Societal relevance of ecosystem based management for fisheries policies



Jörn Schmidt



Key phrases describing Ecosystem Based Management

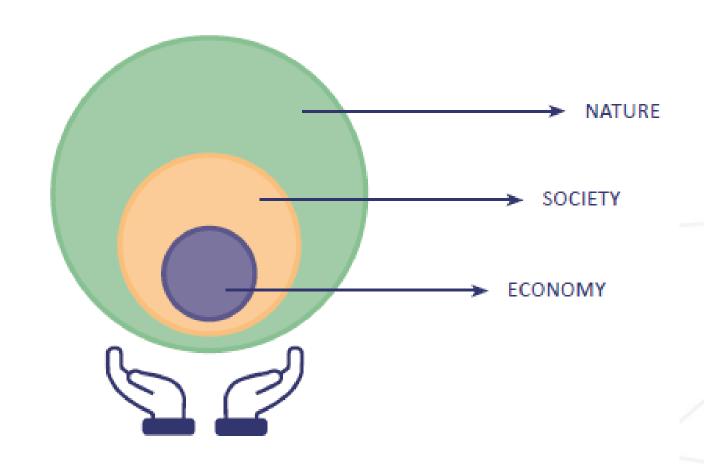


- Management of human activities
- Consideration of collective pressures
- Achievement of good environmental status
- Optimization of benefits among diverse societal goals
- Sustainable use
- Regionalization
- Trade-offs
- Stewardship for future generations

The three "pillars" of sustainability

(Daly 1996, Griggs et al. 2013)





