

Baltic Sea Center, Stockholm University Sweden

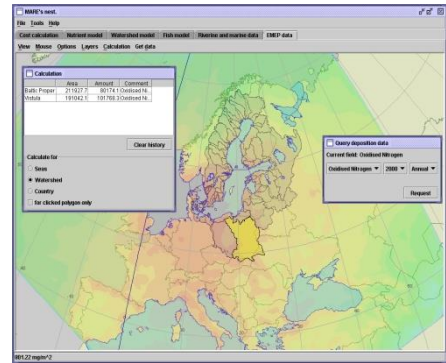
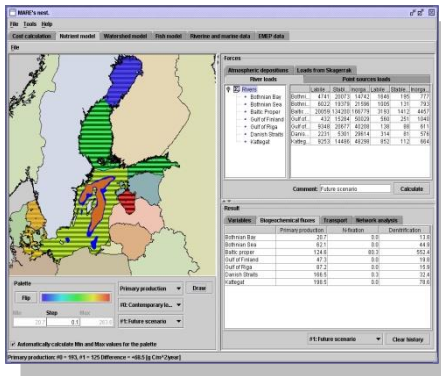
Maciej T. Tomczak

MAREFRAME – BSC Main Expertise:

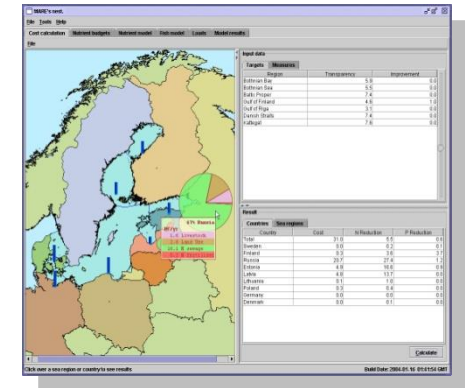
- Baltic Sea ecosystem
- Multiplay ecosystem forces (fisheries, eutrophication)
- Integrated Ecosystem Assessmet
- Food-web modeling
- Ecopath with Ecosim
- Ecological Network Analysis
- "Baltic NEST" (Decision Support System)
- DAS (Data Assimilation System) for Baltic Sea
- BED (Baltic Enviromental Database)
- BALTSEM – biogeochemical model for Baltic Sea

Atmospheric emissions and load

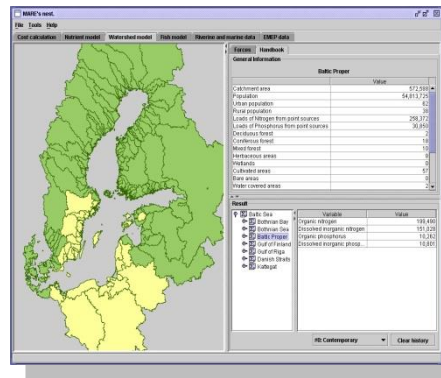
Marine modeling



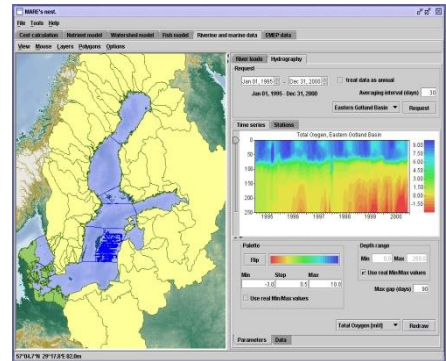
Cost minimization model



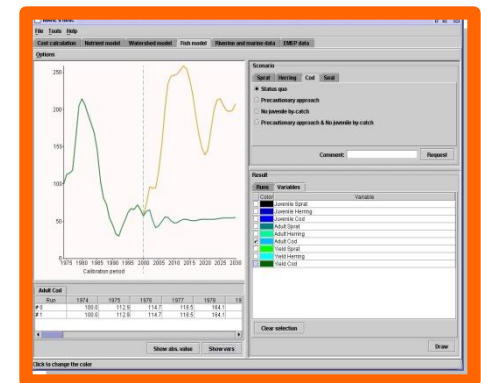
NEST DSS builds on
six different models
www.balticnest.org



