Invited Speakers

"The ICES Report on Ocean Climate: variability in the ICES region". Sarah Hughes (Marine Scotland, UK) representing the ICES Working Group on Oceanic Hydrography

"Climate variability in the North Atlantic, causes and consequences". Peter Rhines (University of Washington, USA)

"Plankton variability in the ICES area". Peter Wiebe, (Woods Hole Oceanographic Institute, USA)

"Variability in fish production and the environment". Manuel Barange (Plymouth Marine Laboratory, UK)

"Ecosystem variability, preparing an integrated assessment of the North Sea". Andrew Kenny (Centre for Environment, Fisheries and Aquaculture Science, UK)

Timetable

15 September 2010 – Registration opens for abstracts
15 January 2011 – Deadline for submission of abstracts
15 February 2011 – Notification of abstract acceptance
31 March 2011 – Deadline for early registration
10 –12 May 2011 – Symposium
27 May 2011 – Deadline for submission of manuscripts for the *ICES Journal of Marine Science*

Guests of honour

As with the previous decadal symposia, we will honour retired scientists with long affiliations with ICES and NAFO, who have contributed to the maintenance and interpretation of time-series over recent years. The selected honorees for 2000–2009 are:

- Dr R. Allyn Clarke, Canada
- Dr R. R. (Bob) Dickson, UK
- Catherine Maillard, France
- Dr Jens Meincke, Germany
- Dr Tom Rossby, USA
- Manfred Stein, Germany

Associated events

A local reception will be hosted by the Mayor of Santander at the Magdalena Palace on the first evening of the symposium.

A conference dinner, to celebrate the work of our Guests of Honour will be held on the second evening (€ 50, bookable at time of registration).

Registration fee

The early registration fee will be € 200. The deadline for early registration is 31 March 2011, after which the fee will increase to € 250. A reduced registration fee may be available to students.

Organizers

Scientific steering committee
Einar Svendsen (ICES chair), Bert Rudels (ICES chair), Steve Cadrin (NAFO chair)

Ken Drinkwater, Ross Hendry, Agnieszka Beszczynska-Möller, H. M. van Aken, Toby Sherwin, Victor Valencia, Luis Valdés, Eugene Colbourne, Harald Loeng, Benjamin Planque, Anna Akimova, Bill Turrell, Peter Wiebe, and Adi Kellermann

Organizing committee
Sarah Hughes, Alicia Lavin (Convenor and Local Organiser), Glenn Nolan, Hedinn Valdimarsson, and Stephen Dye

Local committee
Alicia Lavín, Pablo Abaunza, Francisco Velasco, Victoria Ortiz de Zárate, Jose Luis Arteche, Iñigo Losada, and José Manuel Gutiérrez

www.decadalsymposium.org

Conference Secretariat

ICES Secretariat
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Local Host

Venue: Palace of Congress, Santander, Spain
Palacio de Exposiciones y Congresos de Santander
www.palacioexposiciones.com

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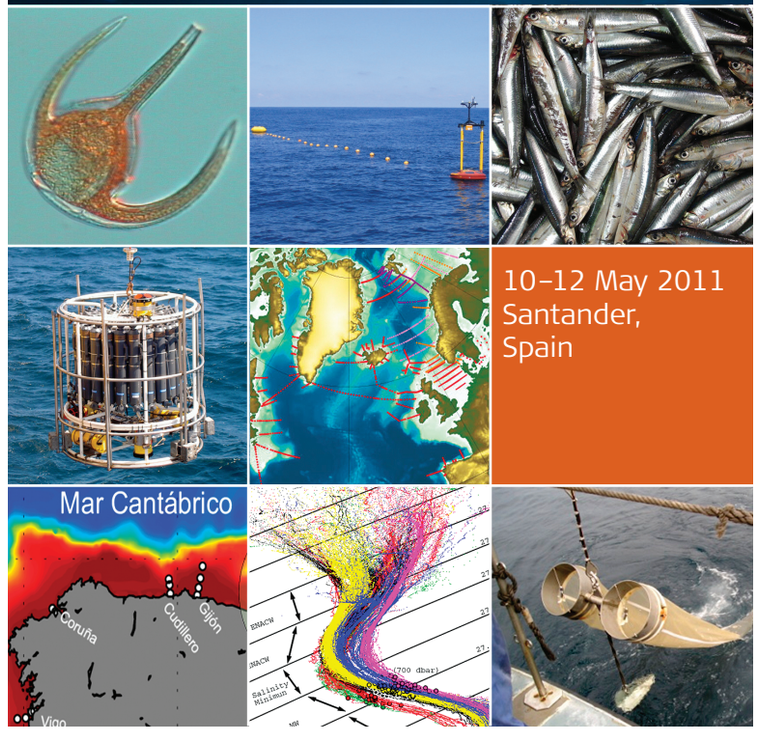
ICES/NAFO Symposium on the Variability of the North Atlantic and its Marine Ecosystems during 2000–2009



