# **ICES SGNARO Report 2006**

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# Report of the Steering Group for the ICES/GLOBEC North Atlantic Programme and Regional Office (SGNARO)

By correspondence

# International Council for the Exploration of the Sea Conseil International pour l'Exploration de la Mer

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# **Executive Summary**

SGNARO has helped to guide the work of the ICES/GLOBEC North Atlantic Regional Programme and Project Office in three main ways in 2006:

- 1) by acting on the views of funders and participants to adjust the programme and the workplan of the Project Office;
- 2) by assisting with funding sources;
- 3) by altering the timing and direction of the synthesis activities in order to strengthen the application-oriented phase of the programme.

Following a decision by the Bureau in June 2006, the coordinator will report twice annually to the Consultative Committee as well as to the Bureau and the SGNARO will no longer be needed to review and advise on the Programme and the Project Office. However the open meetings at the Annual Science Conference will continue as a forum at which participants can put forward their views about the ICES/GLOBEC programme. Funding agencies can also make their views know here, or directly to the coordinator or the General Secretary.

## 1 Introduction

The international GLOBEC programme, which will end in 2009, remains very active, with national and regional components undertaking fieldwork, analysis and publication (see www.globec.org). The Cod and Climate Change (CCC) programme, which is the main component of the ICES/GLOBEC North Atlantic programme, has completed a number of synthesis activities, including:

- the ICES Symposium on "Influence of Climate Change on North Atlantic Fish Stocks", which took place in May 2004 and was published in October 2005 as a special volume (62:7) of the ICES Journal of Marine Science.
- ICES Cooperative Research Report 274 on "Spawning and Life History Information for North Atlantic Cod Stocks", which appeared in spring 2005.
- The Theme Session on "Cod in a Changing Climate" at the 2005 ASC, which included presentations on 11 chapters from the book being prepared for publication. and has begun a new series of workshops and related activities in fulfilment of the action plan set out for the remaining three years.

The ICES/GLOBEC office helps to coordinate and facilitate many of the GLOBEC related activities within ICES, including national programmes. The co-ordinator transmits new science, experience and results from GLOBEC within ICES and beyond, by means of participation in ICES Working and Study Groups, a Newsletter, the website, lectures and a number of writing, programme, steering and review activities. Details of these activities are shown in Annex 1.

Funding for 2006 has been provided by Denmark (28%), France (24%), UK (36%) and Norway (13%). The total is below the amount required for full funding and the budget is balanced by reducing the salary of the coordinator, who also receives part of his salary from a closely related EU project (the FishACE Research Training Network).

GLOBEC is the main internationally coordinated programme through which marine ecosystem research is currently being funded in the North Atlantic. ICES benefits from attracting scientists working on nationally and regionally funded GLOBEC programmes to its Working Groups, workshops, Theme Sessions and Symposia. The cooperation adds value to both ICES and GLOBEC and helps to maintain the focus of GLOBEC on application in relation to fisheries and marine environmental management.

The Terms of Reference for SGNARO are given in Annex 2.

## 2 Strategic goals

The Strategic Goals for the International GLOBEC are contained in the GLOBEC Science Plan and the Implementation Plan sets out the means of achieving them (http://web.pml.ac.uk/globec/products/reports/ImpPlan/implanconts.htm).

The ICES/GLOBEC Cod and Climate Change programme is the North Atlantic regional component of the Plan.

## 3 Review of programme and workplan

An open meeting took place on 23 September 2005 during the ICES ASC in Aberdeen to review the programme and workplan. Ken Drinkwater, the Co-Chair of SGNARO opened the meeting and welcomed the participants. The meeting proposed the following additions to the work programme for 2006:

- Coordinator to attend the GLOBEC SSC in April 2006. Geir Ottersen Ottersen has been a member and may be a replaced from the CCC community (in fact Svein Sundby is now a member). It was felt to be desirable that the coordinator should attend, to strengthen working ties, particularly with the small pelagics (SPACC) programme.
- 2) A draft plan is to be matured for work on small pelagic species. There was some discussion over the inclusion of capelin, sandeels, herring and mackerel within this grouping.
- 3) As a follow-up on 2), the coordinator should assist with and attend the Workshop on Environmental Effects on Fisheries in SW ICES waters in November 2006.

The ICES Bureau approved the work plan and reports on progress submitted to it in January and June 2006 (Annex 1) and endorsed the initiatives being undertaken to secure future funding for the continuation of the ICES/GLOBEC office.

