

# ICES EWPPCC REPORT 2010

SCICOM STEERING GROUP ON ECOSYSTEM FUNCTIONS

ICES CM 2010/SSGEF:02

REF. SSICC, SCICOM

## Report of the Editorial Workshop for the Position Paper on Climate Change (EWPPCC)

25–27 January 2010

ICES Headquarters, Copenhagen, Denmark



**ICES**

International Council for  
the Exploration of the Sea

**CIEM**

Conseil International pour  
l'Exploration de la Mer

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## **Executive summary**

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The Editorial Workshop for the Position Paper on Climate Change Science (EWPPCC), with Philip C. Reid, UK as chair, met at the ICES Headquarters, Copenhagen, Denmark on 25 to 27 January 2010. In total 20 participants contributed to the workshop from Belgium, Canada, England, France, Germany, Iceland, Ireland, Norway, United Kingdom and the USA.

The Terms of Reference and rationale for the expert group are contained in C.Res. 2009/2/SSGEF:02. The Position Paper will compile and represent a synthesis of the most recent scientific work on the main aspects of climate change effects on marine processes and ecosystems in the North Atlantic.

The meeting alternated between plenary and drafting group sessions, with small groups at times working on individual chapters. The report is divided into two main sections, one that outlines technical issues on the chapter format and the other that summarises the progress made on each chapter by the end of the workshop. The structure, publication and guidelines for the report were agreed and ways of highlighting the past and future role of ICES in climate change science as well as using the ICES data bank addressed. The geographical area to be covered will include the North Atlantic up to the North Pole and the Baltic Sea. A Foreword and 12 chapters were worked on over the three days of the meeting, plans made for the final Conclusions chapter and a timetable agreed to meet the need for publication prior to the Annual Science Meeting (subsequently revised for the end of 2010).

## 1 Opening of the meeting

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The Editorial Workshop for the Position Paper on Climate Change Science (EWPPCC) (Chair: Philip C. Reid, UK) met at the ICES Headquarters, Copenhagen, Denmark on 25–27 January 2010.

The Chair, Philip C. Reid, welcomed participants (Annex 1) to the workshop and the ICES HQ, outlined the ToRs and rationale for the meeting (Annex 2) and the proposed format of the workshop as per the attached agenda (Annex 3). Penny Holliday, Nova Mieszkowska and Jürgen Alheit were elected respectively as chairs of the three drafting groups addressing:

- A: Chapters 2, 3, 4,
- B: Chapters 5, 6, 7, 8, 11
- C: Chapters 9, 10, 12.

Maria Lifentseva briefed the participants on the meeting facilities and IT issues.

## 2 Adoption of the agenda

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The agenda attached as Annex 3 was adopted. The Chair emphasised that the primary aim of the workshop was to produce high quality chapters for the Climate Change Position Paper. A flexible approach to the agenda and working procedures was followed, allowing as much time as possible for drafting. The meeting alternated between plenary and drafting group sessions, breaking into smaller sub-groups as necessary to work on individual chapters.

## 3 General discussion on the report

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A number of bulleted issues were identified for consideration under this heading and were discussed in plenary at various stages during the three days of the workshop. Brief summaries of agreed issues are outlined under the headings below.

### Authorship

Individual chapters will be “authored by the people involved” with for the whole report “citation only of the editors, Philip C. Reid, Luis Valdés and Jürgen Alheit”).

### Introduction

Draft text has been produced by Luis Valdés. It was agreed that the offer of text that provided a synthesis of COP15 was not appropriate for the report, but could be used by SSICC.

### Chapter headings

Brief discussion on numbering formats and contents of the chapters. Agreed that the Chair and Penny Holliday discuss this item and that the Chair should prepare and circulate a ‘Guide for authors’ subsequent to the meeting (circulated to participants on 7 February) .

### ICES regions, trophic relationships, regime shifts

How to incorporate information on different ICES regions: it was agreed that this should be addressed thematically, as for abundance and community structure in the

plankton chapter, rather than regionally and that reference to regions should work round the ICES area anticlockwise as in the benthos chapter.

#### **How to use and make the ICES data bank more visible**

To address this request to the workshop it was agreed that ICES data and figures should be used as widely as possible in the report. The ICES data centre will be asked for help in the production of specific figures. Luis Valdés presented a set of maps that could be used for the back of the report that show sampling within ICES programmes for temperature and salinity at fixed stations and from mobile platforms, for different periods since the beginning of the 20<sup>th</sup> century.

On day 3 of the workshop the ICES Data Manager, Neil Holdsworth addressed the meeting outlining the structure of holdings in the ICES database. Besides hydrographic measurements databases for biology, contaminants and fish trawl are included in the ICES data warehouse.

