

Gulf of Finland Year 2014

NOSTRA – Forum, October 1th 2013
Hotel President, Helsinki, Finland

Kai Myrberg



**Gulf of Finland
Year 2014**



Finnish Environment Institute/Marine Research
Centre, Helsinki, Finland



The vision of the Gulf of Finland Year – solutions for sustainable use of the sea



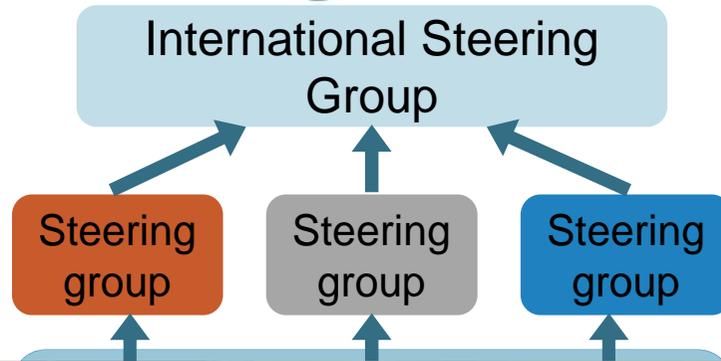
- An opportunity, for the first time, to analyze the ecological status of the Gulf of Finland in detail by joint efforts of the three countries
- Active collaboration among scientists, decision-makers and the society
- Produces up-to-date research information to support ecosystem based decision making
- Various events and courses increasing public awareness



Gulf of Finland Year 2014 project organisation



Gulf of Finland
Year 2014



Public
Council



work



GoF Year 2014 – additional practical value



- Collection of new scientific information
- Deepening of international co-operation
- Intensifies co-operation with cities
- Strengthening of educational co-operation
- Increases the co-operative work with private sector
- Up-to-date information to decision making
- Intensified co-operation among administration
- Professional services available to all
- Media visibility

Activities during the Gulf of Finland Year 2014



- Active research - joint monitoring and research projects
- Scientific Forums in all three countries
- International events
- Events in cities
- Public events
- Working and interacting with the interest groups
- Courses and summer schools for pupils and students
- Tailored seminars to politicians, decision makers, reference groups and media
- **The Gulf of Finland Declaration**

