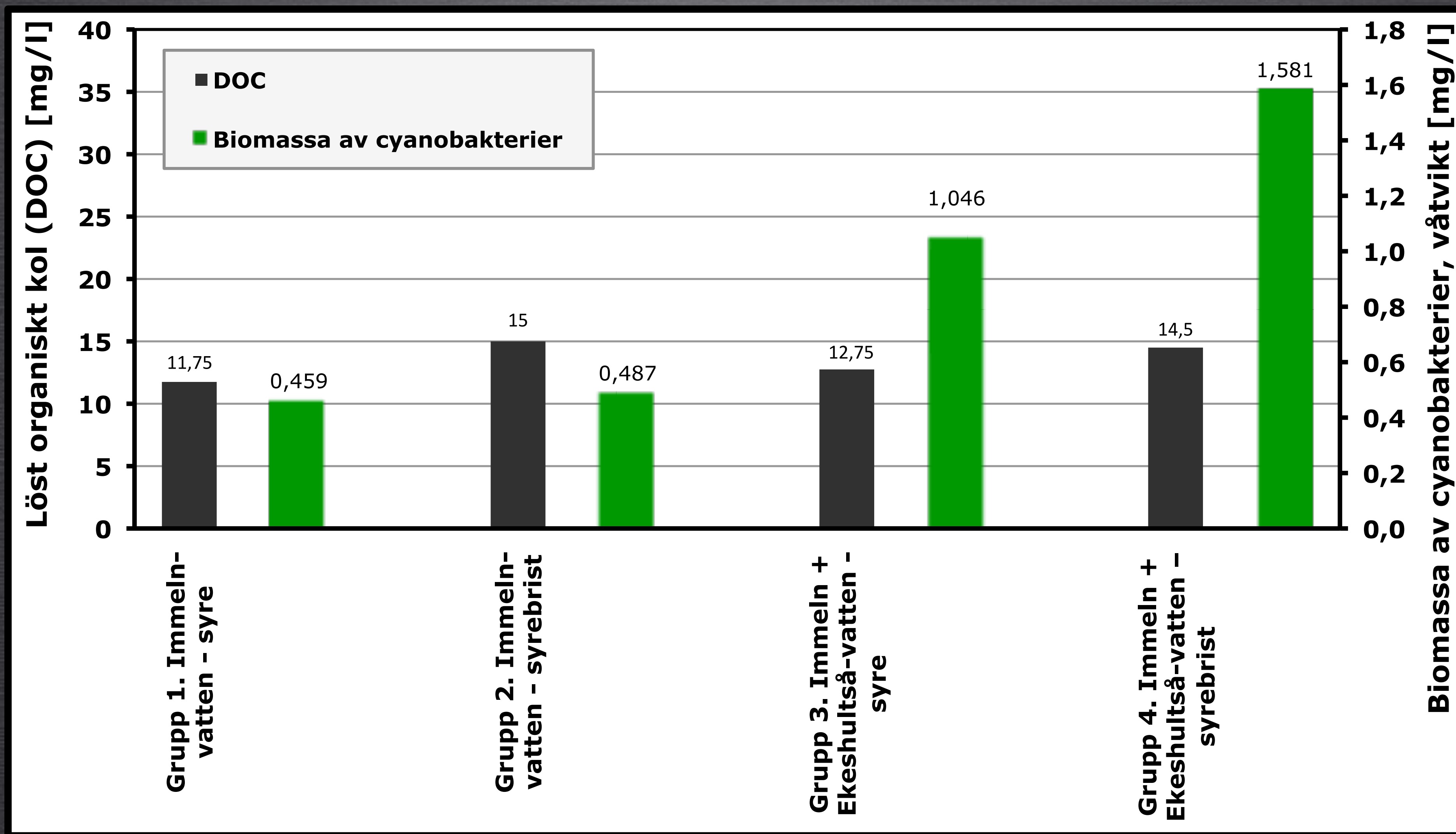
Biomass of phytoplankton in the different treatments



