Norra Bergundasjön

Original images: ESA Copernicus Sentinel Data, SYKE

Short facts

Lat: 56.86807°° - Lon: 14.75712°
- Hypertrophic
- Surface area: 2.2 km^2
- Mean depth: 2.7 m
- Max depth: 5.0 m
- Residence time: 0.25 years
- Main catchment type: Urban, woodland
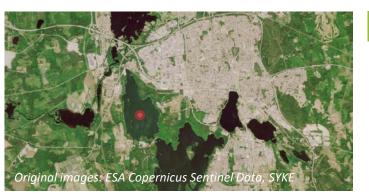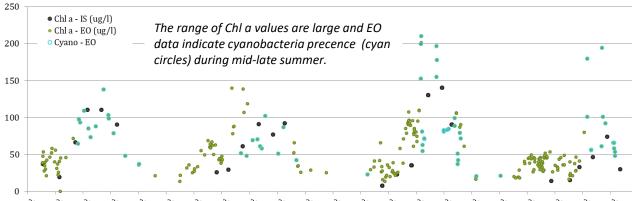
About

Norra Bergundasjön is a hypertrophic suburban lake rich in birds and fish. The lake was originally oligotrophic but a lowering of the lake level in the early 19th century contributed to eutrophication together with discharge of untreated sewage water from Växjö town. The lake has since suffered problems caused by excessive nutrient loads resulting in oxygen depletion and massive algal blooms. Storm water runoff also added pollutants to the lake. Several remedial measures have resulted in a decreased nutrient load on the lake, but further improvements is needed to raise the ecological status. Today a substantial part of the total phosphorus load comes from internal loading from the lake sediment.

Whats up?

The local council has since the 1970's worked to improve the water quality of three neighboring lakes in the lake group called "Växjösjöarna". This has reduced the eutrophication of Norra Bergundasjön but the problem with high phosphorus content in the sediments remains. However, aluminium treatment of the sediment beds 2018-19 in two nearby lakes has lowered the phosphorus content with up to 90%. By improving the water quality in the lakes, a positive effect is expected also for the Baltic sea. The work is part of a three-phase strategy consisting of investigations and decision support, development of the remedial strategy and an implementation phase.

The goal of the strategy is to achieve Good ecological and chemical surface water status according to the WFD by 2027 for lake system.

Time series

The range of Chl a values are large and EO data indicate cyanobacteria precence (cyan circles) during mid-late summer.

- Chl a - IS (ug/l)
- Chl a - EO (ug/l)
- Cyano - EO