A new online system 'EcoSystem Data' provides an interface to the different databases: [http://ecosystemdata.ices.dk/?WT.mc\\_id=DCENews\\_Jan\\_2010](http://ecosystemdata.ices.dk/?WT.mc_id=DCENews_Jan_2010). It was agreed that the report should include text on the database to encourage use of the data and advertise the availability of the ICES data holdings.

#### **Page length**

The report will aim for 15 to 20 submitted pages per chapter to make 150–225 written pages, including illustrations.

#### **Audience**

It was agreed that the report should be targeted towards the scientific community, including non-scientist specialists and that the language should not be too scientific.

#### **Publication format**

The participants agreed that the ICES Cooperative Research Report series was a suitable location for the publication of the Position Paper. However, formatting should be more flexible and it was recommended that the use of a designer should be used if possible.

#### **Authors guidelines**

Guidelines from the ICES Executive Editor have been circulated to chapter authors.

#### **Guidelines for publication of the report**

The ICES Executive Editor gave a short presentation on his role: to guide and work with authors and to make the Position Paper consistent with other ICES publications and offered advice on how to prepare the document. He emphasised the need to ensure that each chapter tells a story and that the key messages should be easily understood and summarised in the first five paragraphs. The report should identify past historical work by ICES on climate change as well as addressing key issues for future work.

#### **Figures and illustrations**

Need to support text using striking and appropriate figures. Use as many figures as possible to help the reader to understand the story. Use the facilities of the ICES database, especially for hydrography. Plan for 1 to 2 figures per page (including good photographs) at a scale of at least 300 DPI. Can use either JPEG, TIF or PNG. The

Chair asked the group to start identifying photographs now and obtain copyright permissions ASAP.

### Spelling

European English spelling as per the Oxford dictionary. Editor needs to obtain Oxford spellchecker.

### References - Use of Endnote

Agreed that references would be formatted and exchanged in Endnote format. The Editor to look into the possibility of setting up an Endnote library.

### Timetable

As adopted on day 3

<b>PGCC ICES POSITION PAPER ON CLIMATE CHANGE SCIENCE, DRAFT TIMETABLE 2009-2010</b>	
ASC Theme Session contributions (C D E F G), drafts by	31 October 2009
Two thematic workshops (socio-economy, modelling)	November 2009
Editorial workshop (3 days), back-to-back with PGCC, before	31 January 2010
Draft 1 completed by the end of January	31 January 2010
Draft 2 completed and ideas on gaps etc sent to Harald Loeng by	20 February 2010
Draft manuscripts to Expert Groups by	1 March 2010
External review on draft 2 from	1 March to 1 April
Authors integrate the comments from referees and Expert groups	1 April to 1 May
Final Draft manuscripts to Executive Editor by	1 May 2010
Final Draft manuscript to SCICOM for review by	15 May 2010
Manuscript to ICES Secretariat	31 May 2010
Launch of CRR at the ASC 2010, print by	15 September

This timetable will mean that after the editorial workshop there will be some time to resolve ambiguities, cover gaps, etc. It is understood that the ICES Publications Committee will take care of peer review. A revised timetable was agreed subsequent to the meeting and is attached as Annex 4.

### Agree procedures for use of SharePoint site

Agreed that the Editor act as the manager of SharePoint site for the group. To create chapter folders. File format agreed for chapters: chpt2 hydrog 06 09 2010 (day month year).

### ICES Area

A general discussion was held on the area to be represented on a map at the beginning of the report (see Article 2 from the ICES convention below). It was agreed that the North Atlantic and the Arctic up to the North Pole be shown plus the Baltic. It was felt that there would be a need for ICES to play a role in the future in assessing the environmental conditions and the living marine resources of the Arctic. The area to be primarily addressed in the Position Paper should be north of 26°N, the location of the RAPID array that is monitoring the Atlantic Meridional Overturning Circulation. Subsequent to the meeting it has been agreed that a Mollweide equal area projection be used to portray the area (The Mediterranean, Caribbean and any other areas of sea shown on the map outside the current ICES area could be distinguished by shading.) The map might also include ICES Ecoregions. Current coverage of sampling shows clear gaps in the coverage by ICES of the North Atlantic and especially



the subtropical gyre and tropical water north of the equator. Noted the potential for capacity building in African and other adjacent states.

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Convention for The International Council for the Exploration of the Sea

12 September 1964

ARTICLE 2

The Council shall be concerned with the Atlantic Ocean and its adjacent seas and primarily concerned with the North Atlantic.

