

PICES 17, Dalian, China  
FIS Meeting Agenda  
Wednesday, October 29, 2008, 16:00-19:30

*Chairman: Gordon H. Kruse (U.S.A.)*

1. Welcome of new members, introductions, and nomination of a rapporteur
2. Adoption of agenda
3. Discussion about need for a FIS vice chairman
4. Election of new FIS chairman (and vice chairman, if approved)
5. Volunteers for Award Committees for 2008
  - a. FIS Best Presentation Award
  - b. FIS Best Poster
6. FIS Chairman's Report
7. Status reports of FIS-sanctioned groups
  - a. Working Group 19 (MEQ/FIS) on *Ecosystem-based Management Science and its Application to the North Pacific*
  - b. W4: *Climate scenarios for ecosystem modeling (II)*
8. Relations with other international programs/organizations
9. Proposals for FIS topic sessions and workshops for PICES XVIII
10. Proposals for new FIS Working Groups, Study Groups and Special Projects
  - a. PICES/ICES Working Group on Forecasting Climate Change Impacts on Fish and Shellfish [WGFCCIFS]
  - b. Proposed Group Working Group on Environmental Interactions of Marine Aquaculture – EIMA
  - c. Proposed Working Group on Pacific Cod Research and Fisheries Management
  - d. Others
11. Proposals for new meetings/workshops/conferences with PICES as organizer
12. High priority projects and activities with financial/policy implications
  - a. FUTURE
  - b. North Pacific Ecosystem Status Report
13. Priority items with funding implications (meetings/workshops/conferences)
14. Proposed publications (PICES Scientific Report series and primary journals)
15. Intersessional activities and meetings, travel support requests
16. Review of FIS Action Plan
17. Other business

**DRAFT PICES Action Plan to form a work group on Environmental Interactions of Marine Aquaculture - EIMA**

Recommended Co-chairs: Ingrid Burgetz, Canada  
Katsuyuki Abo, Japan  
Kevin Amos, U.S.A.  
Edward Black, Canada

Mission Statement

Develop standard methods and tools to assess and compare the environmental interactions and characteristics of existing and planned marine aquaculture activities.

Strategy Statement

The working group should contain expertise corresponding to the three terms of reference (TORs) outlined below. Working sessions on environmental interaction models of marine aquaculture, risk assessment case studies and infectious diseases will be held at PICES annual general meetings (AGMs) and when possible, at other times as needed. A symposium (likely in the third year) will highlight models and information generated by all three TORs to evaluate environmental interactions associated with aquaculture. Final results will be reported as a PICES publication and, hopefully, also in the peer-reviewed literature. The working group will maintain contacts and linkages with PICES WG-21 on Invasive Marine Species and two ICES groups (Working Group on Environmental Interactions of Marine Aquaculture and Working Group on Pathology and Diseases of Marine Organisms).

Goals and Actions (Terms of Reference)

1. Evaluate approaches currently being used in the different PICES countries to assess and model the interactions of aquaculture operations with surrounding environments. This will involve conducting a comparative assessment of the methodologies, applications, and outputs of different approaches to assess finfish, shellfish, seaweed, and/or integrated multi-tropic aquaculture. Assessments of the approaches will include case studies of their application. As the possibilities for different types of aquaculture and their interactions to be assessed are so vast, it is suggested that a process be developed that prioritizes and limits the options. A possible process would:

- a) List types of aquaculture and identify major culture technologies and related species of highest interest to member states. Select three or four important culture technologies and associated species and assess their environmental effects and associated interactions.
- c) Review the scientific literature to ascertain if these possible interactions have been determined to be significant.

d) Identify methodologies used to predict the effects of these interactions and the history/uncertainty associated with these predictions.

e) Examine a variety of institutional decision-making models that are used to limit the effects and associated monitoring and mitigation protocols.

(Katsuyuki Abo to lead.)

