

Research to support an ecosystem-based management of the European seas

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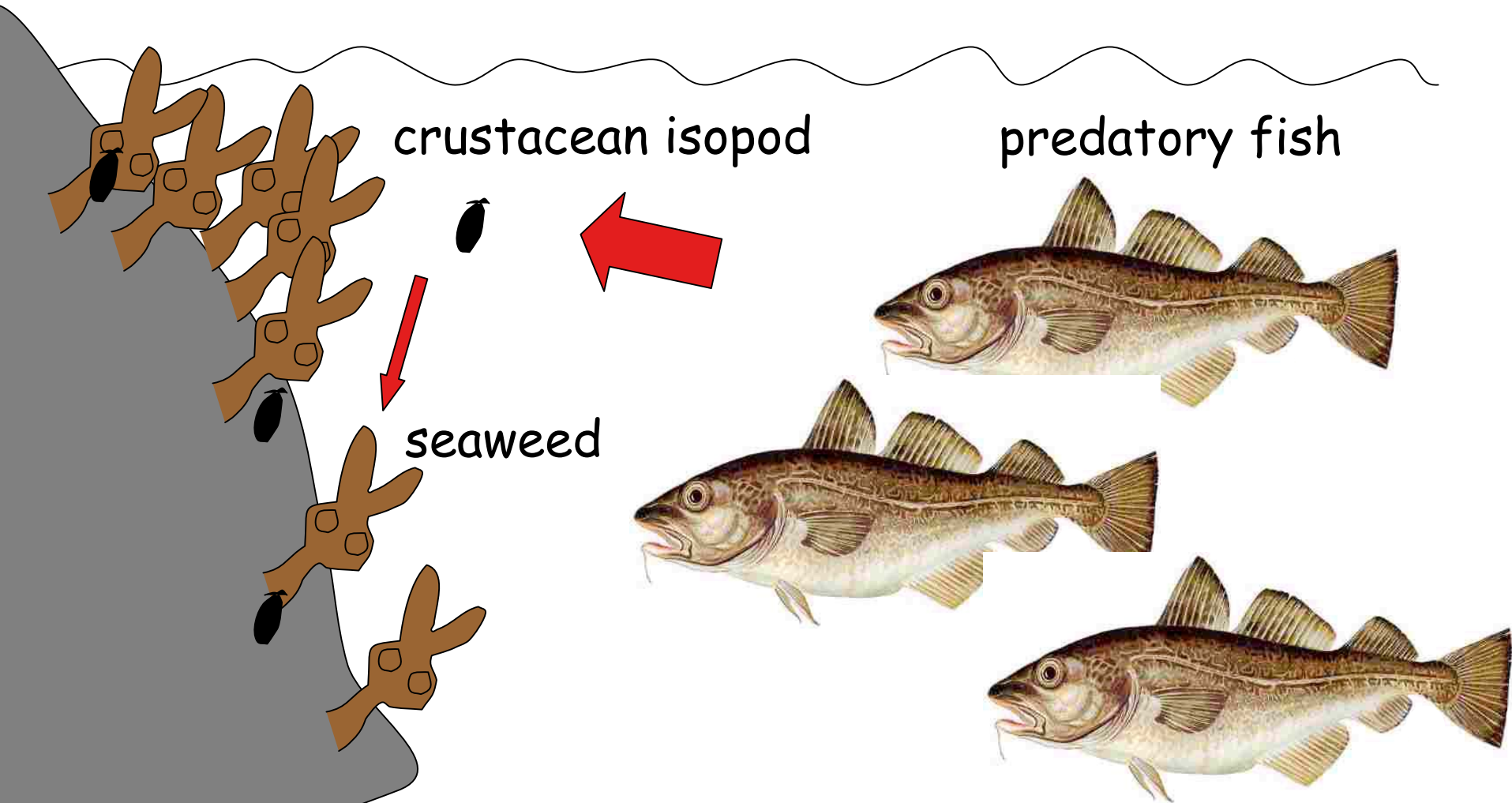
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Yet no time for exotic research - basic problems remain to be solved