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## **4 Status of current drafts by chapter**

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All the draft chapters were revised during the workshop. Some of the chapters have been amalgamated or will be presented as fact sheet annexes so that the document now comprises 11 chapters plus the annexes. To prevent confusion in the preparation of the drafts the original chapter numbers will be retained until the final drafts are produced. Summary statements on the status of each chapter at the end of the workshop follow.

### **Foreword**

A revised draft circulated by Luis Valdes. A decision needs to be made whether separate forwards should be produced for the ICES President and the new President of Science or alternatively that it be signed by the editors. Luis Valdez to write to the President to decide what route to take.

### **Chapter 1 Introduction**

A revised version was tabled by Luis Valdes. A discussion was held on the figure to include.

### **Chapter 2 Ocean/Atmosphere circulation**

Most of the text for this chapter will be edited to include as fact sheet annexes plus summaries of the carbon cycle and the biological pump as these topics are not adequately addressed in the current drafts (Possibly as a new chapter?).

### **Chapter 3 Hotspots**

Incorporated into Chapter 4. To add text on sea level rise.

### **Chapter 4 Hydrographic variability**

Emphasise why it is important and what its impact is on climate and biology. This 'chapter' is crucial to the whole Position Paper and especially the first few paragraphs. The chapter needs to introduce the physical basis of North Atlantic variability.

### **Chapter 5 Acidification**

The draft chapter needs updating in places and information on fisheries and cold water corals to be added. Need to ensure that there is no overlap with reference to acidification in other chapters.

### **Chapter 6 Chlorophyll & Production**

The lead author was not able to attend the workshop. So far the chapter has focused on biological and not biogeochemical consequences of climate change. The chapter

needs considerable revision and the removal of the regional sections, improvement of citations and reference to SAR 11 and *Prochlorococcus* etc.

#### **Chapter 7 Plankton & HAB**

HAB text added and chapter revised. The chapter needs further work and an improved introduction.

#### **Chapter 8 Benthos**

Needs improvement. Good in some detail, but lacks overarching view on relationship to climate change. Need to add section on future prognosis for the benthos under different scenarios. HAB section to be moved to Chapter 7. Need to broaden coverage of examples, which largely from Iberia.

#### **Chapter 9 Fish & Fisheries**

Text has been broadened to include information on maturation, recruitment and growth as well as comments received from scientists prior to the workshop. Fish text from chapter 10 moved to this chapter. Need for some improvement, editorial changes suggested.

#### **Chapter 10 Ecosystem sensitivity & Regime shifts**

Fish sections passed to Chapter 9, leaving two subchapters: Ecosystem sensitivity & Regime shifts. Chapter needs improvement. Jürgen Alheit up-to-date on regime shifts, assistance requested for the sensitivity subchapter – potential external contributors to be identified.

#### **Chapter 11 Non-natives**

Relationship to climate change remains obscure. Again potential external contributors to be identified to help polish the text. Needs further work.

#### **Chapter 12 Modelling**

This chapter is the product of a drafting workshop held only two weeks prior to the meeting of EWPPCC. The draft, which comprises three parts is already too long and needs to be more focused. The current structure comprises: 1. Modelling of feedbacks of the oceans on climate change, 2. Modelling from regional to global scale and 3. summaries of the workshop presentations. Downscaling, modelling at different levels from hydrodynamics to higher trophic levels and validation using the ICES databank not yet addressed. Needs further work, focussing, shortening and some exchange of text with Chapter 4. The chapter should outline what changes might be expected under various Climate Change scenarios. The chapter also needs to address how modelling can address the questions raised in the report, needs to be closely interlinked with the other chapters and emphasise the ICES contribution to this science. The title of the chapter was changed to: 'Modelling ocean climate change evolution and impacts at global to regional scales'.

#### **Chapter 13**

Conclusions, future research in climate change. This chapter of ~5 pages length will be prepared just after the workshop. Harald Loeng and Ken Drinkwater have agreed to draft the chapter. Proposed chapter headings:

- Main findings
- Important highlights from the chapters, processes etc.

- Gaps in knowledge (Prediction and risk)
- Research actions to fill gaps
- Promotion of ocean observation and modelling
- Role of ICES and suggestions on how the Council might work in the future on climate change, including the challenge of undertaking work in other areas of the ocean(s).

As a basis for the chapter leads for Chapters 1 to 11 will provide to Harald Loeng the top five conclusions from their chapters and notes to address in summary the bullets above.