# 4 Future direction and scope of the Programme

The Bureau discussed the future direction of the ICES/GLOBEC programme. It was decided that the coordinator should report twice a year to the Consultative Committee in order to bring the work within GLOBEC to the attention of the Advisory and Science Committee chairs. The coordinator will also continue to report twice a year to the Bureau and this regular reporting and steering makes SGNARO (which was set up by the Bureau) unnecessary. However, the open meetings at the ASC were seen as valuable and will continue to be the forum in which funding agencies, international GLOBEC and interested scientists within ICES put forward their views and suggestions about the ICES/GLOBEC programme. The funding agencies can (and do) deal directly with the General Secretary. The Bureau regards application of science from GLOBEC (and similar programmes) in the advisory process as a priority.

The Consultative Committee wished to see more activity which applied results from the GLOBEC programme to the advisory work of ICES and the coordinator was tasked to prepare an Action Plan to be presented to the Consultative Committee in September 2006, outlining how this would be achieved. The coordinator corresponded with the chairs of the Advisory Committees and with Jake Rice about how he could support ongoing efforts to make greater use of environmental and ecosystem information in the advisory process. The possible reorganisation of the ICES Advisory structure is a major consideration in how to frame an Action Plan and further correspondence and consultation will be needed.

Three specific suggestions which will be acted on are:

- 1) The Cod and Climate Change Working Group have put forward a Resolution that a Workshop on Application of Environmental Information in Fisheries Management should take place in 2007, one year in advance of its original planned date. This will follow up on the specific applications which have been identified during previous work, including the workshop on Decline and Recovery of Cod Stocks (ICES CM 2006/OCC:12). The coordinator will work to establish and support this workshop, which will also include work on small pelagic species and will work to involve colleagues in ICES assessment working groups.
- 2) The coordinator will participate in the workshop on Environmental effects on fisheries in SW ICES waters in November 2006 and will also support other work on small pelagic species.
- 3) The Cod and Climate Change Working Group suggested that the coordinator should explore the possibility of assisting with the assessment of North Sea cod, because there is substantial evidence that the stock is being affected by climate and ecosystem change, which has already received much attention within the Cod and Climate Change programme.

# 5 Strategy for funding

The direct costs of the Regional Office are currently provided by the UK, Denmark, France and Norway. The DEFRA (UK) funding runs to 31 December 2009. Norwegian funding currently runs to the end of 2007. The contracts with Denmark and France are subject to annual renewal, with the prospect of further support for specific parts of the work plan. The EU contract for the Marie Curie Network runs to 2009.

A flyer soliciting suggestions for funding sources to which a proposal can be submitted has been prepared and will be circulated to ICES Delegates and Committee Chairs prior to the 2006 ASC.

# Annex 1: Reports presented to the ICES Bureau in 2006

## Progress in 2005

The programme office remains less than fully funded since North American contributions ended in 2004. It is difficult to identify funding organisations (e.g. national research councils) to which an application for an international project office such as this can be made and help from ICES Delegates would be welcome. Funding for the Marie Curie Network - FishACE began in May 2005 for the next four years. A new contract with DEFRA (UK) has been signed for the period from 2006 – end of 2009.

Results and knowledge gained from the Cod and Climate Change programme are now being presented and applied extensively by scientists whose work is not funded from the programme office budget, as well as by the coordinator. Details of the work carried out by the coordinator during 2005 are given in the table below in relation to the workplan presented to the Bureau in January 2005.

#### Tasks and targets for 2005

Task 1 Implementing the Cod and Climate Change work programme, in fulfilment of the contracts and commitments made with funding bodies. (60% of KB's time)

TARGETS AND MILESTONES:	Progress
Assist with the work of the Cod and Climate Change Working Group 10 days - report due in June 2005.	ICES CM 2005/C:11
Prepare for and take part in the Workshop on Impact of Zooplankton on Cod 25 days.	ICES CM 2005/C:08
Coordinating, writing and editing a book synthesising results from the Cod and Climate Change programme.	Falling behind schaedule due to late submission of drafts and heavy workload
Compilation of new information on cod life histories, to update Coop. Res. Rep.205	CRR 274 published in June 2005
Maintain regular ICES/GLOBEC Newsletter and pages on the WWW	Newsletter 11 published September 2005. Website extensively updated and expanded. Problems with web-based reference database
Establish the Fisheries Induced Adaptive Change Network	Funding began May 2005. First meeting in July 2005
Prepare and present paper at ESSAS Symposium in May 2005	Paper presented and on website
IPCC author meetings in March 2005. Preparing 1 <sup>st</sup> draft on fisheries.	Attended meeting and wrote material for three chapters. Consultations with FAO and others on major issues.
Presentation on Fisheries and Climate at Biodiversity Conference, Paris January 2005	Paper presented and on website
Theme Session on Cod and Climate Change at ASC	Done – successful session held