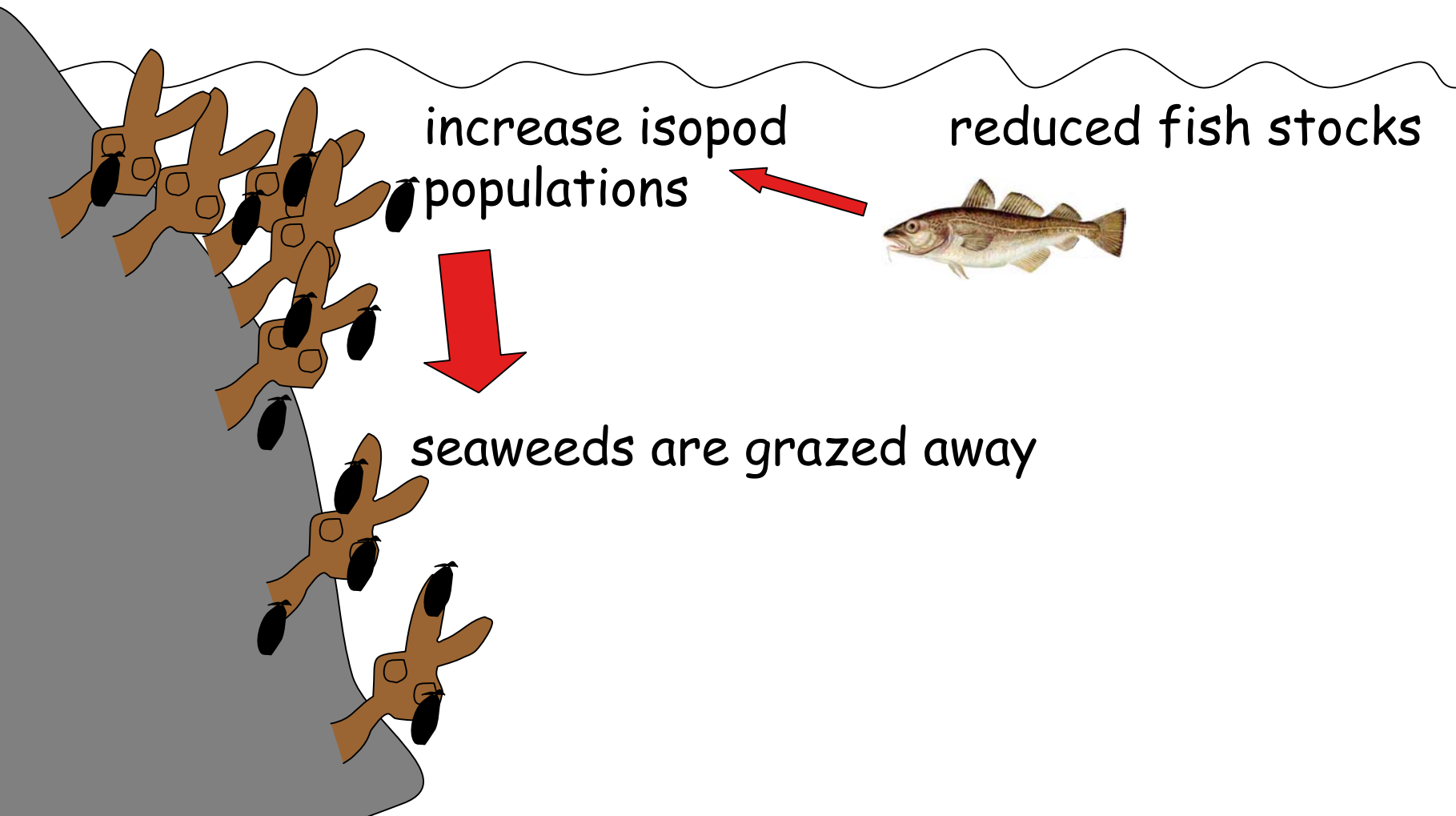
- Fish as a component of marine ecosystems
- The role of zonation ("MPAs")
- Reducing eutrophication
- Effects of toxins
- Long-term (genetic) effects of management/restoration



Fish is more than food...