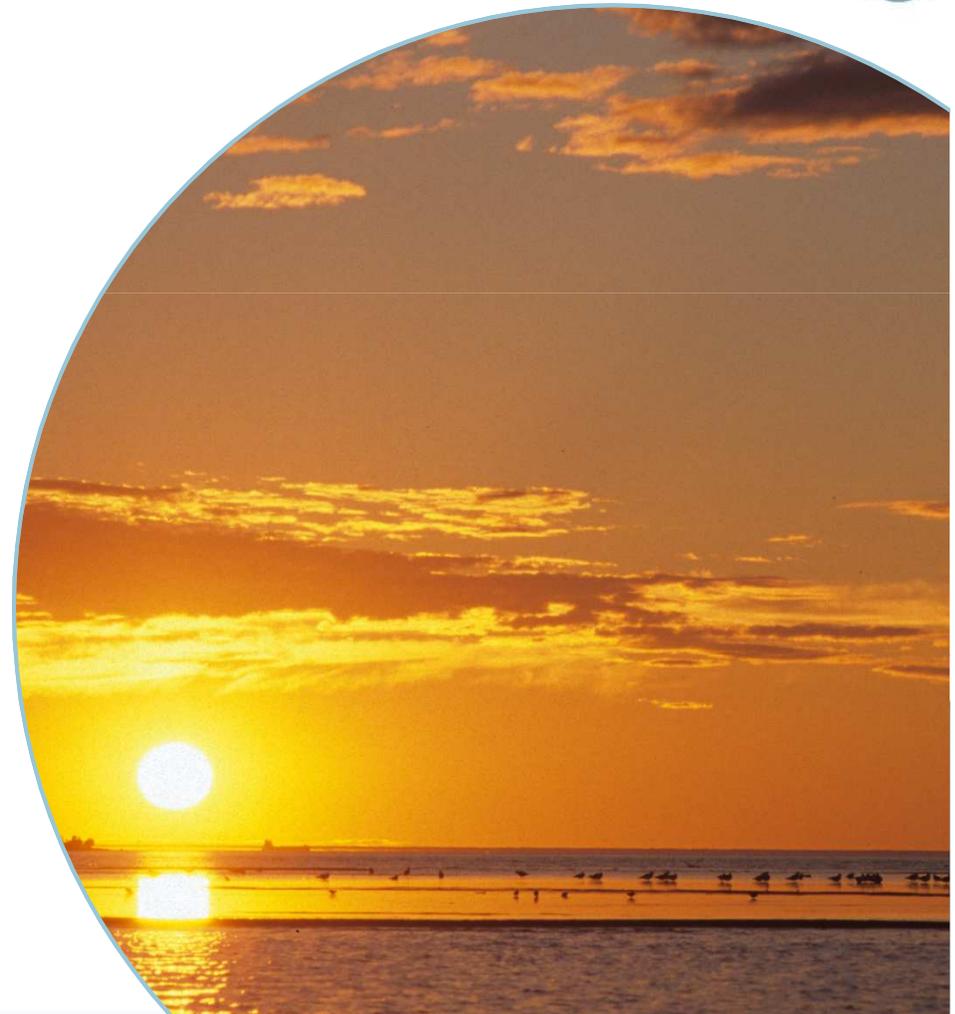


The Gulf of Finland Declaration



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- Concrete suggestions how to protect the Gulf of Finland and to implement its sustainable use
- Commit the three countries in a political level
- More co-operation in environmental policy in the region
- Youth declaration