Task 2 Writing proposals for continued funding, preparing reports and accounts, dealing with ad hoc requests for data and information, evaluating papers and research proposals (40% of KB's time)

TARGETS AND MILESTONES:	Progress
Proposals for new or renewed funding	Successful proposal to DEFRA
Deal with ad hoc requests for data and information	Ongoing and increasing task.
Steering and review for UK GLOBEC, German GLOBEC, French GLOBEC, Norwegian Research Council. Talks on North Atlantic GLOBEC programme.	Final UK Marine Productivity SSC, Cambridge, April. Attended French GLOBEC related SSC in Sete in November
Developing new aspects of the ICES/GLOBEC programme e.g. on small pelagic fish	New role discussed at ASC – outline in 2006 workplan.

In addition to the above agreed targets, the coordinator set up a website for the ICES Regional Assessment Group for the North Sea (REGNS) and prepared datasets and analysis for the workshop in May 2005. He liaised with colleagues in Canada and the US over methodology for integrated ecosystem assessments, presented the results at the REGNS workshop and incorporated their analysis into the report. The funding proposal (Specific Support Action) by REGNS submitted to the EU, which included funding for Keith Brander, was not successful.

Keith Brander gave talks on "Climate change and fish distribution in the North Sea" and on "Long term plankton monitoring for marine management" at a North Sea Commission Conference in March 2005 and on "Marine biodiversity is affected by climate change and fishing" at the Green Week organised by DG Environment June 2005. He chaired his final council meeting as President of SAHFOS in April 2005 after a six year period.

#### **Publications in 2005**

Brander K.M. (2005) Cod recruitment is more strongly affected by climate when stock biomass is low. ICES J. mar. Sci. 62: 339-343

Brander, K. M. (2005) (ed.) Spawning and Life History Information for North Atlantic Cod Stocks. ICES Coop.Res.Rep. 274:150pp.

Brander , K.M. (accepted for IJMS) The role of growth changes in the decline and recovery of North Atlantic cod stocks since 1970

All presentations by the coordinator can be downloaded from the ICES/GLOBEC website.

#### **Budget status in January 2006**

The budget for 2006 is now in place (see below). One remaining outstanding contract is expected shortly (from IFREMER). The total income (~DKK 725,000) is sufficient to cover roughly 70% of the full salary. Part of the Coordinators time will be paid from the EU Marie Curie Research Training Network (on Fisheries Induced Adaptive Change) which has a separated budget (with a positive balance of over DKK 300,000).

The expected funding for 2007 will be somewhat lower and depends on two of the existing contracts (with DIFRES and IFREMER) being renewed. New funding sources are being urgently investigated for 2007 and subsequent years and any information about funding bodies which may be prepared to consider a proposal would be welcome.

ALL IN DKK:	2006	2007
INCOME:		
From Denmark	200,000	200,000
From France	170,548	170,548
From UK	260,991	200,000
From Norway	93,158	93,158
Total Income	724,697	663,706
EXPENDITURE		
Salary	489,801	
Pension	146,940	
T&S	50,000	
Insurance	1,405	
Other expenses	567	
Total Expenses	688,713	
BALANCE	35,983	

#### Synthesis and application of knowledge gained from the programme

The ICES/GLOBEC programme is in a synthesis stage, and has produced a Symposium volume and a Cooperative Research Report (#274) during the past year. Next year will see the publication of a book on Cod in a Changing Climate and continuing cooperation with fisheries and marine ecosystem assessment activities in order to ensure that new scientific knowledge is fully utilised. There are also new initiatives on small pelagic species, particularly in Iberian waters.