Drainage basin modeling

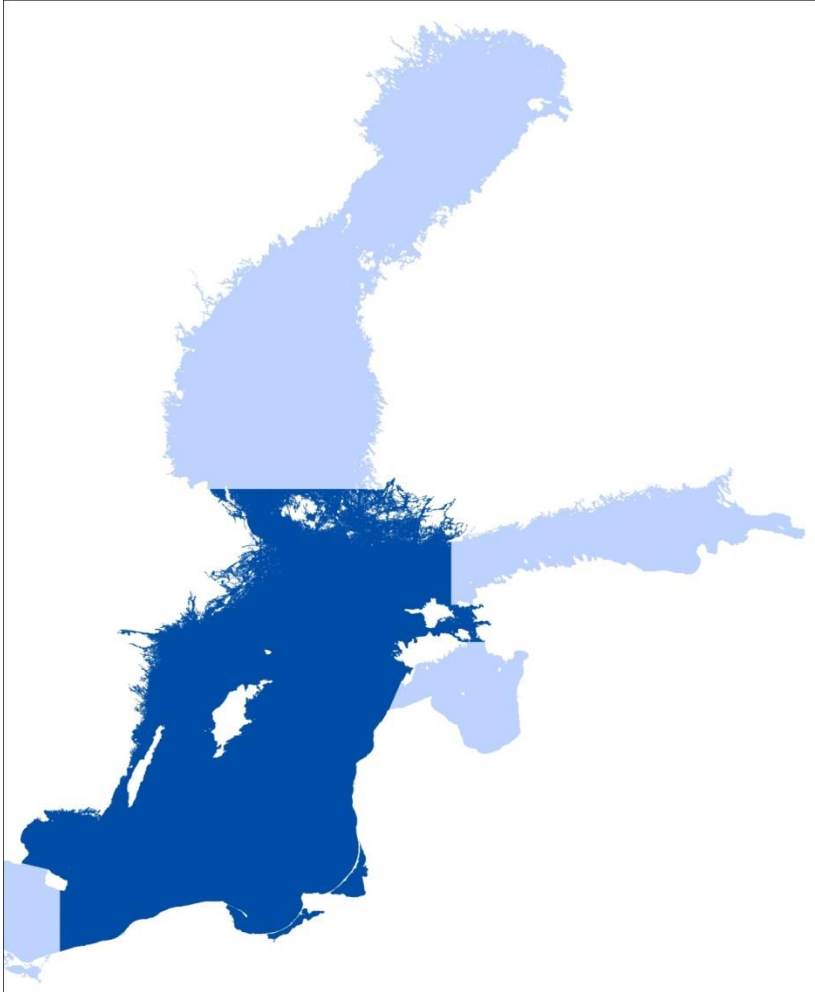


Marine and runoff data



Fishery management

Study area



Baltic Proper

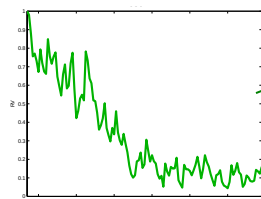
- ICES SD 25-29:32 ex GoR and GoF
- Area: c.a $2.4 \cdot 10^5 \text{ km}^2$

Characteristics

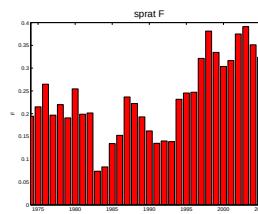
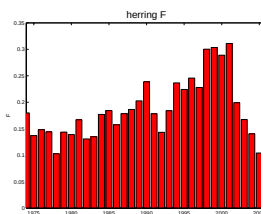
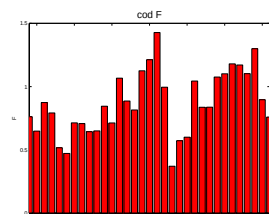
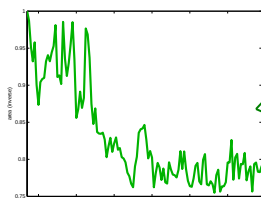
- large semi-enclosed brackish water body
- low diversity
- high productivity
- eutrophication
- high fishing pressure
- climate influences through temperature and salinity
- irregular inflows from North Sea
- stratified