2. Standardize, if considered appropriate, risk assessment methods used to assess environmental interactions of aquaculture and use case studies to compare results among countries in the PICES region. This will be achieved by holding a workshop in the second year to compare and discuss possible standardization of methodologies and the selection of potential case studies for assessment with a standardized approach. Much of the information for this exercise can be derived from “d)” in TOR 1 above. Case studies may then be developed. Responsibilities and functions will be similar to the ICES Working Group on Environmental Interactions of Mariculture (WGEIM), so holding a joint meeting with this group will be explored. (Edward Black to lead)

3. Assess methods to detect, identify, evaluate and report on infectious disease events and potential interactions between wild and farmed marine animals. If appropriate, develop a recommended standardized approach for detection/evaluation/reporting from wild and cultured populations. The focus of this activity will be on OIE-notifiable diseases and other infectious diseases of regional/economic importance. Discuss and document new and emerging infectious diseases in the PICES region, methods for their detection, and develop models to conduct risk assessments of their potential impacts on both endemic wild and farmed species. If resources are available it would be advisable to test these models by conducting risk assessments on a few (2-3) emerging pathogens. Responsibilities and functions will be similar to the ICES Working Group on Pathology and Diseases of Marine Organisms (WGPDMO), so a joint meeting will be explored. (Kevin Amos to lead)

4) As a conclusion to all the above, we propose to hold a PICES session or separate symposium in the third year to present case studies and results, and submit for publication as a PICES document, in appropriate scientific journals, and as a summary paper that examines development and application of aquaculture-environment interaction models.

Additional Potential Working group members (beyond co-chairs)

Canada – Simon Jones (3), Mark Higgins (3), Susan Bower (3), Jon Chamberlain (1), Nick Mandrak (2)  
Graham Gillespie (2), Dary O’Stucchi (1)

Japan – Toyomitsu Horii (2), Tamiji Yamamoto (1), Michio Kishi (1)

Korea – Hyun Jeong Lim (2), Oh Hyun Taik (1) Myung Ae Park (3)

Russia – Valery E. Terekhova (3), Galina S.Gavrilova (2), (Modeler?)

China - TBD – one for Risk, one modeler, one Pathologist

U.S. - Kevin Amos (3), Jim Winton (3), Lori Gustafson, (3), Mike Kent (3), Jill Rolland (3), Jack Rensel (2), Dale Kiefer (2), Mac Rawson (2), C. S. Chen (2), Wendy Hall (3), Bill Fairgrieve (1), Michael Rust (1)

NOTE: Numbers in ( ) represent term of reference most germane to this persons scientific expertise.

Draft was developed by:

Michael Rust

Toyomitsu Hori

Jon Chamberlain

Graham Gillespie

Hyun Jeong Lim

Katsuyuki Abo

With edits by Glen Jamieson, Gordon Kruse, Kevin Amos, Katsuyuki Abo, and Ed Black

**Draft PICES Action Plan to form a Working Group on Pacific Cod Research and Fisheries Management (PCRFM)**

**Title:** Population Structure, Stock Enhancement and Fisheries Management of Pacific Cod

**Proposed Parent Committee:** FIS

**Acronym:** WG - PCRFM

**Suggested Co-Chairmen:**

Woo-Seok Gwak (Republic of Korea)

Alexei Orlov (Russia)

Grant Thompson (USA)

**Background/Rationale:**

The Pacific cod is one of the most important commercial fish species caught in the North Pacific. Its geographic range spans the Yellow Sea and the northwest Pacific Ocean to the northern Bering Sea and along the northeast Pacific Ocean as far south as California. Within this region, Pacific cod primarily occupy coastal waters of most of PICES member states (Canada, USA, Russia, Japan, and Republic of Korea). In spite of its great commercial importance, the population structure of Pacific cod is not entirely clear. Moreover, present stock status, fluctuations in abundance, and causes of these fluctuations have been poorly studied across its range. In some regions cod stocks are at a low levels, prompting the need for stock recovery measures. Meanwhile, most countries fishing for cod are applying different assessment techniques and different methods to explore population structure. By bringing together experts from various fields of genetics, stock assessment, and fishery management,

the overall goal of this working group is to develop the scientific basis for the development of rational harvest strategies of Pacific cod stocks throughout their entire range.

