



ICES – A Trans-Atlantic Maritime Research Organization Cornelius Hammer

Science for sustainable seas . International Council for the Exploration of the Sea . www.ices.dk

ICES CROSS-ATLANTIC

- ⇒ICES brings scientists together
- ⇒ICES provides the working platform
- ⇒ICES coordinates the fieldwork
- ⇒ICES organizes and analyses the data
- \Rightarrow ICES publishes it
- \Rightarrow ICES provides the basis to make informed decisions

ICES in a nutshell





ICES Strategic Plan 2014-2018

Priority areas

Aquaculture

Arctic

Integrated Ecosysteme Assessments



ICES STRATEGIC PLAN 2014–2018

ICES in a nutshell



MARINE SPATIAL PLANNING / SEABED HABITAT MAPPING

- ICES develops concepts and tools for Marine Planning and Coastal Zone Management in response to the increasing intensity and establishment of new sea uses and as input to policy instruments in EU and North America.
- ICES coordinates the review of habitat classification and mapping activities in the ICES area and promotes standardization of approaches and techniques, in the frame of regional conventions and European directives.
- ICES could contribute to the mapping of seabed habitats, by providing input on which classification system and meta-language should be applied.
 ICES already provides a platform for exchange on terminology, concepts and methodologies. This could be intensified.



OCEAN STRESSORS / GOOD ENVIRONM. STATUS

ICES is going to produce ecosystem assessments in regional seas. ICES is committed to provide the required data, in collaboration with its strategic partners round the Baltic, bringing together the scientists.



Aquaculture

ICES has a long history of working and advising on aquaculture issues. ICES has a focal point for aquaculture-environment interactions. ICES is the institution for addressing advisory and science requests related to the sustainability of aquaculture farming practices.





FISHERIES / Multi Species Modelling etc.

....are a core area of ICES competence, providing advice on >240 marine stocks including catch advice, stock status, stock forecasting, discarding, multi-species and mixed fisheries considerations, ecosystem overviews/integrated advice.

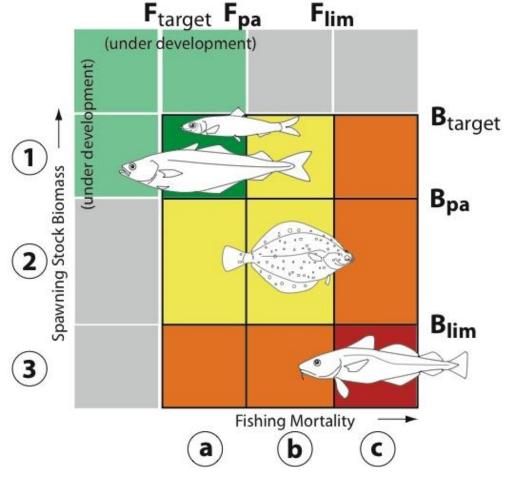
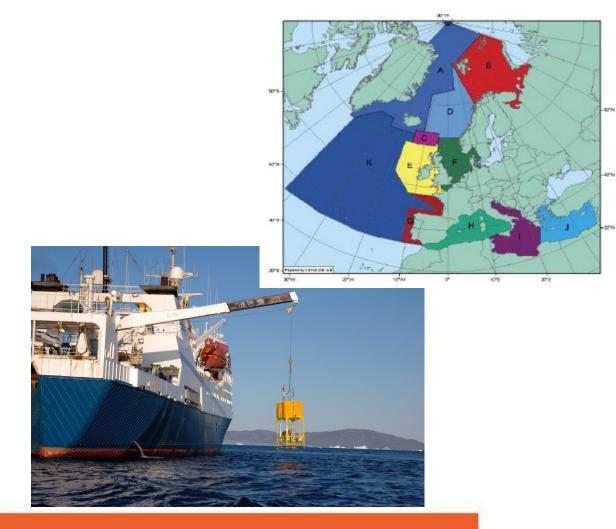


Fig. © C.Zimmermann, Thünen Inst., Germany



OBSERVING SYSTEMS

...another core area of ICES competence. **Annually more** than 100 research vessel surveys, equalling more than 1200 days at sea, are coordinated by **ICES to ensure** best use of resources, and to cover as broad a geographic area as possible.





DATA and ACCESS TO DATA

ICES has a well-established Data Centre, which manages a number of large and long-time datasets under a clear open-access data policy.

There are...

- Fisheries data (e.g. fish abundance and distribution, catch data, growth)
- Data on **phycisal oceanography** (e.g. temp., salinity, oxygen, currents, chemical compositions, pollutants)
- Marine Microbial Data (Plankton) data
- **Ecological data** (predator prey data, invasive species, diseases etc.)

The ICES Data Centre could play an important role in developing standard formats and could act as a data repository for projects on transatlantic cooperation as for projects under, *e.g.*, Horizon 2020 as ICES is already a repository for the FP6 projects.



TRAINING

ICES has an established training programme that could be used to promote skill development on trans-Atlantic research priorities. Work is on-going, with a pilot case for Danish Universities, to secure accreditation.



In support of cooperation



Fig. © Thünen Inst., Germany



ICES Training Programme

Since 2009, over 30 courses have been offered on a wide diversity of topics, including: stock assessment (introductory and advanced), ecosystem modelling, model building, management strategy evaluation, Bayesian inference, fisheries advice, trawl survey design and evaluation, integrated ecosystem assessment, analysing and visualization of Vessel Monitoring Systems, communication of science and advice, and how to lead an effective technical meeting.

The courses have been provided also to stakeholders,

policy-makers, and **clients** to explain the science behind the advisory process.

Almost **1000 participants** have attended ICES courses from over 30 countries with lecturers from both sides of the Atlantic.



Building Capacity; Up-skilling Scientists; Quality Assurance; Common Understanding; Outreach; New Perspectives;



ICES - Cooperation in practice



More information <u>www.ices.dk</u>

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