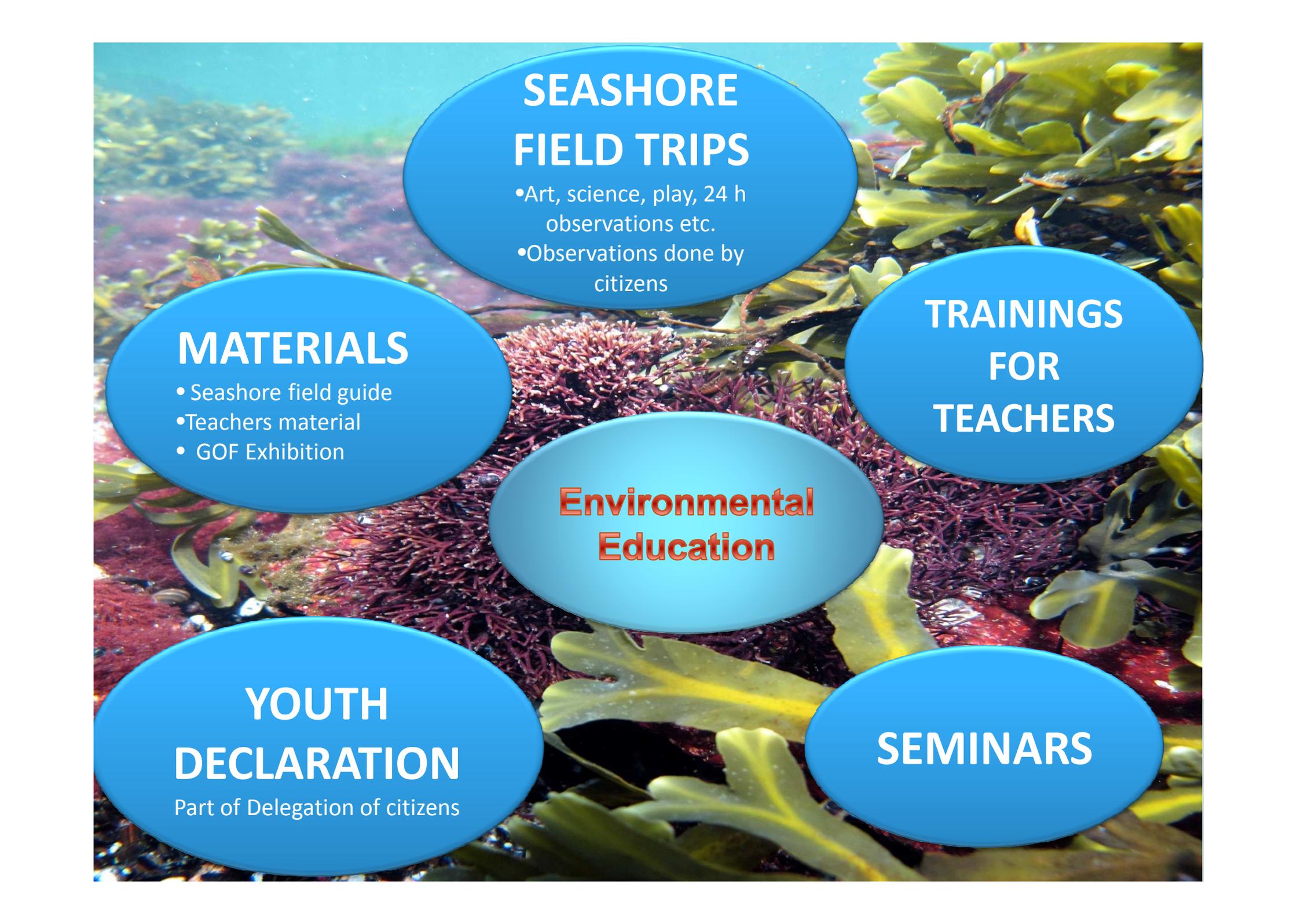


Activity in 2015 relating to the Thematical Year:



- Seminars and public events: "What can I do to protect the Gulf of Finland?"
- Seminars about the scientific information collected during the year
- Reports and recommendations to decision makers
- Scientific and popular publications





SEASHORE FIELD TRIPS

- Art, science, play, 24 h observations etc.
- Observations done by citizens

MATERIALS

- Seashore field guide
- Teachers material
- GOF Exhibition

TRAININGS FOR TEACHERS

Environmental Education

YOUTH DECLARATION

Part of Delegation of citizens

SEMINARS

Co-operation with the coastal cities



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Turku-Hanko-Helsinki-Kotka-Sankt- Petersburg-Tallinn

- Scientific and educational activities
- Tourism
- History (marine museums)
- Cultural events
- Regattas
- Ports
- Themed events
- Cruises,
visiting research vessels