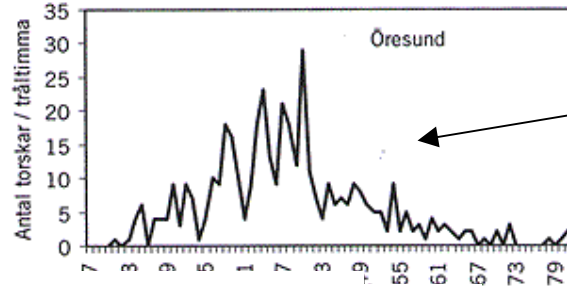
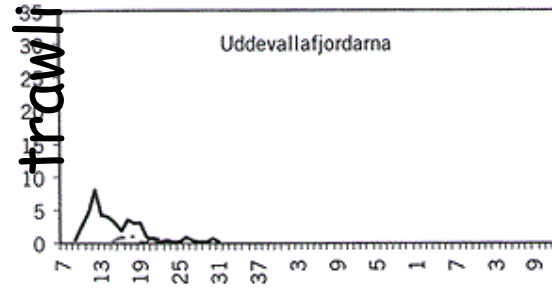
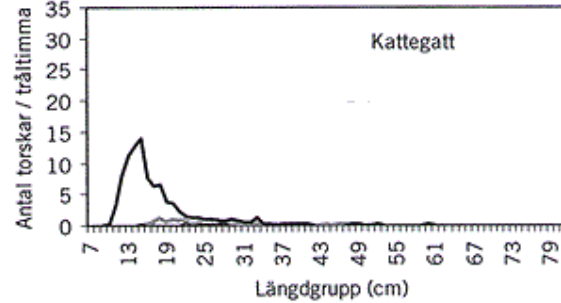
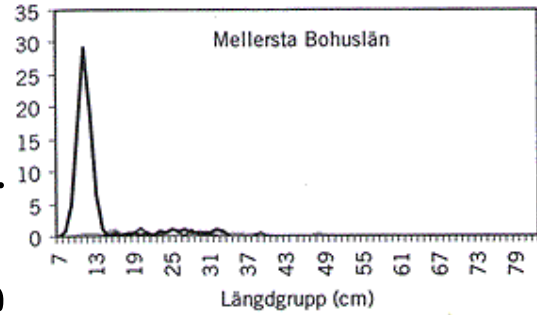
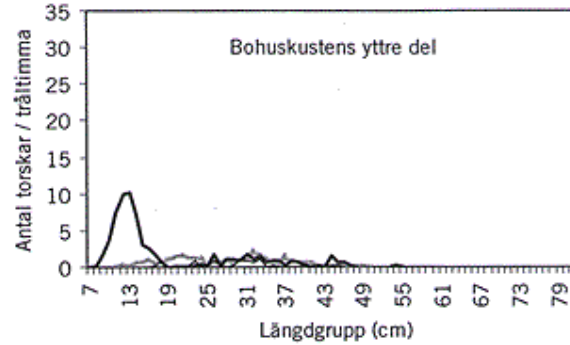
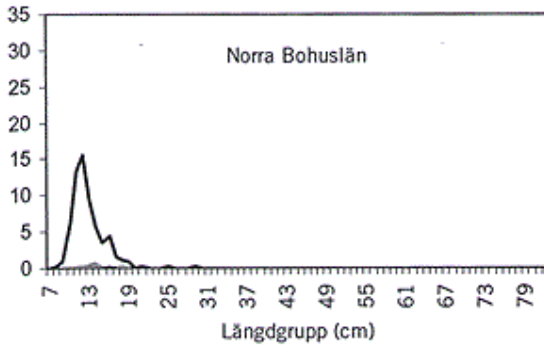


...fish is part of the ecosystem



Effects of zonation /MPAs

Cods caught per hour of trawling



Trawled areas

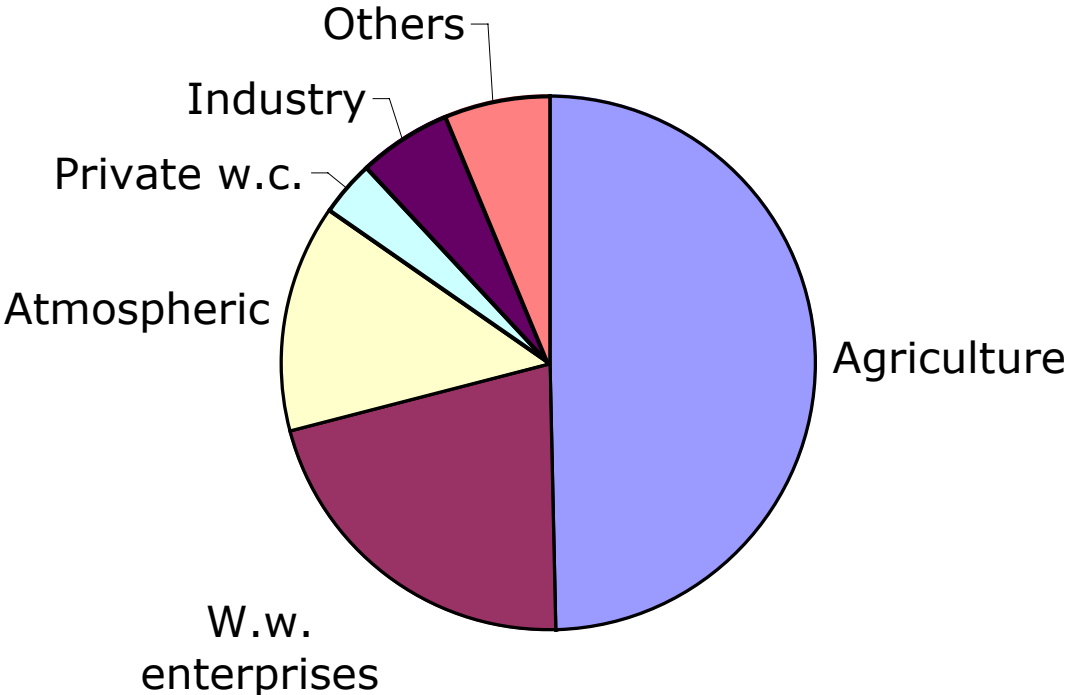
No trawl zone

Cod size groups (cm)