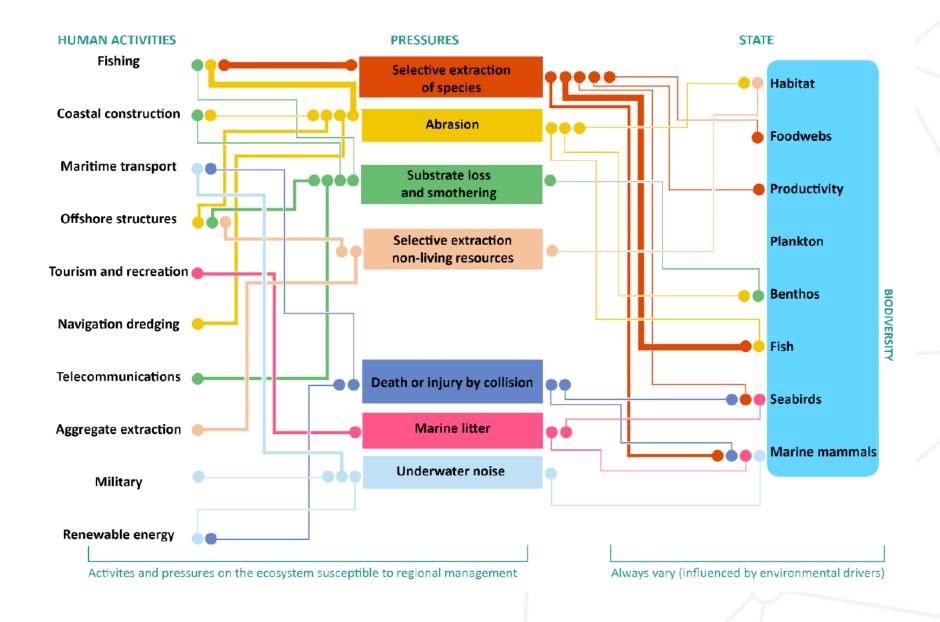
Ecosystem based approach to management





Balancing human activities & environmental stewardship in a multiple use context

Smith et al 2017





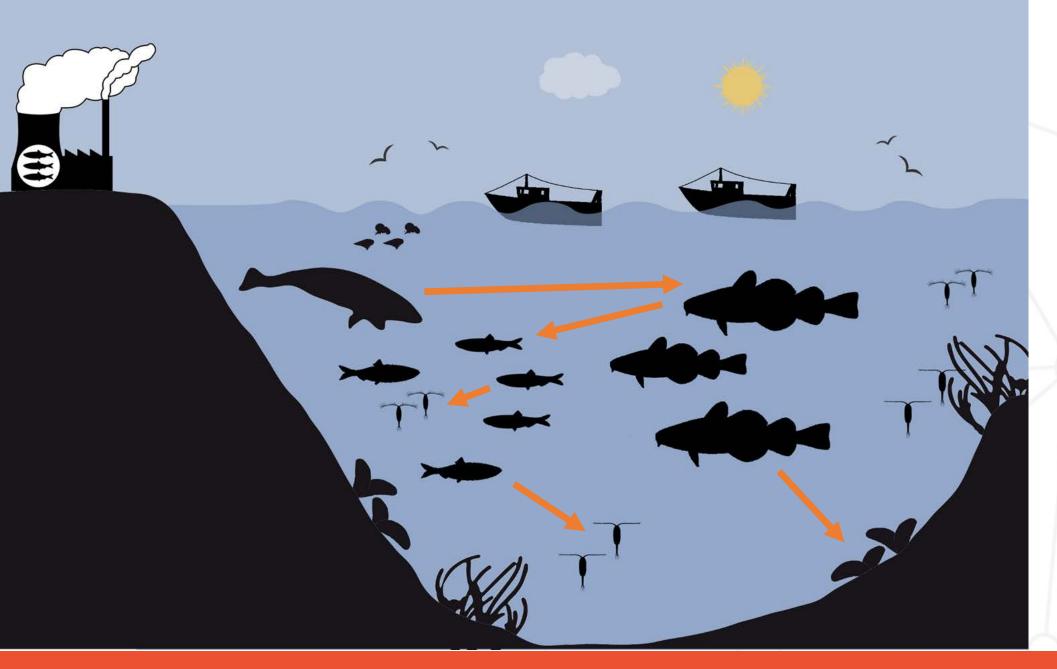
Links between the elements

What can be managed?

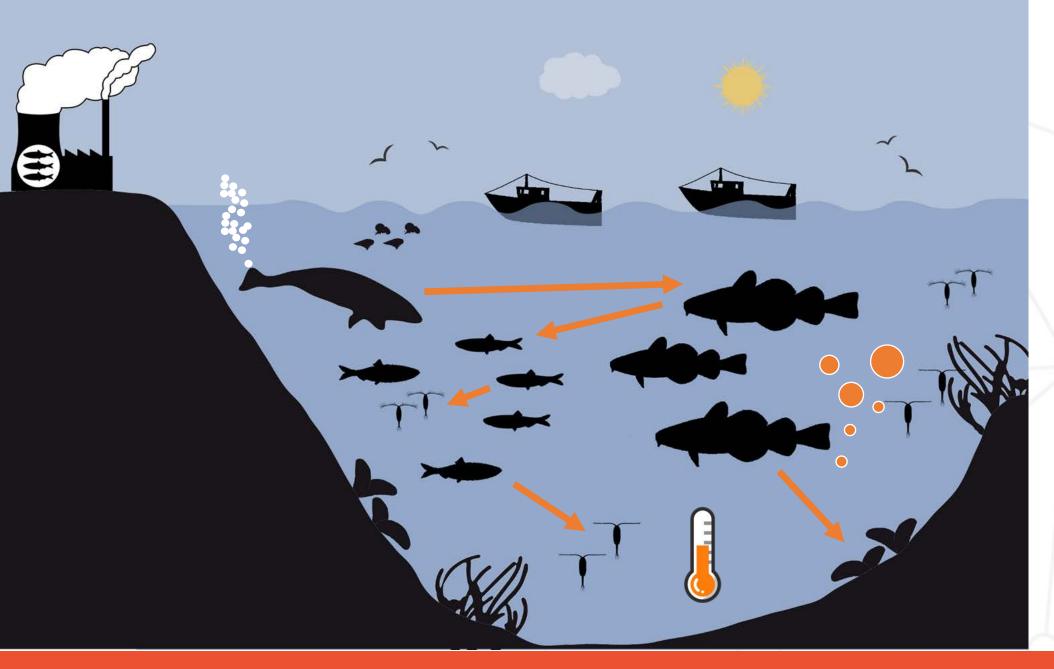
What are boundary conditions?