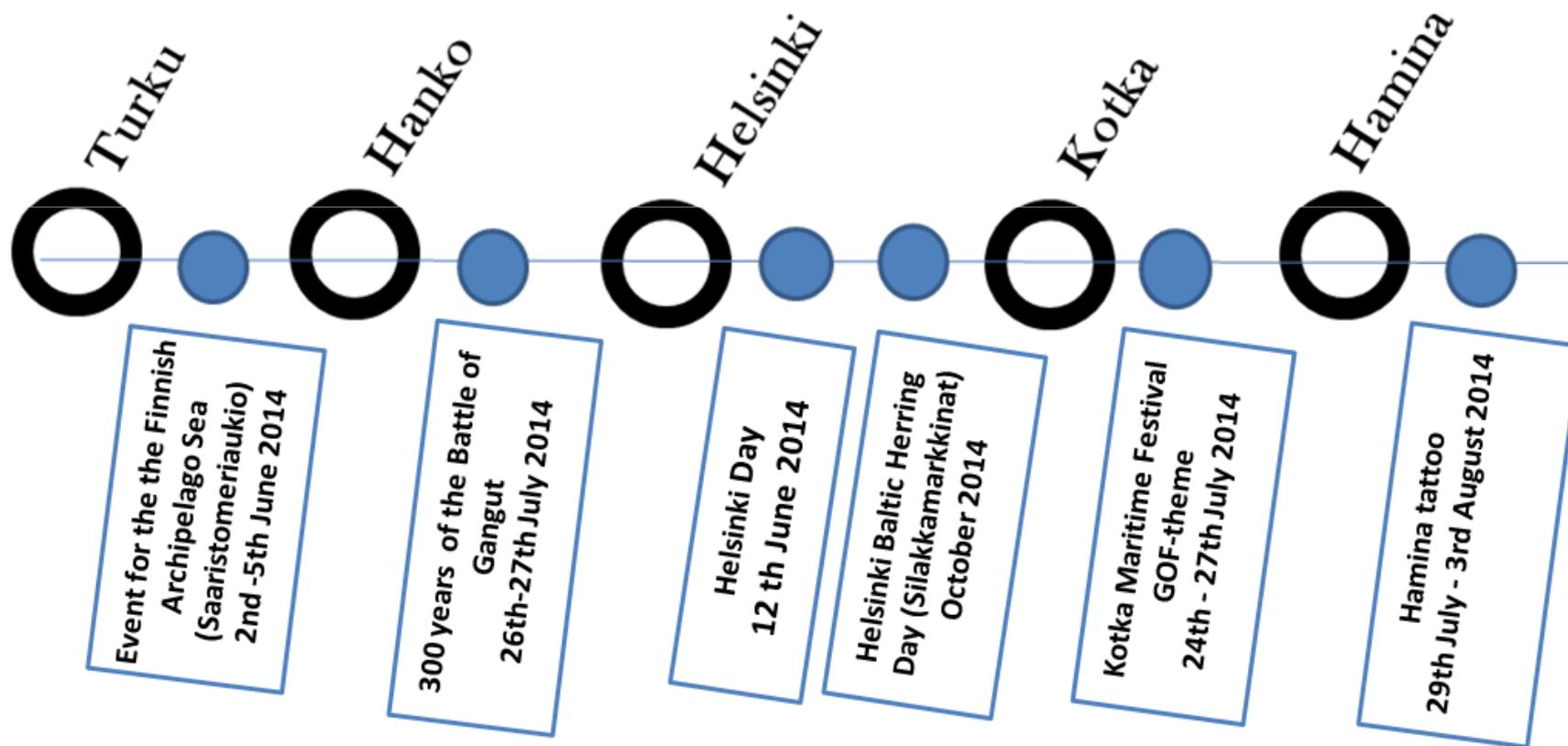


Gulf of Finland Year 2014 main events in Finland



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Over 50 Public Events

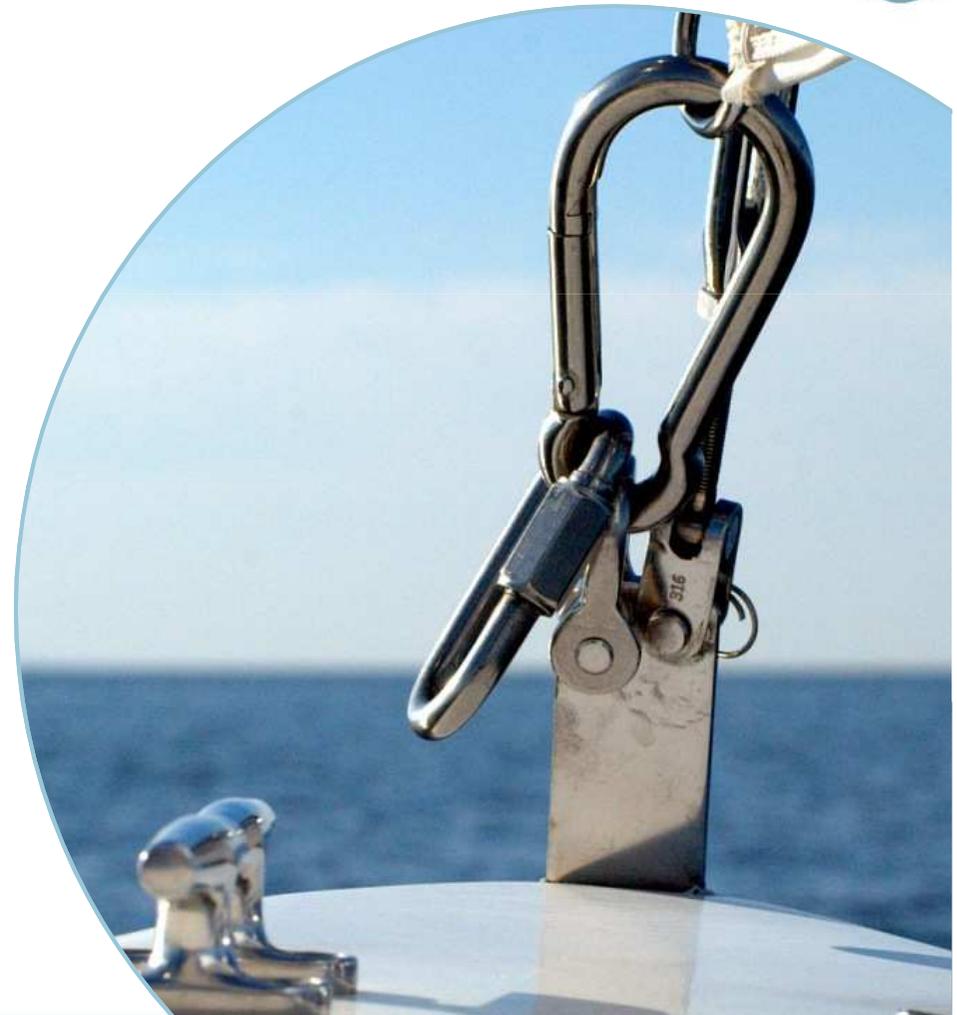


Research



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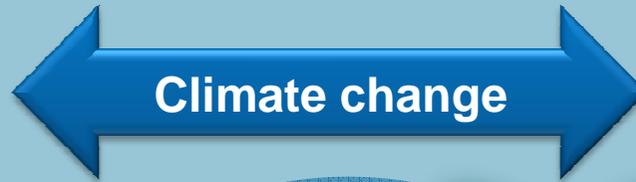
- International co-operation, including HELCOM and scientists from all Baltic Sea countries