## **5 Closing of the Workshop**

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The Chair thanked the participants for their hard work over the previous three days and the Secretariat for the meeting preparations. He looked forward, with the help of all contributors, to producing a high quality Position Paper for ICES that builds on the revised drafts produced during the workshop.

### Annex 1: List of participants

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## Annex 2: ToRs and Rational

2009/2/SSGEF02      The **Editorial Workshop for the Position Paper on Climate Change** (EWPPCC), chaired by Philip C. Reid\*, UK, will meet at ICES Headquarters, Copenhagen, Denmark, 25–27 January 2010 to:

- a) Ensure that the content of each contribution is well targeted to the proposal of this publication;
- b) Control the quality of the scientific content of the entire manuscript;
- c) Unify the style, identify gaps and re-write the sections when necessary;
- d) Format the manuscript according to the 'instructions to the authors' of the ICES Cooperative Research Report series in collaboration with the ICES official editor;
- e) Select the most appropriate figures to illustrate the main points and data presented in the different chapters, and when possible prepare illustrations using ICES data in collaboration with the ICES Data Bank;
- f) Consult with the members of the SSICC (meeting back to back with this workshop) on any points of conflict which need clarification or need to be completed or expanded;
- g) Edit and submit the entire manuscript to the chair of the SSICC by 25 February, who will then send it out for review by relevant EG and external scientists.

EWPPCC will report by 25 February 2010 for the attention of SSICC and SCICOM.

### Supporting information

Priority	This workshop is essential to control the quality of the scientific content of this publication that aspires to be the official ICES view on climate change. This workshop is also necessary to unify the style and to identify the points that need a clarification or should be completed or expanded. Thus the work of this group must be considered of very high priority and central to the success of the ICES position paper on climate change.
Scientific justification	<p>The ICES position paper on climate change is planned to be finished by the 2010 ASC. The list of contents have been prepared by the SSICC and now the drafting of chapters has started. The Editorial Group has to review and correct the contributions in time. It is also necessary to be aware of recent discoveries and documents published by others in order to access the best sources of information and avoid undesirable duplications in the contents with other bodies.</p> <p>The ICES data must be used as a main source of data for the ICES position paper. This will add value to the ICES data collections and their instruments to exploit the information.</p> <p>This CRR will be a valuable contribution to ICES in the topic of climate change, and must be edited and reviewed prior to publication.</p> <p>The executive summary will be written by the SSICC and it will represent the official view of ICES on climate change.</p>
Resource requirements	The group will meet at ICES HQ and it will need the usual resources and facilities as for other meetings.

Participants	<p>The participants of this Editorial Workshop will be the key contributors of the individual chapters, i.e.: the editor, some members of the expert groups, and the conveners of the Theme Sessions and Workshops. In total they will be around 20 experts.</p> <p>In the case that a conflict arises during the editorial processes, the view of SSICC will prevail.</p>
Secretariat facilities	Assistance of the Head of Science Programme, Head of Data, and Departmental Secretary.
Financial	The Workshop will be funded by the ICES SIF allocated to the SSICC. So this meeting is at ICES expense.
Linkages to other committees or groups	The product of this Editorial Workshop is relevant for the many working groups and others involved in the redaction of the different chapters.
Linkages to other organizations	Experts from other organisations such as the IOC or the ESF and international scientific programmes related with climate change (e.g. GLOBEC, IOCCP) will be invited to act as external referees.



## Annex 3: Agenda

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### Day 1: Monday, 25 January

08.30-09.00: Registration, coffee and tea

#### Plenary Session 1

09.00-09.05: Welcome to ICES HQ, IT issues, Meeting facilities - Maria Lifentseva

09.05-09.20: Introduction by Chair, Proposed format of the workshop: alternating plenary and drafting groups. Slowly rotating participants in drafting groups. Tour de Table, Election of drafting group chairs? - Philip (Chris) Reid

09.20-09.30: Adoption of the Agenda

09.30-10.00: First general discussion on the report:

- authorship: (individual chapters “authored by the people involved”, whole report “citation only the editor”).
- introduction (Include synthesis of COP15 by Claire N. Parker?).
- chapter headings
- how to incorporate information on different ICES regions, trophic relationships, regime shifts
- how to use and make the ICES data bank more visible
- page length (15-20 submitted pages per chapter to make 150–225 written pages, including illustrations).
- audience for the report (To “target the scientific community, but a little broader (non-scientist specialist). The language should not be too scientific. Guidelines from ICES Executive Editor are valid”).
- format of the report (e.g. standard Cooperative Research Report, like ICES Climate Report, other)
- authors guidelines
- guidelines for publication of the report
- status of current drafts (update on email from Luis Valdes dated 11 Dec.)
- figures and illustrations
- references. Use of Endnote.
- timetable.
- agree procedures for use of Sharepoint
- workshop report
- AOB