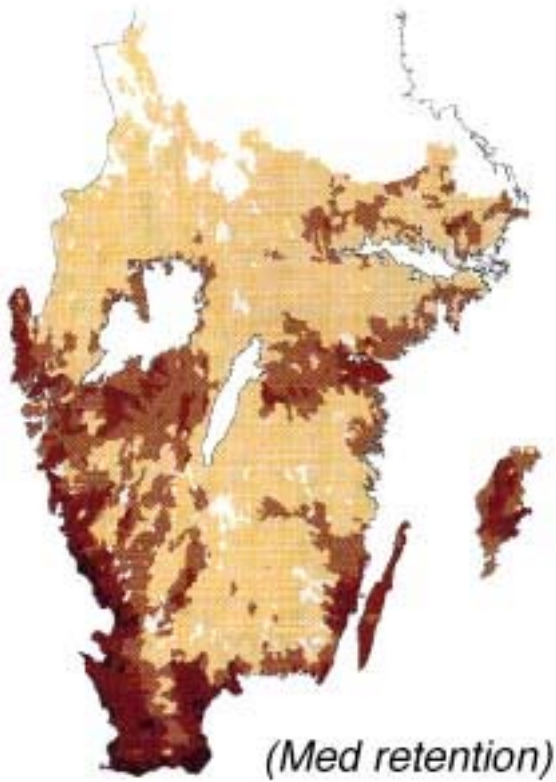
Eutrofication

- reduce fish recruitment
- negative effects of tourism
- increase toxic blooms

Release of nitrogen from coastal seas

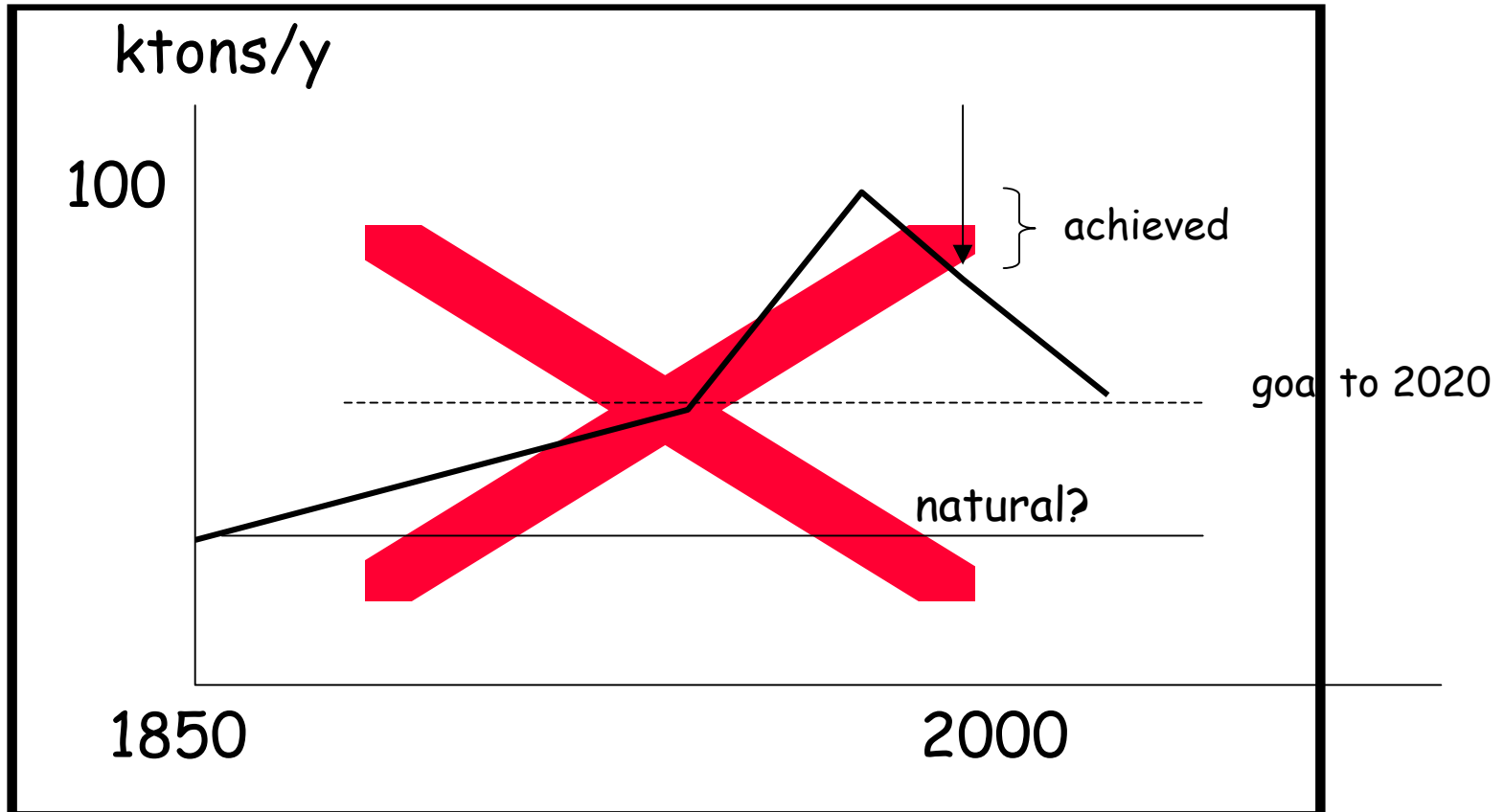


Source: Sw. Sea Commission



Source: Sw. Environmental Protection Agency