- Collation of existing data
- Data exchange among partners
- New co-operation possibilities
- New projects
- Information dissemination to experts, decision makers and general public



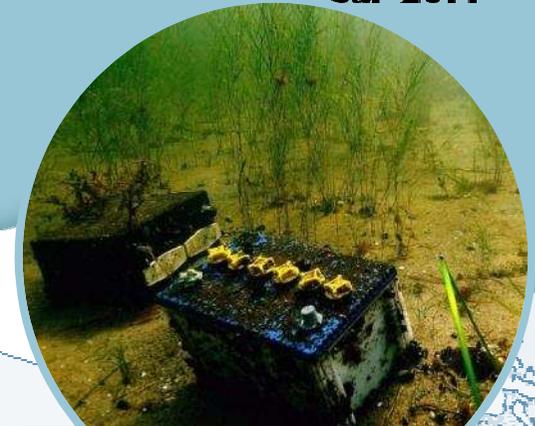
Research themes of the Thematical Year



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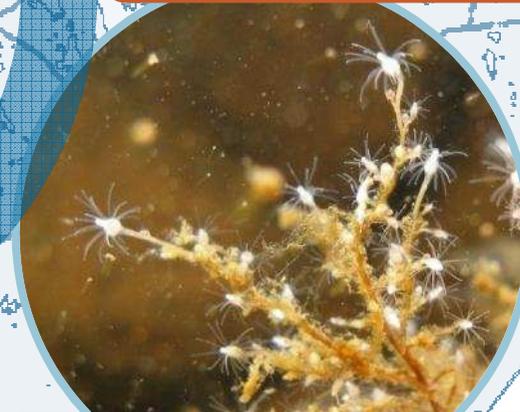
Fish and fishery