#### Drafting groups Session 1

10.00-11.00: Chapters 1,2,3,4 group

Chapters 5,6,7,8 group

Chapters 9,10,11,12 group

11.00-11.30: Tea/Coffee break

11.30-13.00: Chapters 1,2,3,4 group  
Chapters 5,6,7,8 group  
Chapters 9,10,11,12 group

13.00-14.00: Lunch

**Plenary Session 2**

14.00-14.20: Feedback on drafting progress by Chapters 1,2,3,4 group  
14.20-14.40: Feedback on drafting progress by Chapters 5,6,7,8 group  
14.40-15.00: Feedback on drafting progress by Chapters 9,10,11,12 group  
15.00-15.30: First drafting discussion of Chapter 13: Modelling

15.30-16.00: Tea/Coffee break

**Drafting Sub-groups Session 2**

16.00-17.30: Chapters 1,2,3,4 group  
Chapters 5,6,7,8 group  
Chapters 9,10,11,12 group

**Day 2: Tuesday, 26 January 2010**

**Plenary Session 3**

09.00-09.05: Any notices- Maria Lifentseva  
09.05-09.20: Summary of progress on day 1 and plans for day 2. Depending on progress, revision of the Agenda. Chair Chris Reid  
09.20-10.30: Second general discussion on the report, continuing to work through the bulleted points of day 1.  
10.30-11.00: Drafting discussion of Chapter 13: Modelling and any other outstanding drafting to be completed in plenary

11.00-11.30: Tea/Coffee break

**Drafting groups Session 3**

11.30-13.00: Chapters 1,2,3,4 group  
Chapters 5,6,7,8 group  
Chapters 9,10,11,12 group

13.00-14.00: Lunch

**Plenary Session 4**

14.00-14.20: Feedback on drafting progress by Chapters 1,2,3,4 group  
14.20-14.40: Feedback on drafting progress by Chapters 5,6,7,8 group

14.40-15.00: Feedback on drafting progress by Chapters 9,10,11,12 group

15.00-15.30: Identification and discussion of “gaps and topics not well addressed in the current text”.

15.30-16.00: Tea/Coffee break

#### **Drafting groups Session 4**

16.00-17.30: Chapters 1,2,3,4 group

Chapters 5,6,7,8 group

Chapters 9,10,11,12 group

### **Day 3: Wednesday, 27 January 2010**

#### **Plenary Session 5**

09.00-09.05: Any notices- Maria Lifentseva

09.05-09.20: Summary of progress on day 2 and plans for day 3. Depending on progress, revision of the Agenda. Chair Chris Reid

09.20-10.30: Third general discussion on the report, continuing to work through and finalise the bulleted points of day 1.

10.30-11.00: Complete any other outstanding drafting in plenary, including final discussions of Chapter 13 Modelling.

11.00-11.30: Tea/Coffee break

#### **Drafting groups Final Session 5**

11.30-13.00: Chapters 1,2,3,4 group

Chapters 5,6,7,8 group

Chapters 9,10,11,12 group

13.00-14.00: Lunch

#### **Plenary Session 6**

14.00-14.10: Concluding comments of Chapters 1,2,3,4 drafting group

14.10-14.20: Concluding comments of Chapters 5,6,7,8 drafting group

14.20-14.30: Feedback on drafting progress by Chapters 9,10,11,12 group

14.30-15.15: Production of draft Workshop Report

15.15-16.00: Discussion of future timetable and AOB

16.00-16.30 Tea/Coffee available

## **Annex 4: Position Paper on Climate Change - Updated Timetable**

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<b>ICES POSITION PAPER ON CLIMATE CHANGE SCIENCE, DRAFT TIMETABLE 2009-2010</b>	
ASC Theme Session contributions (C D E F G), drafts by	31 October 2009
Thematic workshop on modelled modelling	12 January 2010
Editorial workshop (3 days), back-to-back with PGCC, before	31 January 2010
Draft 1 completed by the end of January	31 January 2010
Draft 2 completed and highlights sent to Harald Loeng by	20 February 2010
Draft manuscripts to Expert Groups by	1 March 2010
External review on draft 2 from	1 April to 15 June
Authors integrate the comments from referees and Expert groups	15 June to 1 August
Final Draft manuscripts to Executive Editor by	1 August 2010
Final Draft manuscript to SCICOM for review by the ASC	15 September 2010
Manuscript to ICES Secretariat for final quality control	1 October 2010
Launch of CRR during 2010, print by	15 December