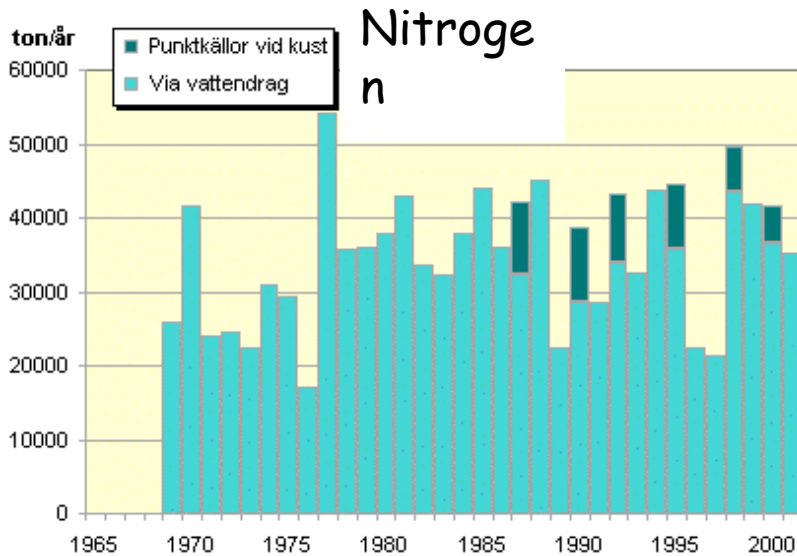
Trend of anthropogenic release of nitrogen (Sweden)



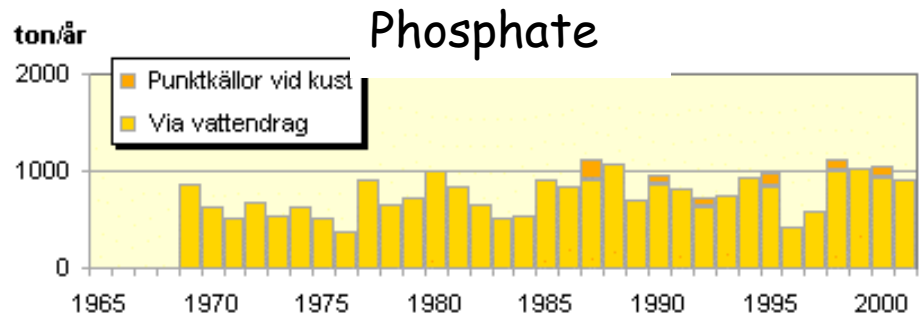
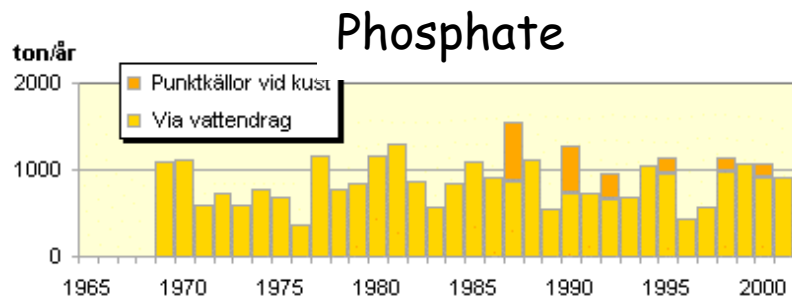
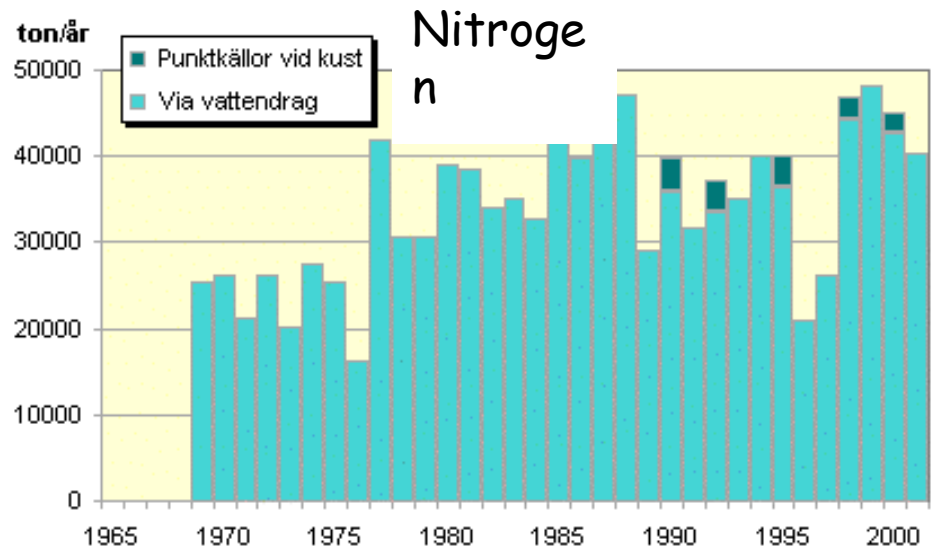
Actions taken seems successful...