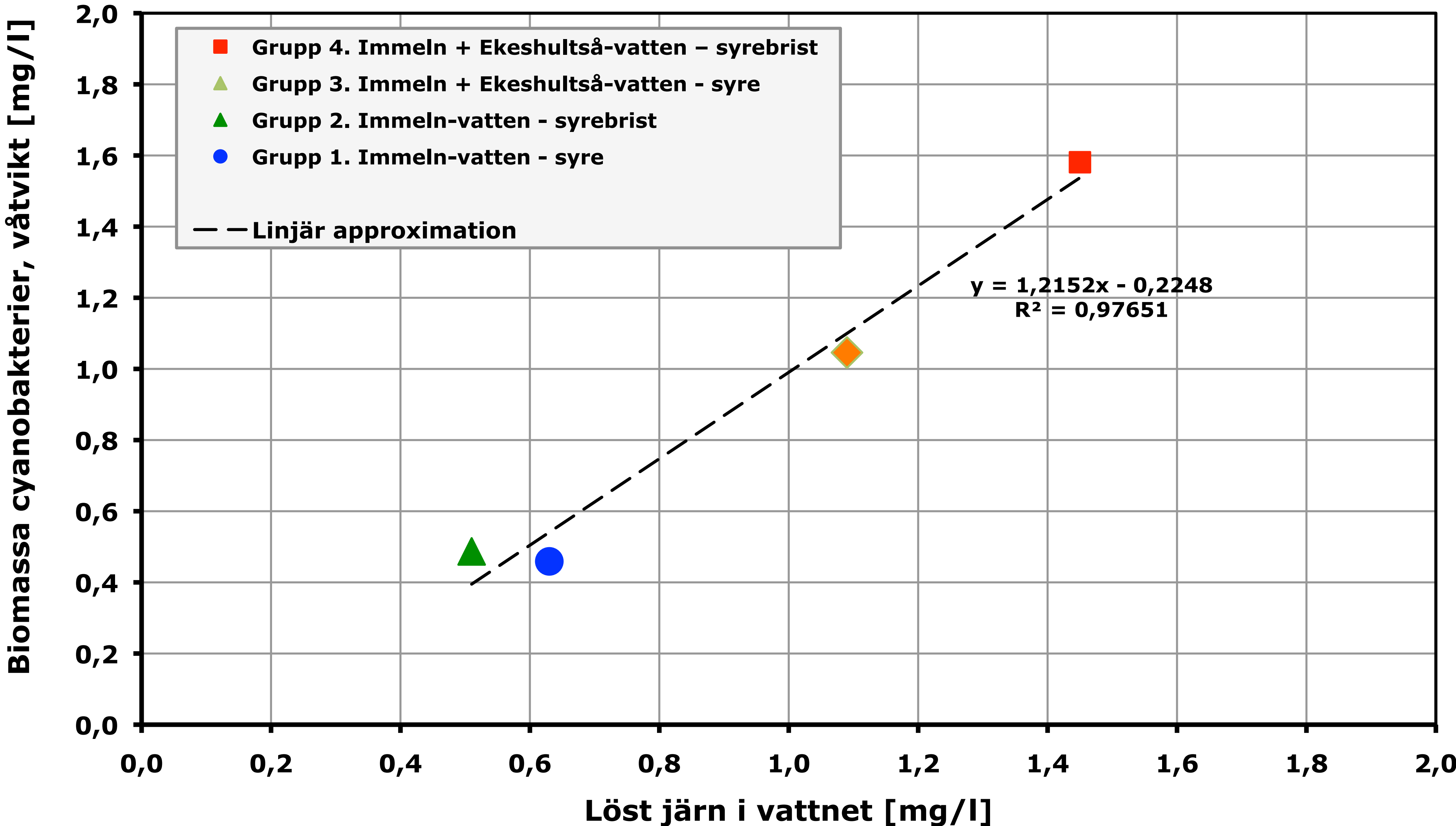
Coverage of benthic micro algae and level of intensity of the colour