**Pollution and
Ecosystem Health**



Marine traffic safety



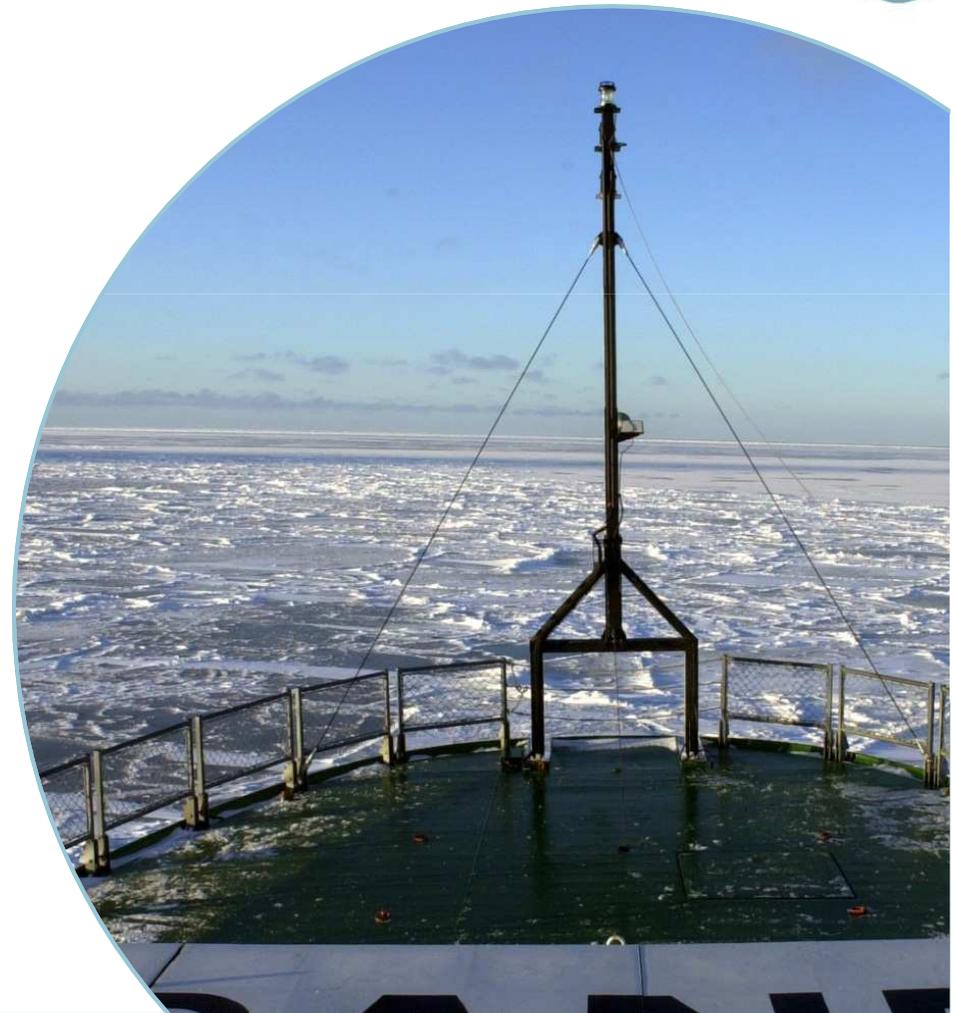
Bio- and geodiversity

Monitoring the state of the GoF



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- An assessment of the current state of the GoF
 - Existing and new joint data on high resolution
 - Compatibility to previous HELCOM assessments
- Inter-calibration August 2013
 - FIN-RUS-EST cooperation
 - Water column parameters
- Production of new data 2014
- Recommendations on how to improve the state of the GoF



Biological and Geological Diversity



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- Environmental parameters influencing biota
 - Distribution of key species, fish, birds and seals
 - Invasive alien species
 - New methods for data collection and analyses
 - Map tool for the recognition of environmentally most valuable areas in the GoF
- Background data for all other themes



