

1) MEQ Meeting Agenda

2) DRAFT PICES Action Plan to form a work group on Environmental Interactions of Marine Aquaculture – EIMA

MEQ Meeting Agenda

Wednesday, October 29, 2007, 16:00 – 19:30 hr, Dalian, China

Chairman: Glen S. Jamieson (Canada)

1. Welcome and introductions.
2. Approval of agenda.
3. Business from last year's Annual Meeting [Jamieson]
4. Progress report of the MEQ Section on *Ecology of harmful algal blooms in the North Pacific* [Trainer]
5. Progress report of MEQ/FIS WG 19 on *Ecosystem-based management science and its application to the North Pacific* [Jamieson]
6. Progress report of MEQ WG 21 on *Non-indigenous Aquatic Species* [Smith and Radashevsky]
7. Report on the project “*Development of the prevention system for harmful organism's expansion in the Pacific Rim*” supported by a special fund from the Government of Japan:
 - a) HAB activities [Trainer]
 - b) Invasive species activities [Smith and Radashevsky]
8. Report on inter-sessional meetings:
 - a) Inter-sessional Science Board meeting and workshop to develop a Science Plan for future integrative scientific program of PICES, April 23-25, 2008, Seattle, WA [Jamieson]
 - b) other meetings?
9. Proposals for new subsidiary bodies (e.g. Working Groups, etc.; requires Terms of Reference and list of potential members)
 - a) on *Environmental interactions of mariculture*
 - b) on *Indicators of Human Well-being: Benefits, Health*
10. Discussion of the MEQ Strategic/Action Plan
11. Discussion on the next major PICES scientific program, FUTURE: Roles for MEQ and respective member countries
12. 2007 MEQ Best Presentation and Poster Award
13. Proposals for Topic Sessions and workshops at PICES XVIII in Korea (Jeju?)
14. Suggestions for the theme for PICES XIX in the USA.
15. PICES web site – MEQ content, etc.
16. Relations with other international organizations/programs
17. Items with financial implications
 - a) Proposed inter-sessional meetings for 2009 and beyond
 - b) Proposed publications for 2008 and beyond
 - c) Travel support requests
 - d) Other items
18. Other business
19. Preparation of MEQ report and recommendations to Science Board

Note: I would like to remind everyone that Science Board will not be considering unfinished proposals for topic sessions, working groups, or meetings. The minimum requirements for topic sessions at PICES 18 (Jeju Is., Korea), which have to be discussed at our meeting, are:

1. Title
2. Duration
3. Convenors (the names listed have agreed to do this)
4. Description of session

Final DRAFT – 9/23/08

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:

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