The level of DOC versus biomass of cyanobacteria



The level of dissolved iron versus biomass of cyanobacteria



Dolichospermum curvum

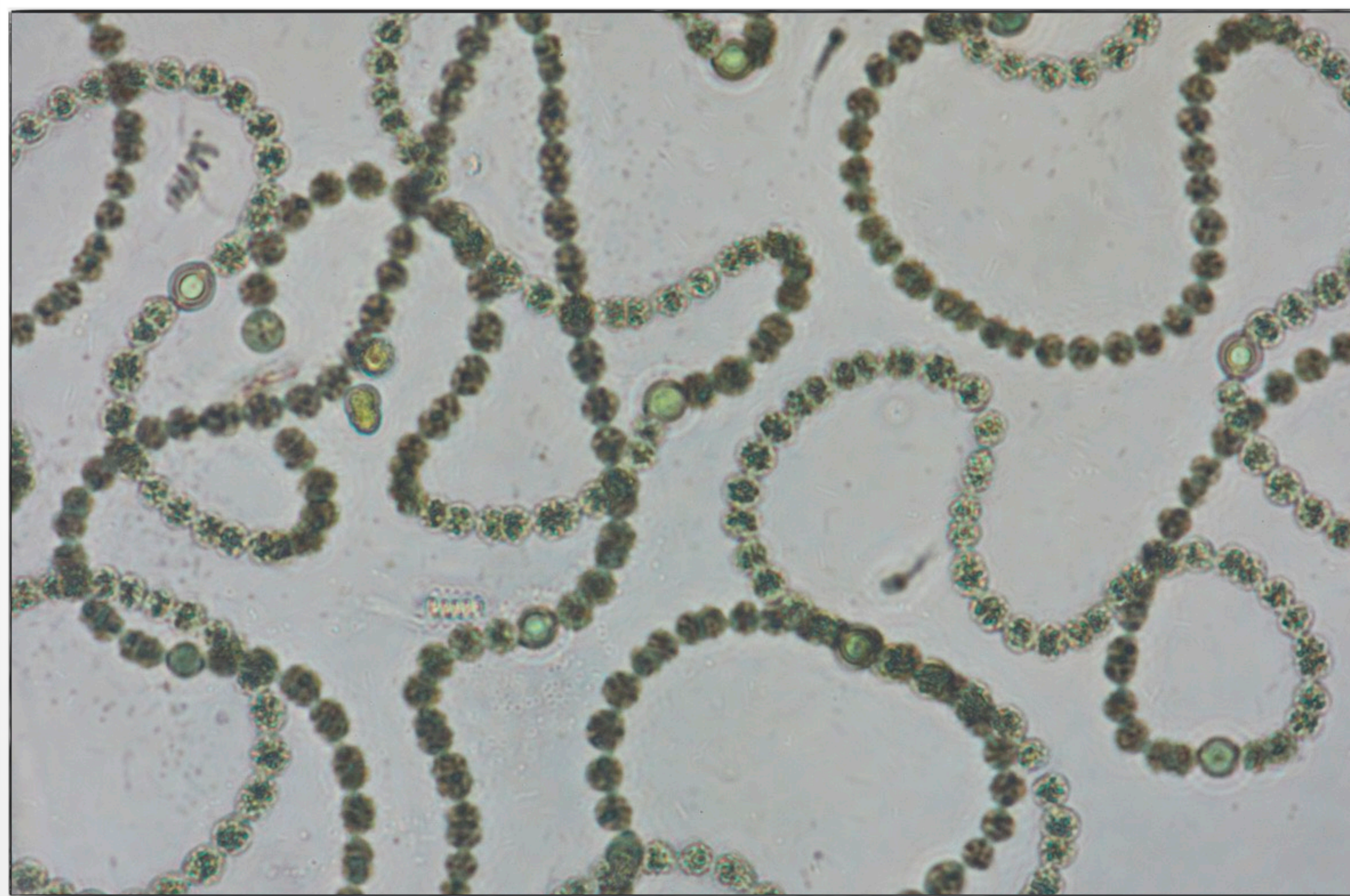