Fish and fisheries



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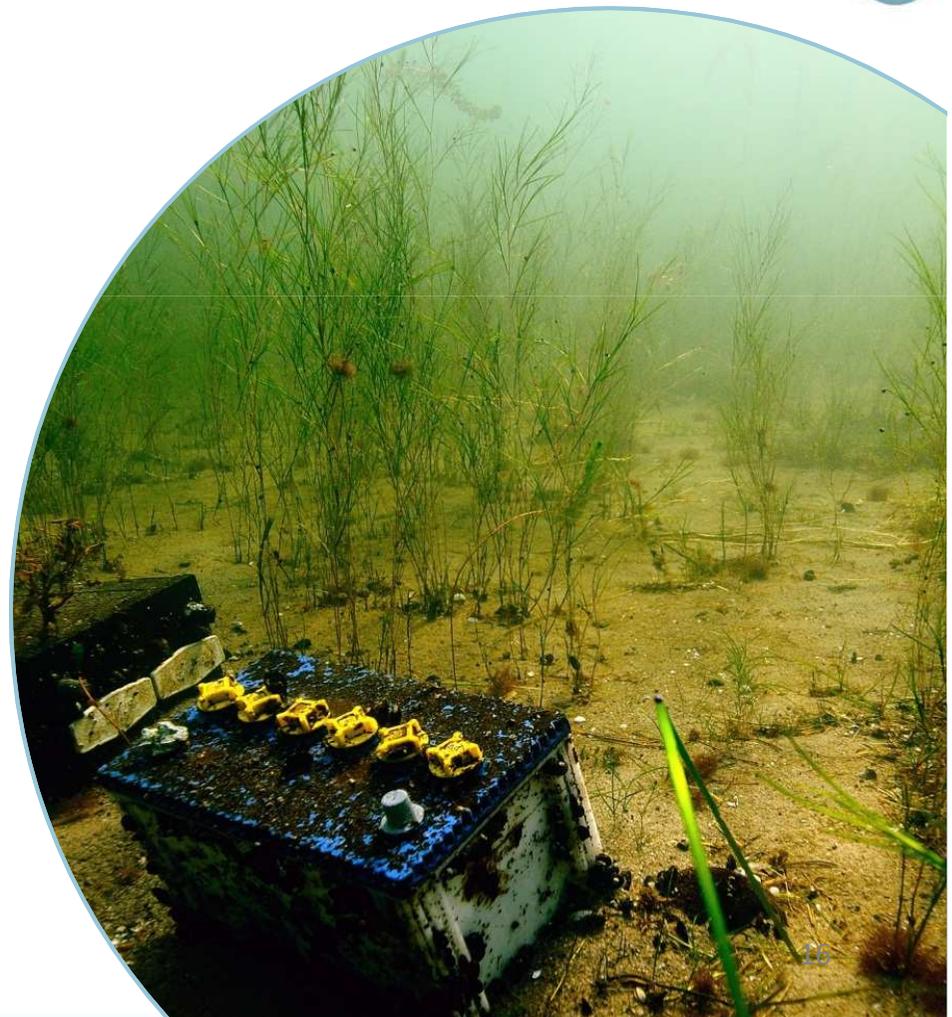
- Fish community changes and their causes
 - Long-term changes in community structure and species abundance
 - Changes in distribution patterns (especially on Baltic herring and sprat)
 - Acoustic surveys of Baltic herring, sprat and freshwaters fishes
 - New methods for assessing the state of the fish stocks (Bayesian models, SAM)
- Anthropogenic forcing
 - Environmental disturbance on fish populations
 - Assessment of coastal and commercial fish contamination with hazardous substances indicators)
 - Local physical disturbance, e.g., dredging and dumping of the dredged material
- Sustainable use of fish resources
 - Long-term changes and management of commercial stocks based on fish-catch statistics
 - Fishery research in the estuaries of the rivers running into the Gulf of Finland (mainly salmonds)
 - Development of indicators to describe the status of fish stocks and the status of the marine environment

Pollution and ecosystem health



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- Distribution of hazardous substances
- Effects of hazardous substances on ecosystem health
- Development of indicators
- New research and monitoring methods



Maritime safety with a special focus on winter conditions



- Development of next generation winter time traffic system
- Monitoring maritime activities and development of new practises to increase safety
- Winter maritime system description
- Navigational interactions among vessels
- Harmonization of ports
- Establishment of oil response and testing centre
- Development of training in ice condition operations
- Smart use of currents to minimize the consequences caused by marine



Maritime spatial planning



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- Pilot MSP for the whole GoF
- Geographical hotspots
- Unification of the background datasets
- Legislative and administrative differences/similarities in MSP
- Modeling existing/evolving conflicts in human activities in the GoF