...but we cannot measure positive effects!

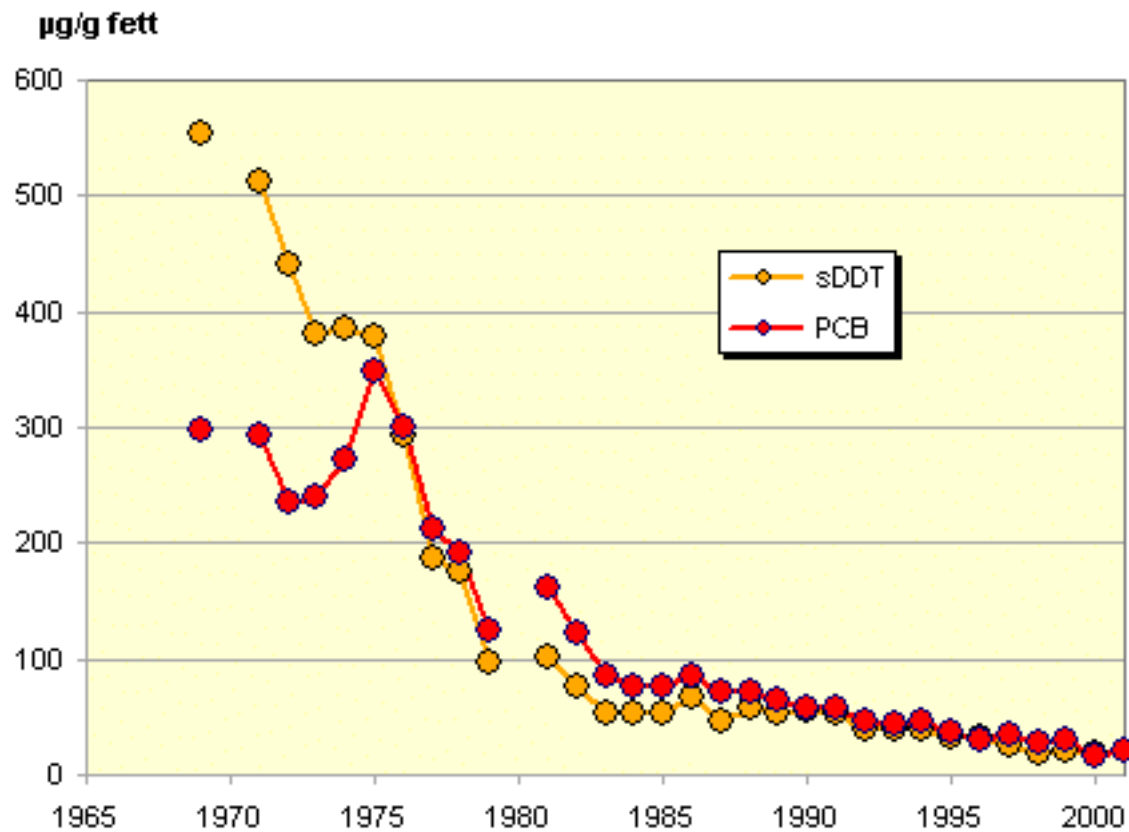
Skagerrak & Kattegat