fishing
climate
climate+nutrients

cod RV

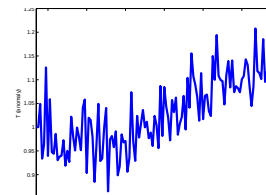


Reverse hypoxia

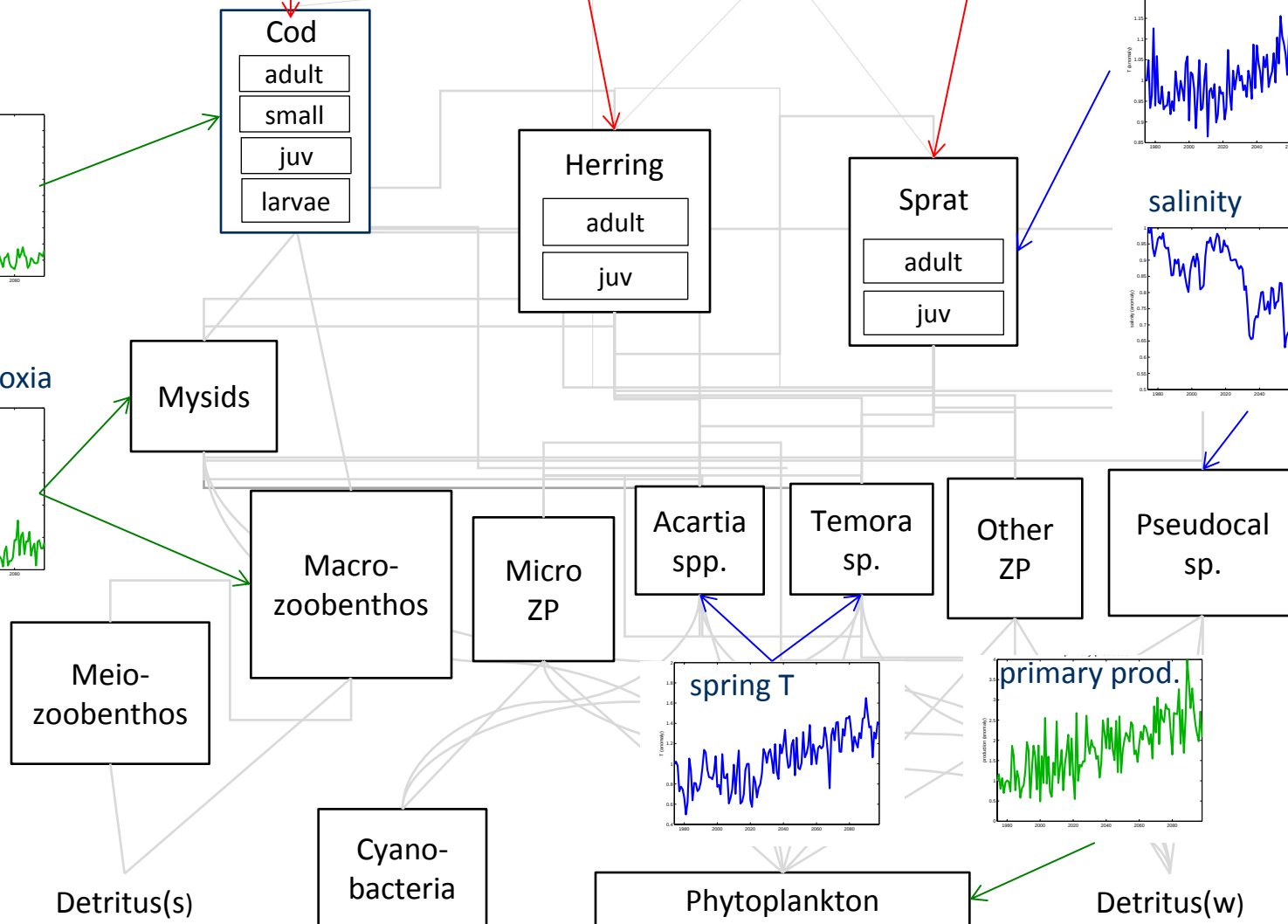
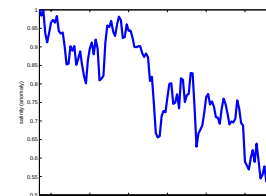


Seals

August T



salinity



Thank You