

BALANCE

Synthesis: Ecologically coherent network of Marine Protected Areas in the Baltic Sea

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Objectives

1. Develop tools and methods for MPA network planning (including developing and demonstrating the Blue corridors concept)
2. Assess the ecological coherence of the existing MPA networks (first attempt).
3. Select an MPA network representing the the marine landscapes and habitats in the Baltic Sea (first attempt).

Political Frameworks

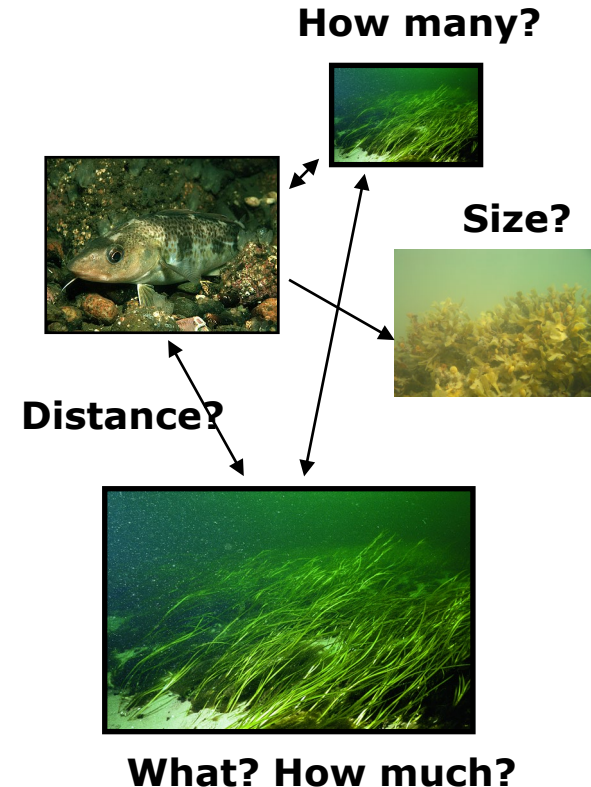
- The Habitats Directive (1992): *A coherent European ecological network of special areas of conservation.*
- IUCN (2001): *A coherent network maintaining and restoring...*
- World Summit on Sustainable Development (Johannesburg 2002): *Ecological networks are key instruments.*
- Environment for Europe (Kiev 2003): *Representative networks by 2012.*
- OSPAR & HELCOM (2003): *Well-managed ecologically coherent networks of MPAs by 2010.*
- CBD COP7 (Malaysia 2004): *A global network of comprehensive, effectively managed and ecologically representative MPAs by 2012.*

A coherent MPA network

MPAs – Any area of intertidal or subtidal terrain, together with its overlaying waters, and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment. (*IUCN*)

MPA networks - are composed of individual MPAs that are physically discrete and may have separate management structures and regimes, but that are *interlinked* and together meet objectives that single MPAs cannot achieve on their own. (*WWF Canada*)

A coherent MPA network – Four criteria: representativity, adequacy, connectivity, replication (*OSPAR, HELCOM, BALANCE*)



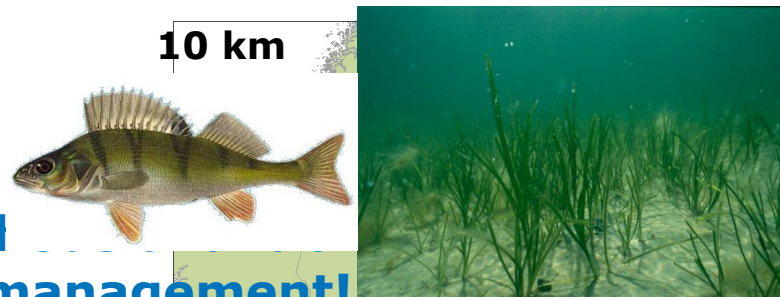
Tools and methods

BALANCE has showed:

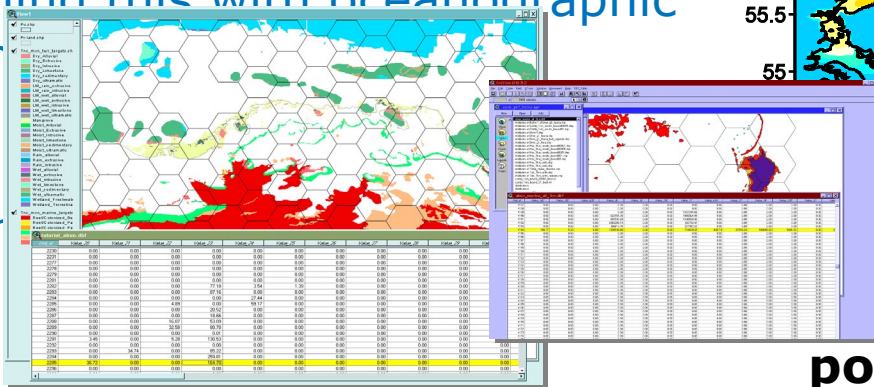
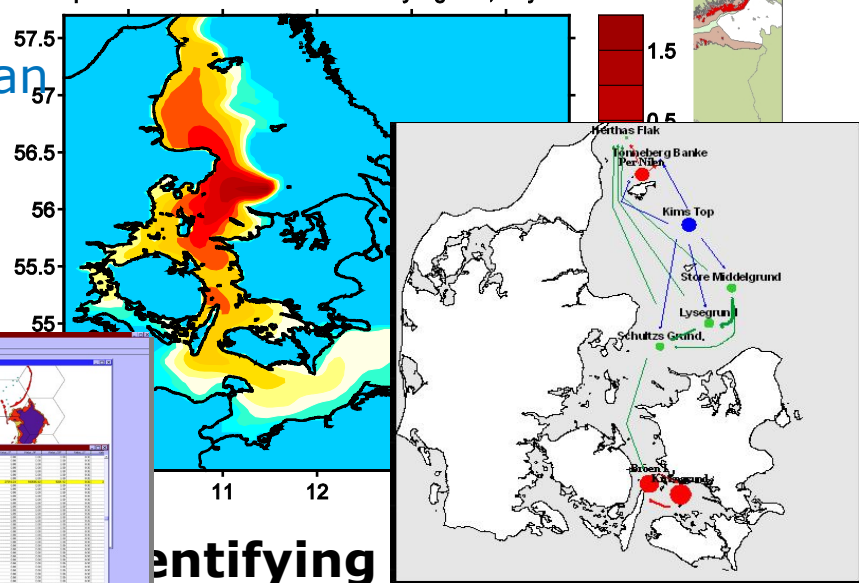
- How connectivity can be assessed
- There are many useful tools and methods and data can be assessed by using GIS analyses

- improve MPA network planning and management!
- existing data on habitat preferences
- how dispersal data and MPA networks can be identified by using MARXAN
- available data on larval duration and combining this with oceanographic data that

- a scheme of connectivity



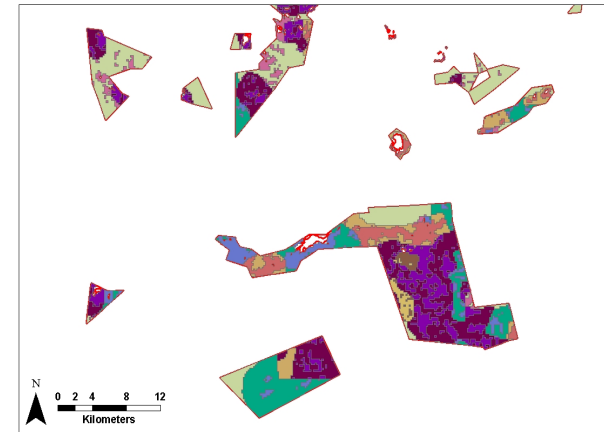
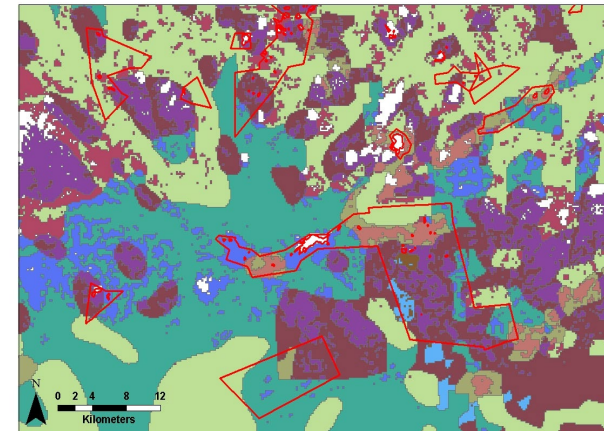
Dispersal of invertebrate larvae from Lysegrund; July 2003