Overarching themes



Eutrophication

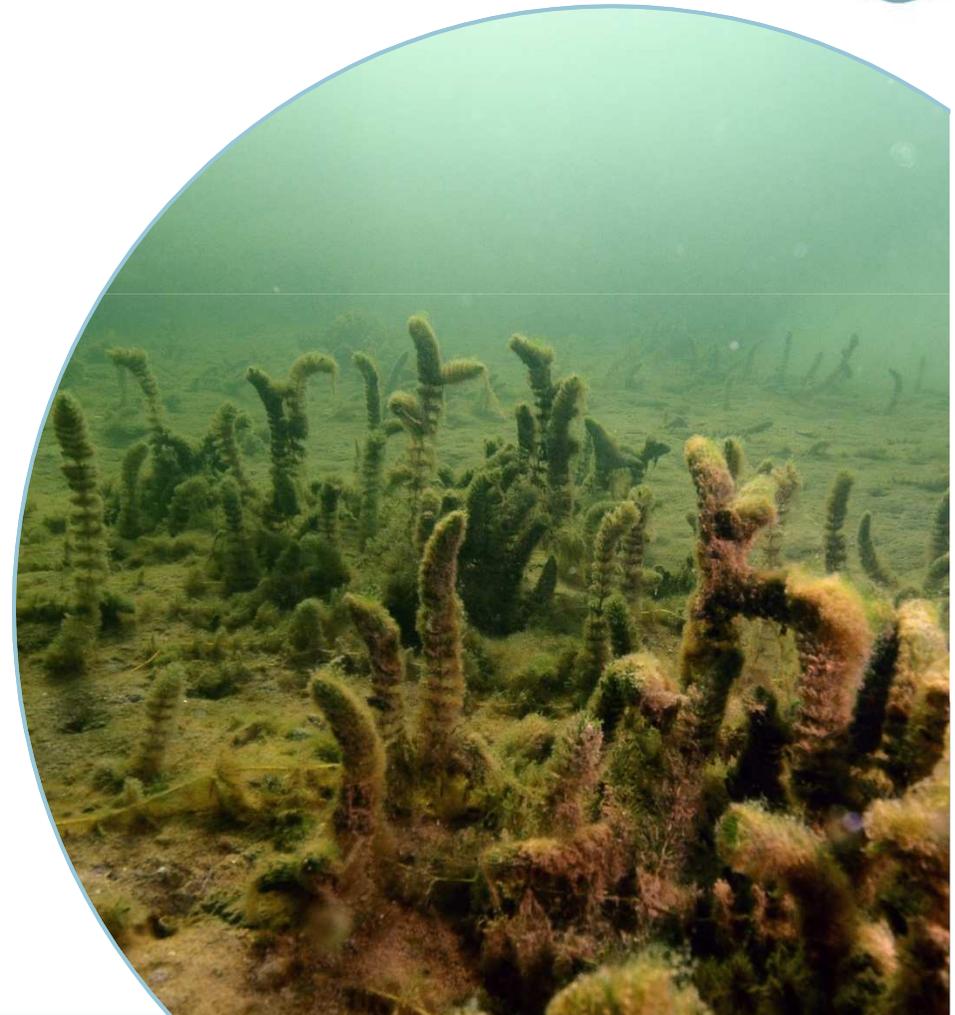
- Main part of the status assessment
- Cooperation among IL RAS - HELCOM BASE – BSAG – Vodokanal in Russia
- Current eutrophication status of the GoF
- Identification of the most harmful human activities in the GoF catchment area
- Identification of the most important activities to prevent and remediate the effects of eutrophication
- Effects of eutrophication in shallow coastal areas
- Modelling the long-term effects of nutrient load reductions

Climate change

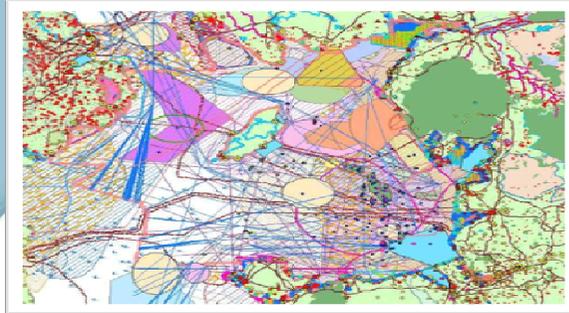


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- Effects of CC on the physical environment
- Effects of CC on biota
- Effects of CC on human activities in coastal and watershed areas



Results



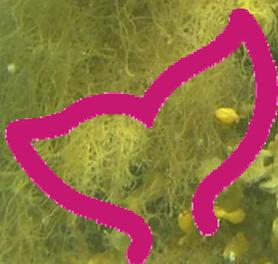
**Gulf of Finland
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- Assessment of the status of the GoF
- Policy briefs on selected topics
- A modeling exercise combining the environmental and socio-economic values 'GoF Human Impact Index'
- Reports
- Scientific publications
- GoF Declaration



Updated scientific information of the status of the GoF ecosystem enables us to make the most cost-effective and well-targeted actions to stop the deterioration of the GOF and get support to these actions due to high political commitment to the work

As a results of this the GoF ecosystem is expected to be "clean ahead of time"

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FINLAND**
2014