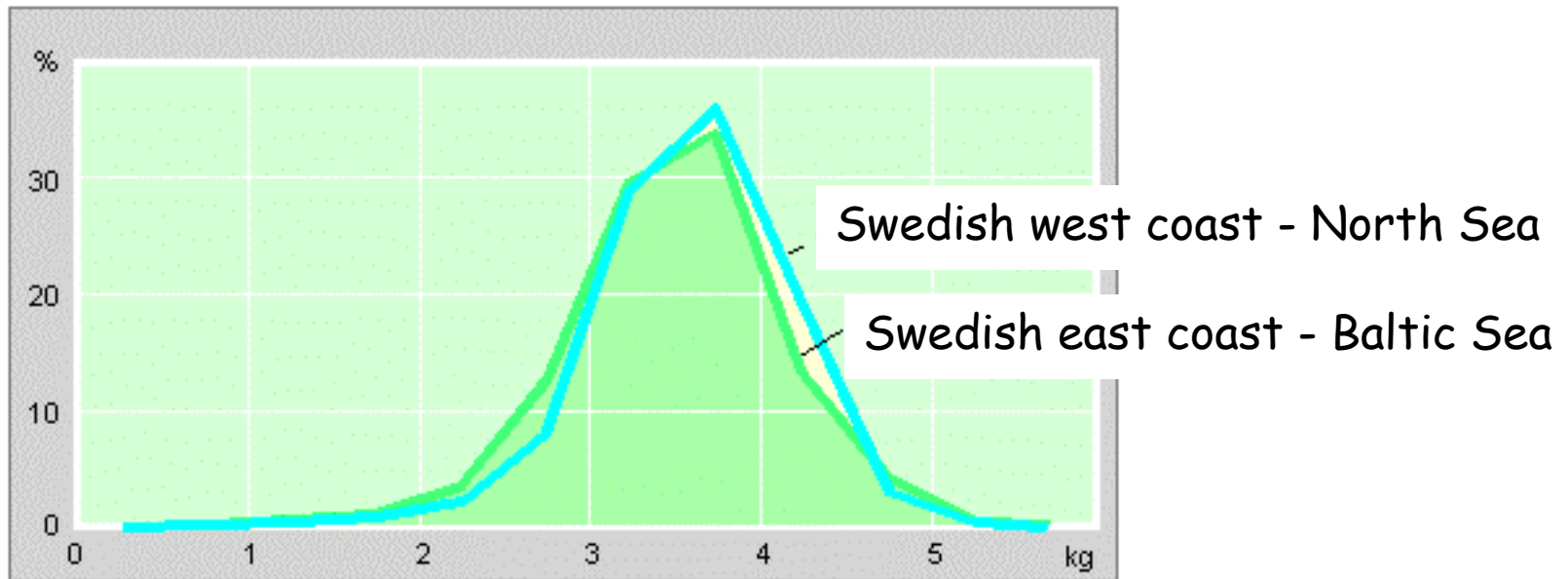
The Baltic Proper



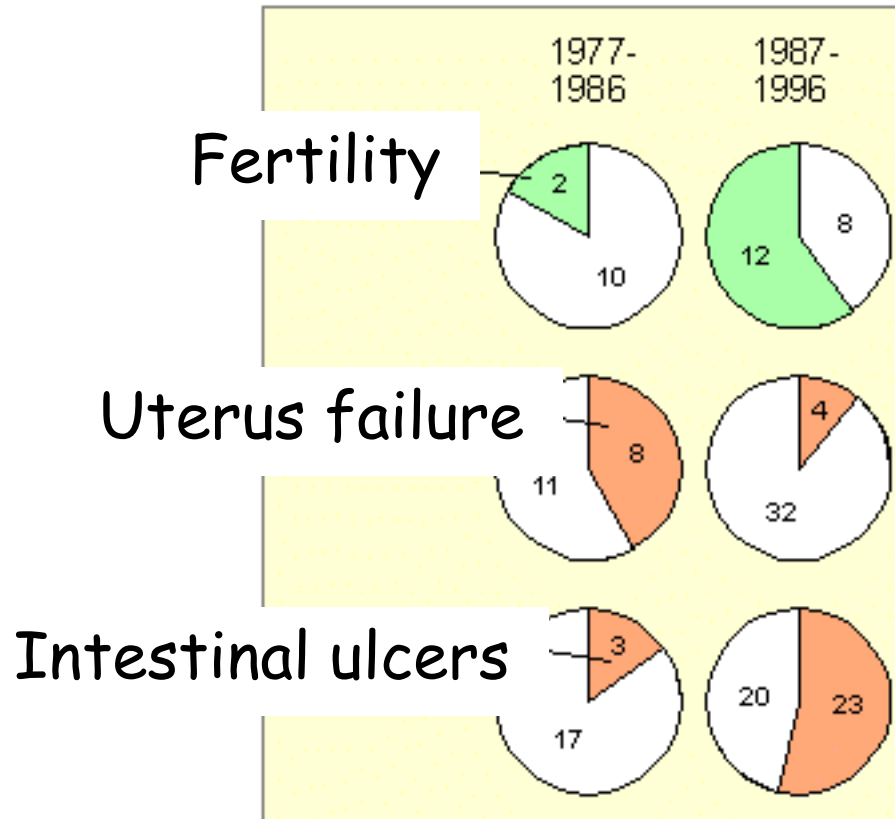
Toxins in guillemot eggs (Baltic Sea)



