

Reinstating wetlands and pike spawning grounds on the Stockholm archipelago



What can we do



The Baltic Sea problem is huge so what can a small FLAG/LAG do?

As Susanne Ortmanns, FLAG Manager Stockholmsbygd says

”Restoring and establishing spawning grounds for pike is an efficient way of improving fish stocks at the same time as supporting other objectives such as skills development, fostering collaboration, and increasing tourism”

Around 100 constructed pike wetlands in Sweden. FLAGs see the potential and have contributed to approx 10 pike wetlands

The reason to do it

- **Eutrophication from land and from sea**
- **Hypoxic bottoms**
- **Lack of fish due to above and overfishing**
- **Few coastal fishermen**
- **Tourism**

The result of doing something connected to these problems is local engagement, job creation, less eutrophication, more predator fish and more oxygen



The Baltic Sea is unbalanced

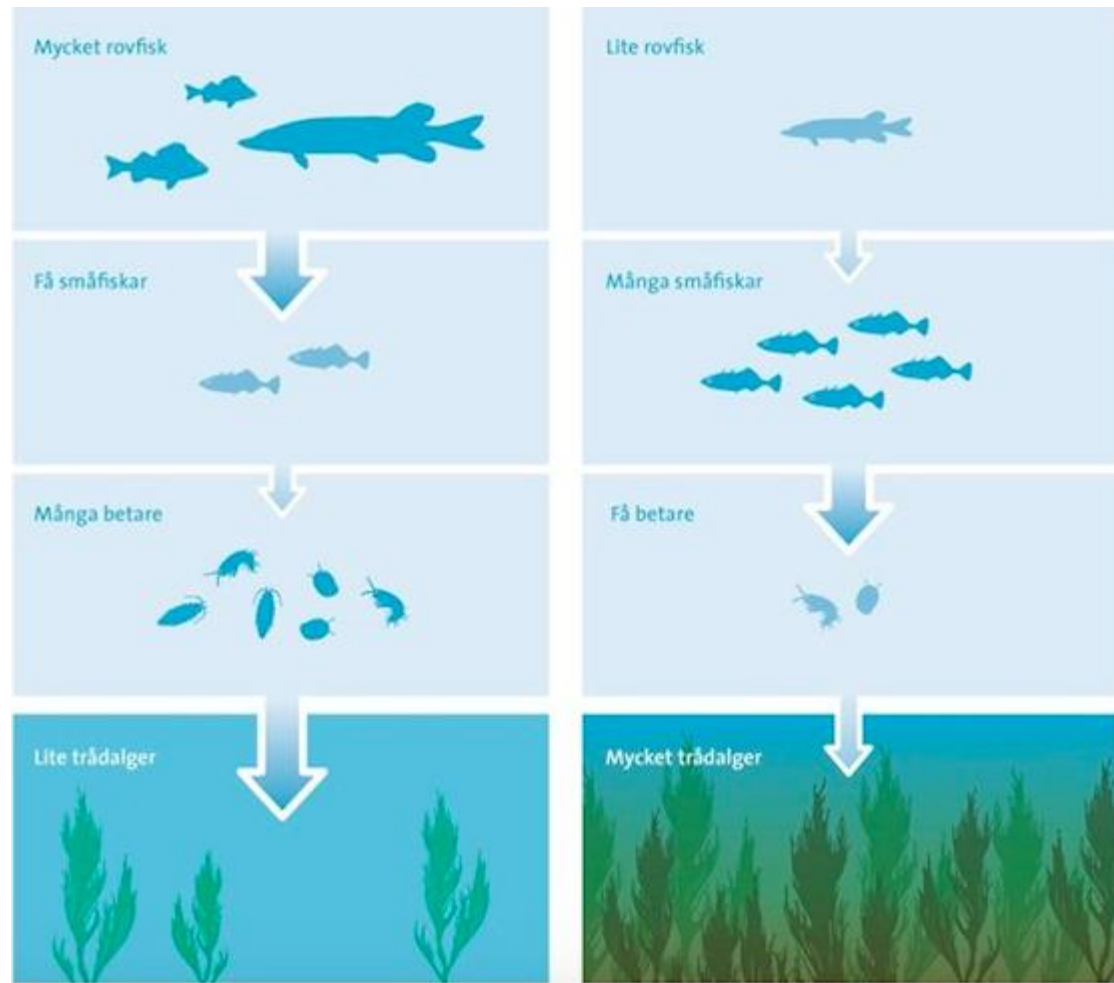
What creates the problem in detail?



- Untreated waste water from private and municipality plants ... 160 years ago urbanisation started
- Fertilizers
- Cod disappeared in the late 90th which started an ecosystem problem
- Large increase of herring but today a large decrease
- Sticklebacks eats pike spawn
- Zooplankton decreased and phytoplankton increased
- Dead algaeas on bottom consumes oxygen
- Internal load
- Relatively large amount of seal and cormorant



The relation between predator fish, white fish, zooplankton and phytoplankton – please next page



Finally what can the FLAG projects create and how

Identify places for improvement



Finally what can the FLAG projects create and how

Drawings, procurement construction



Estimated cost per hectar in average
25000 – 30000 €



- Measurement
- Follow the nature
- Plan for the users (bird and fish)



Finally

Agreements with authorities, landowners and financiers

- Nature reserve areas, Natura2000, Protected coast line
- Private or municipality owners
- What's in it for the stakeholders?
 - EU, MA, County Admin Board, Regional board, Municipality, Private money and tourism companies



Pike wetland is in place and the results are

- Reduction of P & N
- Reproduction area for fish and birds
- Farming vegetables
- Tourism

So now it's time to manage/operate the area.
Use the resources, be creative and enjoy your contribution thanks to the FLAG and other financiers

Thank you

**Like to discuss this
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