The GLOBEC programme as a whole is concerned with "understanding how Global Change will affect the abundance, diversity and productivity of marine populations". Such understanding is frequently sought in relation to policy making on the issues of climate change, biodiversity and ecosystem management. Many of the scientists involved in national and regional GLOBEC programmes (including CCC) contribute to reports and presentations on these subjects, but because their work is generally funded from other sources, it is difficult to claim GLOBEC ownership. However the ICES/GLOBEC coordinator has been involved in a number of recent activities which illustrate the scope of the applications. These include:

- The Arctic Climate Impact Assessment (<a href="http://www.acia.uaf.edu/">http://www.acia.uaf.edu/</a>) The chapter on Marine Systems included three CCC members among its ten authors;
- Lead author on fisheries for the IPCC Fourth Assessment Report. The final report will be published in 2007;
- Chapter on Climate Change and Fisheries for the German Advisory Council on Global Change. A rewritten version of this will shortly be submitted for publication in Fish and Fisheries;
- Paper on "Climate change and fisheries management" given at International Conference on "Biodiversity: Science and Governance" convened by President Chirac (Jan 2005) and for the EU Green Week in Brussels (June 2005);
- Talks on monitoring and on biodiversity for the North Sea Commission (Ringkøbing Feb 2005);
- Representing GLOBEC at the ICES Regional Ecosystem Group for the North Sea and co-convening ICES Theme Session in September 2006;

Recent papers on climate impacts on cod are listed below. Work on the impacts of fishing and climate on biodiversity is taking a more prominent role and will be boosted by the appointment of a post-doctoral fellow later this year, for a two year period.

#### **Recent papers**

Leif Christian Stige, Geir Ottersen, Keith Brander, Kung-Sik Chan, Nils Chr. Stenseth (accepted) Cod and climate: effect of the North Atlantic Oscillation on recruitment in the North Atlantic Marine Ecology Progress Series.

#### Workplan tasks and targets for 2006 (as agreed by the Bureau in Jan 2006)

Task 1 Implementing the Cod and Climate Change work programme, in fulfilment of the contracts and commitments made with funding bodies. (60% of KB's time)

#### **Targets and milestones**

- 1 ) Assist with the work of the Cod and Climate Change Working Group. Attend the meeting and assist with report due on 31 May 2006. 10 days
- 2) Prepare for and take part in the Workshop on the Decline and Recovery of Cod Stocks throughout the North Atlantic including tropho-dynamic effects 9-12 May 2006. Assist with report and publication 25 days.
- 3) Coordinating, writing and editing the book synthesising results from the Cod and Climate Change programme. open ended time requirement.

- 4) Assist with publication of the report of the Workshop on Impact of Zooplankton on Cod Abundance and Production as a CRR 10 days
- 5) Prepare for and take part in the ICES/GLOBEC Workshop on Long-term Variability in SW Europe 20-24 November 2006. Assist with report and publication 15 days
- 6) Maintain regular ICES/GLOBEC Newsletter and pages on the WWW. 10 days
- 7) Establish and oversee the new post-doctoral post in the Fisheries Induced Adaptive Change Network. The holder will work on management implications and development of advice under the precautionary approach 20 days
- 8 ) Attend author meetings in January, March and September and prepare  $2^{nd}$  draft of IPCC WG2 report 25 days
- 9) Assist with aspects of the EU UNCOVER (mechanisms of stock recovery) programme  $10 \; days$
- 10 ) Preparing for and convening Theme Session on Integrated assessments in support of regional seas ecosystem advice beyond Quality Status reporting at ASC. 10 days
- Task 2 Writing proposals for continued funding, preparing reports and accounts, dealing with ad hoc requests for data and information, evaluating papers and research proposals (40% of KB's time)

#### **Targets and Milestones:**

- 1) Proposals for new or renewed funding 10 days
- 2) Deal with ad hoc requests for data, information, reviews 10 days
- 3) Steering and review for GLOBEC related programmes, including SSC meeting in Hawaii (April). Present talks on North Atlantic GLOBEC programme. 15 days
- 4) Give seminars in Oslo, Canterbury, DEFRA (London), Arhus 5 days

# Annex 2: Terms of Reference for the Steering Group (SGNARO)

# 2005/2/OCC14 The Steering Group for the ICES/GLOBEC North Atlantic Programme and Regional Office [SGNARO] (Co-Chairs: K. Drinkwater, Norway, and F. Köster, Denmark) will work by correspondence in 2006, and meet as appropriate at national expense, to:

- a) review and advise on the further evolution of the ICES/GLOBEC North Atlantic Programme and the workplan of the ICES/GLOBEC office, taking into account:
  - i) the strategic goals for ICES/GLOBEC research and the strategic approach for the ICES/GLOBEC office as agreed by the Council,
  - ii) developments in the international GLOBEC programme, and
  - iii) available funding;
- b) review and advise on the action plan of the Working Group on Cod and Climate Change.

SGNARO will report by 31 May 2006 for the attention of the Oceanography Committee and the Bureau.