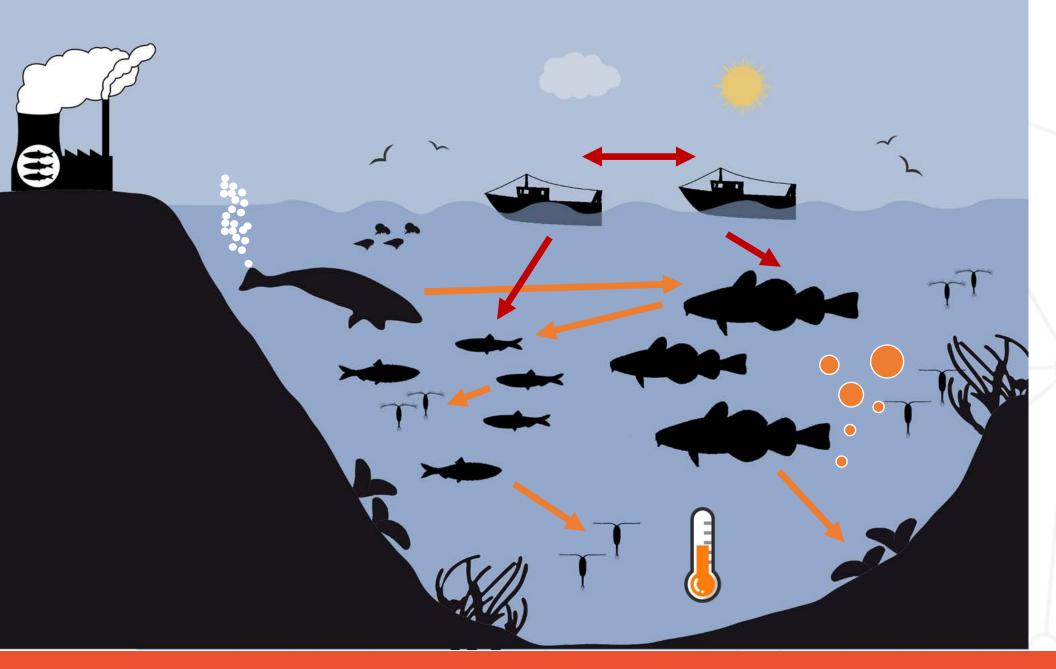




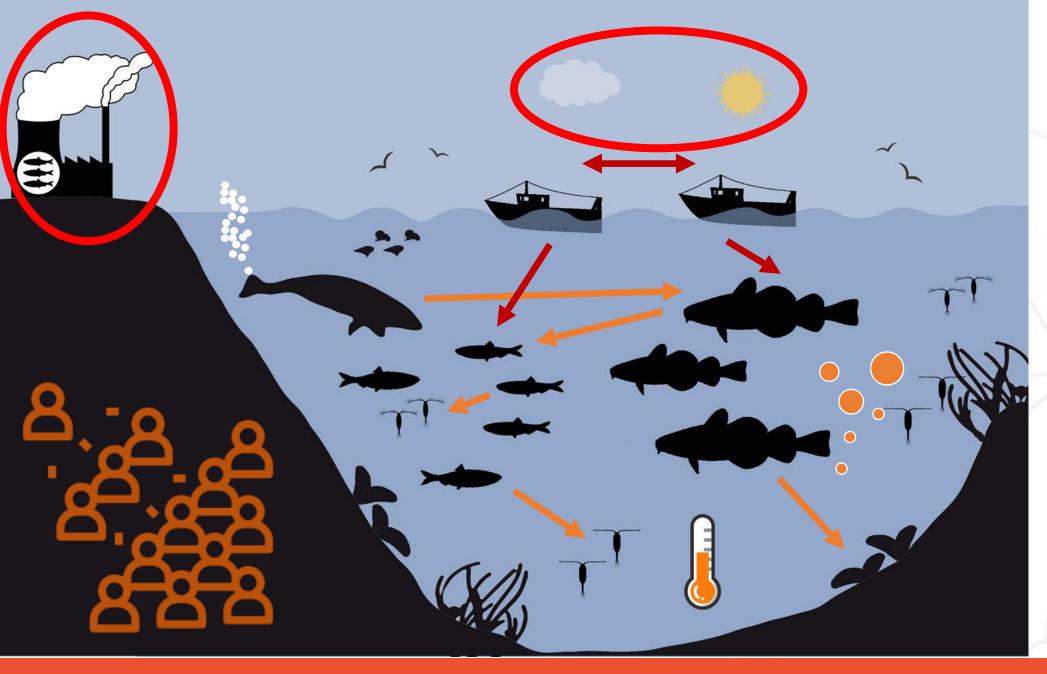






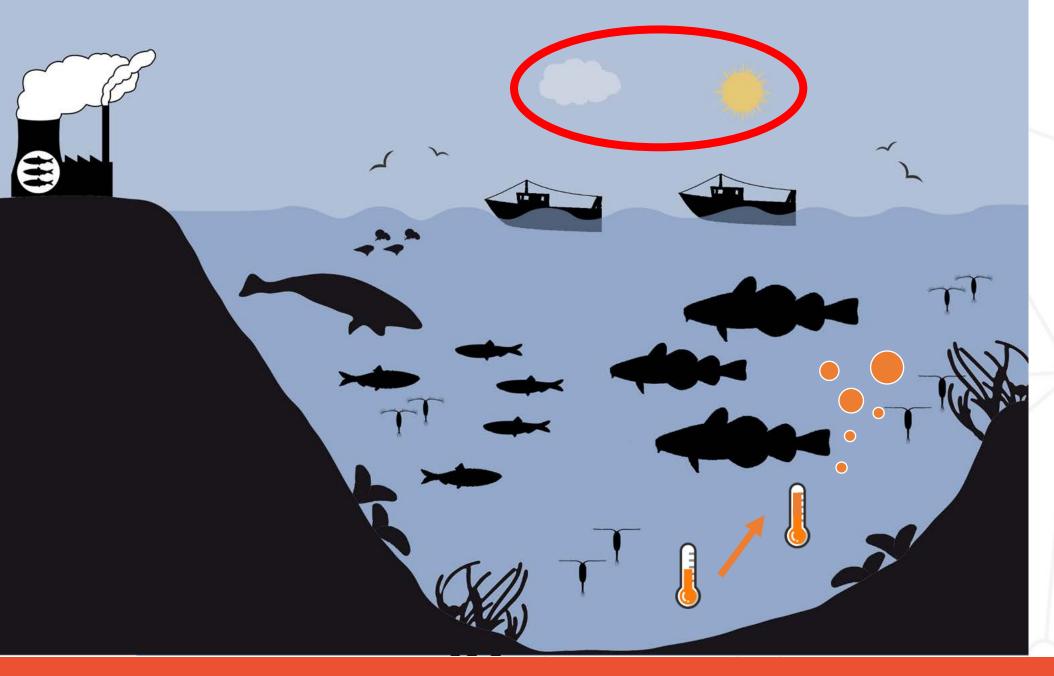








Schmidt, 2012 Science for sustainable seas





Ecosystem based approach to management



Climate change is affecting ecosystems in a way that challenges science and governance.

The ability to respond to climate variability and change is key for resilient fisheries and depending communities.