**Proposed Terms of Reference:**

1. Assess the current methods applied by PICES member states to the study of the population structure of Pacific cod. Develop a uniform technique for genetic studies of the Pacific cod and recommend it for application by all PICES member states with a view of attaining comparable results.
2. Compare Pacific cod stock assessment techniques currently in use in PICES member states and evaluate comparability of the results obtained through the use of different methods. Generate advice, if needed, for Pacific cod stock assessments so that they could be further applied to improve the quality of research.
3. Estimate the interannual dynamics of Pacific cod abundance in various parts of the North Pacific and examine contrasting patterns in an attempt to identify potential causative factors.
4. Analyze the present status of Pacific cod stocks in various parts of its range; identify areas where poor stock condition warrant rehabilitation efforts.
5. Review the Pacific cod culturing techniques currently applied in Japan and Republic of Korea, and assess their efficiency for stock enhancement. Evaluate their applicability to Pacific cod stock recovery programs in the other parts of the range.
6. Identify research needs on Pacific cod in the PICES region. Review ongoing and define new research initiatives on Pacific cod. Identify potential high priority Pacific cod research projects that could be done cooperatively by PICES member countries.

**Suggested outputs:**

1. A symposium (most likely after termination of working group activity) summarizing the results of studies on the population structure, stock condition and fishery management of Pacific cod in PICES member countries.
2. Either a PICES Scientific Report or a collection of peer-reviewed papers describing the major outcome of the Pacific cod research conducted by the working group
3. Working group members, in addition to some other fishery scientists, will contribute to a book with a working title "Pacific cod: population structure, stock assessment and fisheries management" to be published by the American Fisheries Society involving scientists from PICES member states harvesting Pacific cod stocks.

**Potential Working Group Members:**

***Canada:*** (TBD);

***Japan:*** Yoji Narimatsu, Tetsuya Takatsu, Masaki Ito, Nobuhiro Tezuka, Tetsuhiro Funamoto

***Republic of Korea:*** Woo-Seok Gwak, Yeong Hye Kim, Sukgeun Jung

***Russia:*** Andrei Stroganov, Andrei Savin, Kim Sen Tok, Andrei Vinnikov, Pavel Kalchugin, Yuri Poltev, Alexei Orlov;

***USA:*** Michael Canino, Brenda Norcross, Lorenz Hauser, Olav Ormseth, Stew Grant, Dan Nichol.

## **SUGGESTED FORMAT FOR PROPOSED WORKSHOPS AND TOPIC SESSIONS**

The following is a suggested format for proposals for PICES Workshops and Topic Sessions.

**Title:** Give the tentative title of your proposed workshop or session

Proposal for a 1- (or 2-) day workshop preceding PICES XVIII – Jeju, Korea

Proposal for a half- (or full-) day topic session at PICES XVIII – Jeju, Korea

### **Suggested Convenors**

List the proposed co-convenors (country in parentheses) – it is important to have representation from both sides of the North Pacific

### **Rationale**

Provide a paragraph that describes the problem, background, and what is intended to be accomplished by the activity. Indicate whether you intend a publication as an outcome of the activity.

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### **Proposed Keynote Speaker(s) and Topic(s)**

Provide the name(s) of potential keynote speaker(s)

## **SUGGESTED FORMAT FOR PROPOSED WORKING GROUPS**

The following is a suggested format for proposals for PICES Working Groups.

**Title:** Give the tentative title of your proposed working group

**Proposed Parent Committees:** List the proposed parent committees, if any, in addition to FIS

**Suggested Co-chairmen:** List the proposed co-chairmen of the working group (country in parentheses) – it is important to have representation from both sides of the North Pacific

### **Rationale**



Provide a paragraph that describes the problem, background, and what is intended to be accomplished by the activity.

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**Proposed Terms of Reference**

Provide a specific numbered list of the activities to be accomplished by the working group to solve the problem that you described under "Rationale"

See the PICES website for examples of Terms of Reference for current working groups.