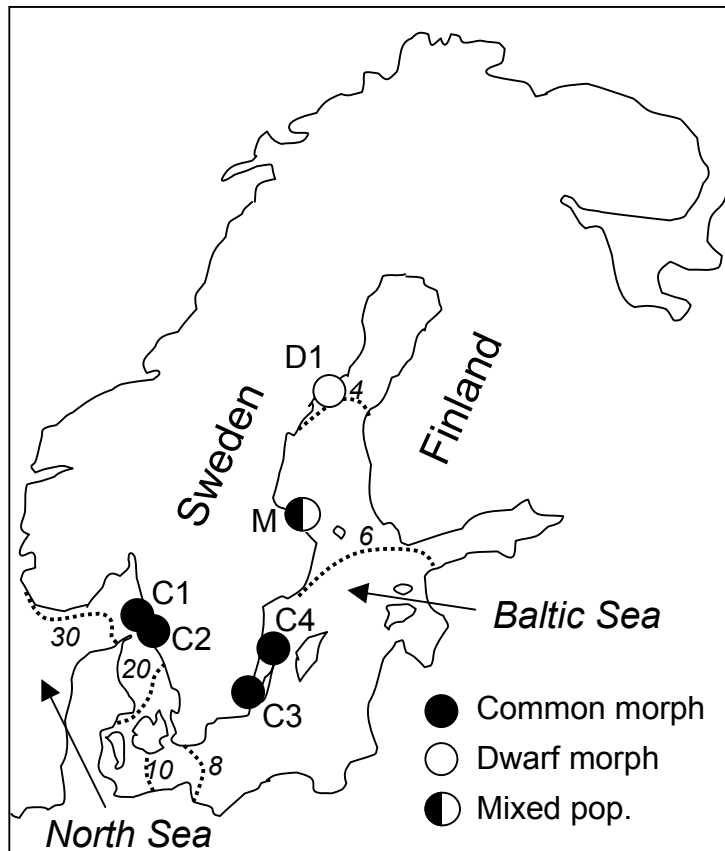
Weight at birth of children to fishermen - how severe are the contamination of our sea-food?



Grey seal diseases still caused by toxins?

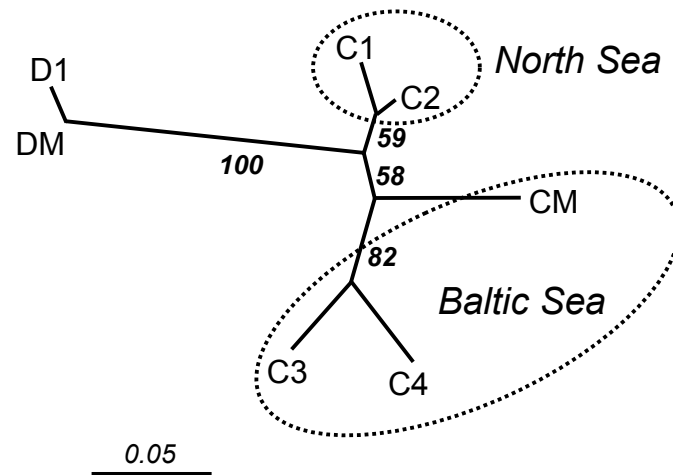


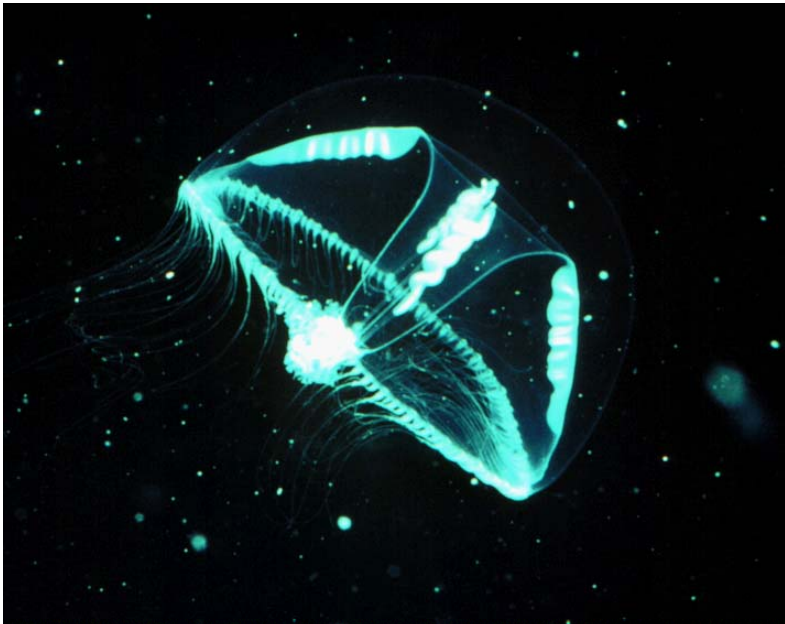
Critical seaweed genetics



Dwarf morph

Common morph





Optimizing research

- Scientific excellence
- Research driven agenda
- Small and flexible research groups (5-30)
...but infrastructures as meeting grounds
- Research rather than networking!!!
- Longterm support to multidisciplinary research