10–12 May 2011
Santander, Spain

NAFO Decadal symposium 2000-2009 ICES

www.decadalsymposium.org

Key challenge of the symposium

To summarize and understand the hydrobiological variability observed during the decade 2000–2009 in relation to longer time variability or climate change, and to quantify the interactions between the variability of climate, ocean environment, plankton, fish, mammals, and seabirds in the North Atlantic marine ecosystems.

The extreme variations in physical factors in northern waters (e.g. light, temperature, and ice cover) that occur over seasonal, interannual, and longer time-scales, cause major fluctuations at all trophic levels – there is no such thing as "ecological balance".

Owing to the complexity of the problem, exploring and quantifying the interaction between natural and anthropogenic drivers probably needs a multilayered approach, using sustained multidisciplinary observations in combination with extensive use of mathematical models.

Background

The North Atlantic has experienced significant changes during the past decade. The upper ocean has warmed, particularly in the temperate and Arctic–boreal regions, and there have been major biogeographic shifts and changes in the phenology of the biota that appear related to the physical changes. These climate-driven changes in the North Atlantic ecosystem need to be understood at a fundamental level to anticipate future changes and to allow effective ecosystem-based management of ocean resources.

Knowledge of ecosystem dynamics is required to properly evaluate ecosystem status and predict the impact of fishing and other anthropogenic stresses on the marine foodweb. There are many opinions about what an ecosystem approach means. We choose to define it as: identifying the most important driving forces on the marine ecosystem and the critical processes within the ecosystem, and determine how they interact. Although many processes are involved, the two main driving forces on most ecosystems in the northern North Atlantic are climate and fishing. In coastal areas, eutrophication, pollution, introduction of new species, or habitat disturbance may also be important drivers.

A fundamental challenge is to determine the interaction between large natural variations (most often driven by climate variability) and the impact of man. A major issue in marine ecology is to understand how foodwebs are regulated by their environment and affected by human interference.

Outcome

Selected papers from the symposium will be included in a special issue of the *ICES Journal of Marine Science*. The symposium and subsequent publication will together form an overview of the hydrobiological variability of the North Atlantic during the first decade of the 21st century. The symposium will also be an important cross-disciplinary event, resulting in a better understanding and an improved ability to quantify the direct and indirect effect of climate variability on the functioning of marine ecosystems, which are essential to succeeding with the ecosystem approach to management.

History

This symposium follows in the footsteps of a number of earlier decadal symposia organized by ICES and NAFO.

This symposium will be the third in a series of decadal symposia organized by ICES, the first (1980–1989) was held in Mariehamn, Finland in 1991, and the second (1990–1999) was held in Edinburgh in 2001.

NAFO has also organized a series of symposia focused on decadal reviews of environmental conditions in the Northwest Atlantic and their influence on fish stocks. The first, when NAFO was called the International Commission for the Northwest Atlantic Fisheries (ICNAF), was held in Rome in 1964, and described the decade 1950–1959. Following three further symposia, the decade of 1991–2000 was reviewed at the NAFO science conference held in 2002.

Scientific programme

The symposium will run as a single multidisciplinary session organized by science area or on a regional basis, as appropriate. Submissions that describe, explore, and/or interpret observational time-series in all disciplines (physical, chemical, and biological) and areas of the North Atlantic (open ocean, shelf sea, and coastal waters) during the decade 2000–2009 are encouraged. This also includes new analyses and modelling approaches.

The science programme will provide excellent opportunities to catch up with the latest observations of variability at all trophic levels; from the ocean climate/physics, through plankton to fish stocks, marine mammals, and seabirds. It will provide new insight into the importance of climate in regulating marine ecosystems of the North Atlantic compared with other drivers of variability.

The keynote talks will introduce each trophic level by describing the long-term and wide-scale patterns of variability and, where appropriate, our current understanding of the key drivers. This can then be used to put the information presented in specific talks into a wider spatial and temporal context.