Identifying potential Blue corridors

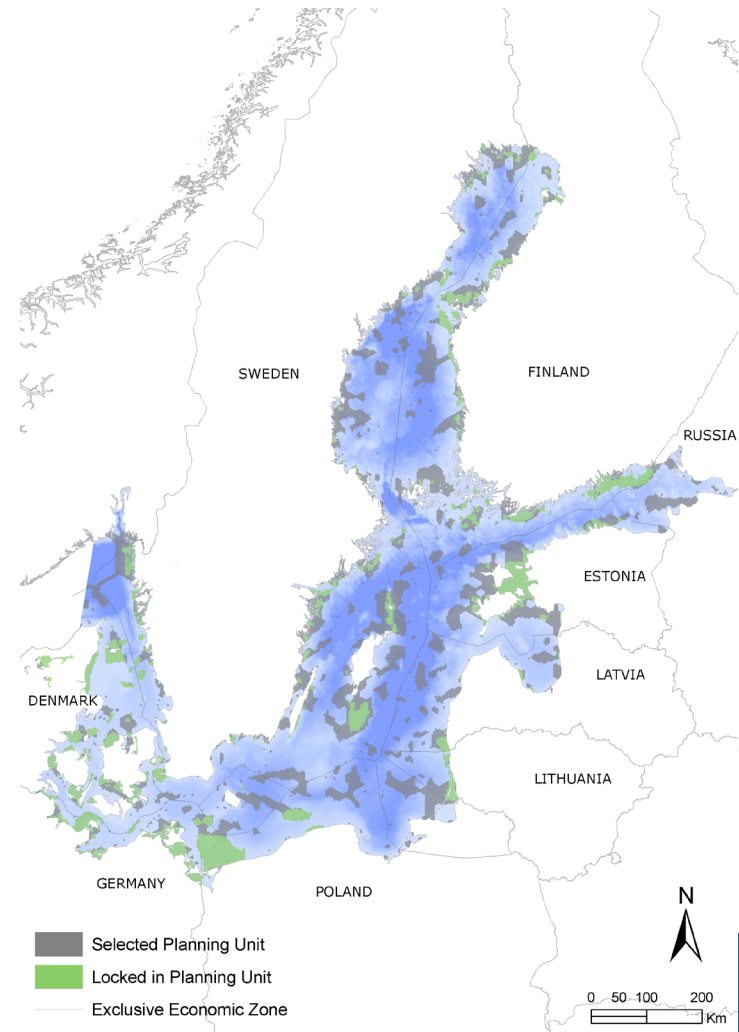
Assessment of existing MPA networks

- Existing Natura 2000 and SPA networks are not adequate today.:
 - lack of large sites
- It is possible to move from theory to practice (e.g. criteria)
 - gaps in geographical and marine landscape representation
- Challenges:
 - low connectivity (especially for species with short distance dispersal)
 - lack of clearly formulated conservation goals and targets
- The assessment methods should be continuously improved
 - lack of ecological knowledge and data



Systematic site selection

- The regional system is available to site selection possible
 - Alternative network scenarios
- Tools like MARXAN are likely to select more efficient networks than "site by site" approach!
 - Starting point!
- Methods should be continuously improved
 - lack of clearly formulated conservation goals and targets
 - lack of ecological knowledge and data

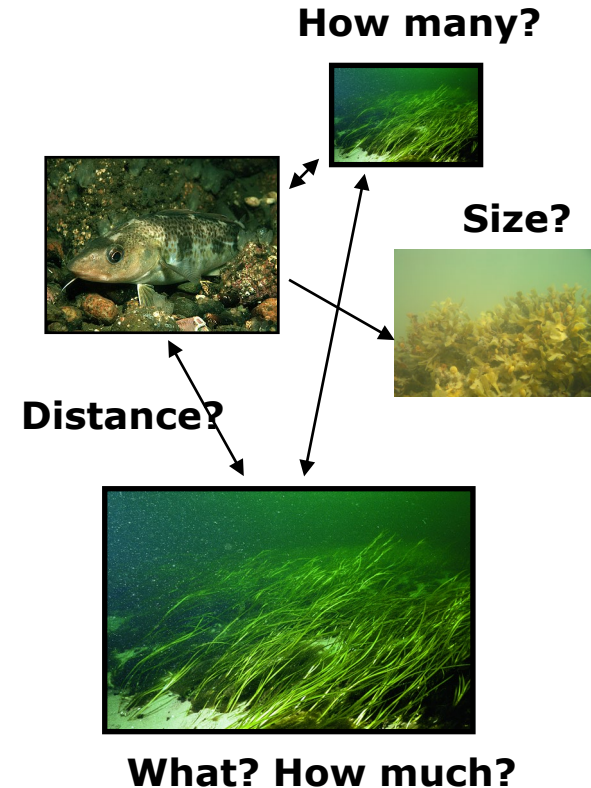


Conclusions

- The existing Baltic Sea MPA network need to be improved
- The Habitats Directive only protects species and habitats in the annexes
- A systematic regional approach should be used for
 - assessment
 - site selection
- MPA network planning is an adaptive process, revise and improve continuously
- Do not wait for perfect knowledge - use best available knowledge
- MPA network planning should be scientifically based, but...
- ...socio-economic and political values will have profound influences
- MPAs should be seen as a key component in a spatial planning process (one tool in the toolbox)

Next steps

- Fill already identified gaps in the existing MPA networks
- Continuously revise and improve the MPA planning process
- Improve ecological knowledge – how much, how far etc
- Formulate and agree on overall goals, targets and criteria
- Collect new data and make existing data available (ecological and socio-economic)



Perspectives

- The protection and sustainable use of the Baltic Sea ecosystem is a regional responsibility.
- Only with joint regional effort will we be able to *protect the ecosystem...*
- ...and *fulfil international and regional conventions and agreements.*
(*Habitats Directive, HELCOM Rec/Decl, Maritime Directive, Marine Strategy Directive, etc.*)
- Implementation depends on e.g. EU, HELCOM and contracting parties.



To create enough space for both humans and nature we need to apply a regional integrated approach!

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Thank you for your attention