Photo: Johan Forssblad

Microcystis botrys

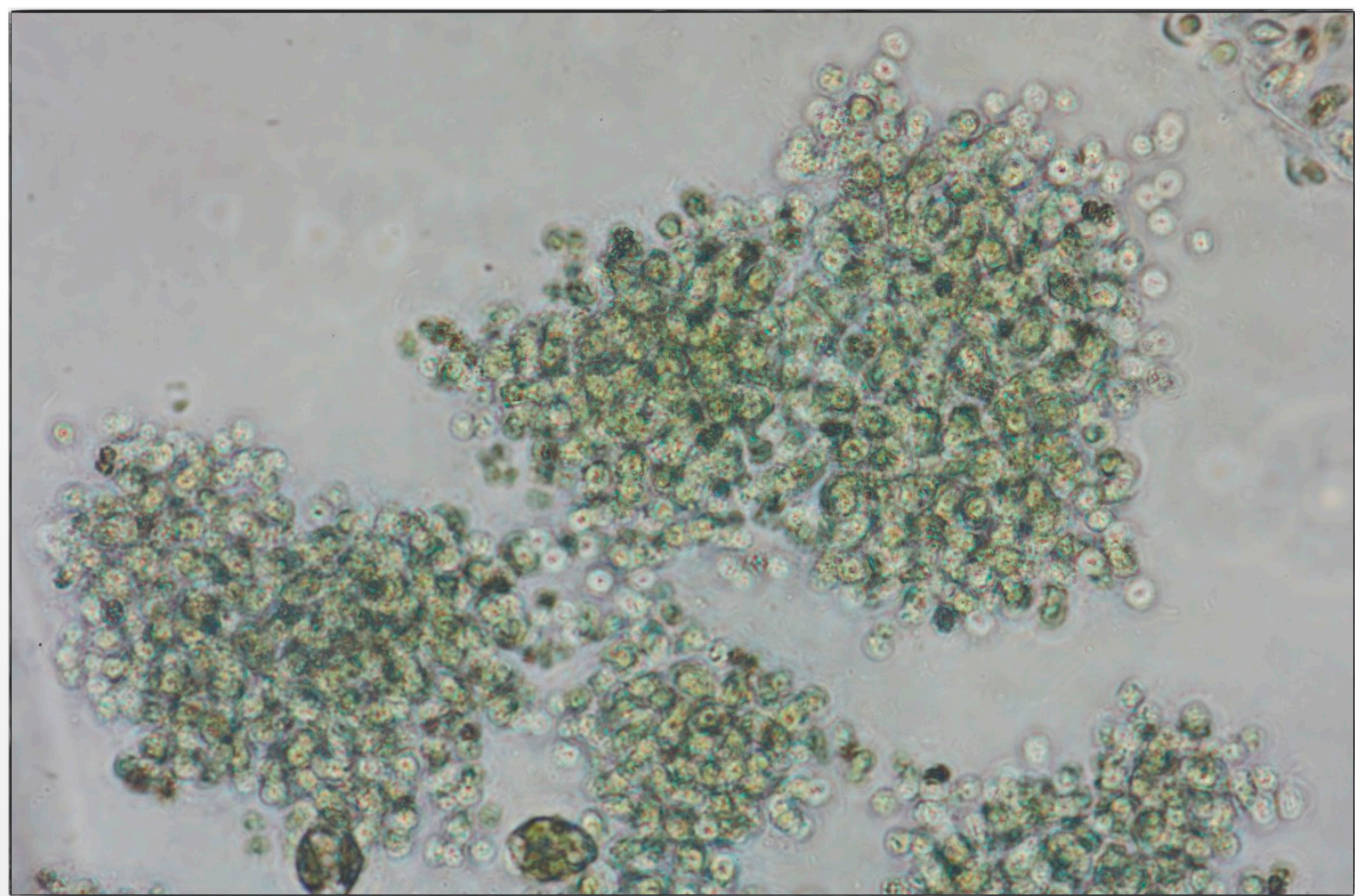


Photo: Johan Forssblad

A bloom in Lake Immeln September 26, 2023

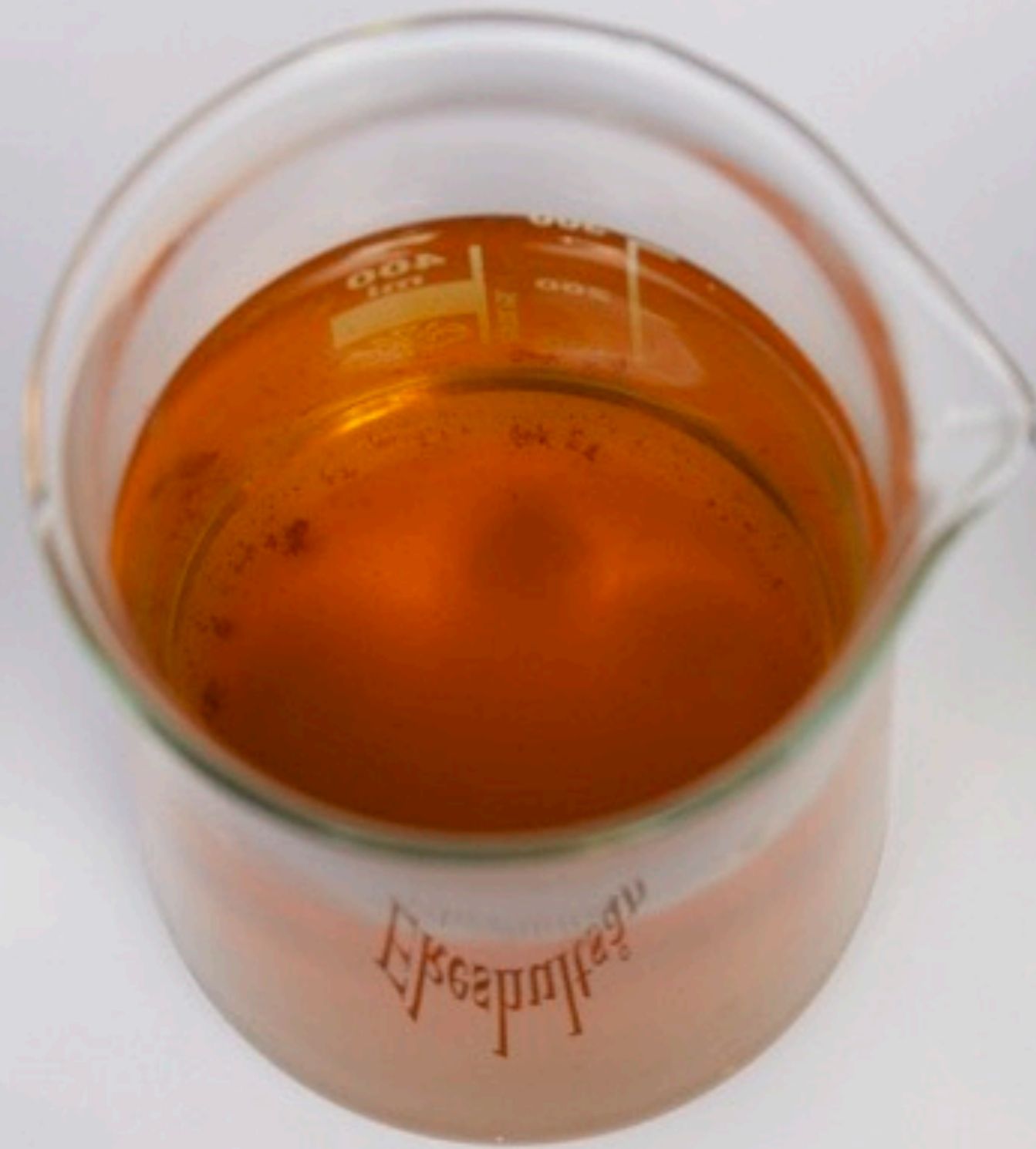


Photo: Johan Forssblad

What is happening when brown water flow into Lake Immeln?



Immeln
djuphålan



Ekeströmsån



Björkhult
stranden

Thank you for your attention!



Photo: Johan Forssblad