Photo by <u>USGS</u> on <u>Unsplash</u>

Change in fishable stocks caused by climate

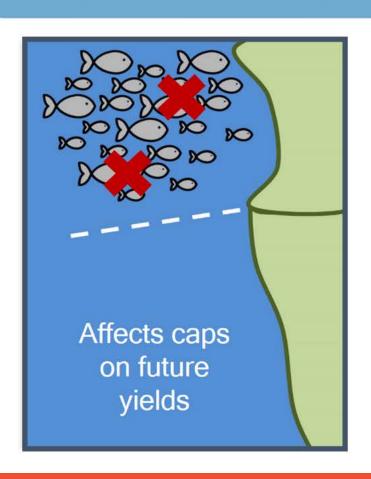




Changes in Productivity



Changes in Range



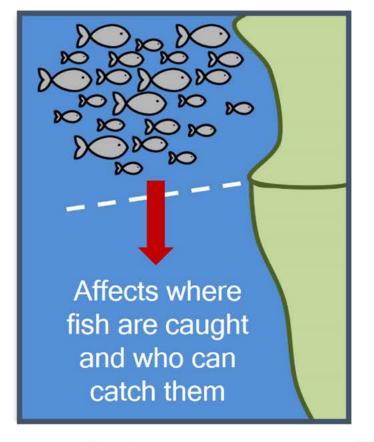






Photo by <u>Bonneval Sebastien</u> on <u>Unsplash</u>

The next presentations will showcase examples where sufficient observational data and system understanding allowed the development of models to forecast climate, ocean and ecosystem components

