

# REPORT OF 2004 INTER-SESSIONAL SCIENCE BOARD MEETING



The second inter-sessional Science Board meeting, with the participation of Governing Council, was held at the Hyatt Regency Hotel, Jeju, Korea, from May 6-8, 2004. The Science Board Chairman, Dr. Ian Perry, welcomed participants and thanked them for attending the meeting. He also thanked the Korean Ministry of Marine Affairs and Fisheries (MOMAF) and the Korean Ocean Research and Development Institute (KORDI) for their logistical and financial support of the meeting. Dr. Perry noted that this was the second time that members of Science Board and Governing Council have had the opportunity to meet together to discuss larger issues for PICES, in particular relating to future directions of the Organization. The participants are identified in *SB-IM Endnote 1*, and the agenda is provided in *SB-IM Endnote 2*.

## Updates from the Committees and Programs (Agenda Item 2)

### BIO Committee

The BIO Chairman, Dr. Vladimir I. Radchenko, presented his Committee's interim report (the full BIO report is included elsewhere in this Annual Report). The main items were related to nominations for the next BIO Chairman, preparations for BIO sessions at PICES XIII, problems with the participation and progress of Working Group 14 on *Effective sampling of micronekton*, updates on plans for the 2004 field study by the Advisory Panel on *Micronekton sampling inter-calibration experiment* (MIE-AP), and membership concerns with the Advisory Panel on *Marine birds and mammals* (MBM-AP; active members of this Advisory Panel are predominantly from Japan and the United States).

The issue of participation in, and effectiveness of, Working Groups was deferred to later during the meeting under the agenda item "Other business". Regarding participation in the

MBM-AP, it was recommended that BIO consider reviewing the status of this Advisory Panel and/or be more active in referring questions to the Panel for them to address. If such issues were sufficiently general, they may attract more participation. Potential interest was expressed in collaborating with the NPAFC BASIS program in the Bering Sea. In regards to additional funding to support the activities of the MIE-AP, it was suggested that the Census of Marine Life might be interested in the issue of sampling micronekton. A coordinated "Year of the Euphausiid" program to study their vital rates throughout the different environments of the North Pacific was recommended as a topic of potential interest to BIO.

### **ACTION:**

#### **Dr. Radchenko:**

- 2.BIO.1 Identify nominations for next BIO Committee Chairman;**
- 2.BIO.2 Conclude WG 14 and review report;**
- 2.BIO.3 Discuss reporting of MIE-AP field activities at PICES XIII and next steps for the Advisory Panel;**
- 2.BIO.4 Discuss status and future of MBM-AP with its Co-Chairmen, and if there is interest to continue, develop new topics and a plan of action (in particular which might attract more participation).**

### FIS Committee

The FIS Chairman, Dr. Yukimasa Ishida, presented his Committee's interim report (the full FIS report is included elsewhere in this Annual Report). The main points were related to preparations for FIS-sponsored sessions at PICES XIII, and updates on the activities of Working Group 16 on *Climate change, shifts in fish production, and fisheries management* and the joint MEQ/FIS Study Group on *Ecosystem-based management science and its application to the North Pacific* (EBM-SG).

Science Board requested that WG 16 present a draft report to FIS at PICES XIII and the final report prior to the third inter-sessional Science Board meeting (expected in spring 2005). Science Board also needs to know if publication is planned as a PICES Scientific Report or in some other format (such as a book). Regarding the EBM-SG, the Chairmen of FIS and MEQ were requested to co-ordinate a joint presentation of this Study Group at PICES XIII.

**ACTION:**

**Dr. Ishida:**

**2.FIS.1 Encourage the Co-Chairmen of WG 16 to submit a draft report to FIS at PICES XIII, and a final report to FIS in spring 2005 so that it can be approved at the third inter-sessional Science Board meeting;**

**Dr. Ishida/Dr. Stein:**

**2.FIS/MEQ.1 Co-ordinate presentation of EBM-SG at PICES XIII.**

**MEQ Committee**

The MEQ Chairman, Dr. John E. Stein, presented his Committee's interim report (the full MEQ report is included elsewhere in this Annual Report). The main points were related to nominations for the next MEQ Chairman, preparations for MEQ sessions at PICES XIII, and updates on the new *Harmful Algal Bloom* Section (HAB-S) and WG 18 on *Mariculture in the 21st century – The intersection between ecology, socio-economics and production*.

Science Board noted that Dr. Stein's term as MEQ Chairman has already been extended once, and that a new Chairman needs to be nominated. Membership in MEQ appears to be in flux, with few appointed members actually able to participate consistently. Appointing members to MEQ who are interested in the topics and able to participate consistently may require Governing Council attention.

Science Board encouraged TCODE to discuss data issues with HAB-S. Science Board also encouraged MEQ to closely support the start-up of WG 18 (co-sponsored with FIS), and further noted the need for a Chinese Co-Chairman of

this Working Group. The Chinese national delegate offered to help in this effort.

**ACTION:**

**Dr. Stein:**

**2.MEQ.1 Continue seeking nominations for MEQ Chairman;**

**2.MEQ.2 Provide frequent support to WG 18 as it starts its program;**

**Governing Council:**

**2.MEQ.3 Review membership on MEQ to determine if current national members are still appropriate, and appoint new members if necessary;**

**2.MEQ.4 Chinese national delegate will seek a Chinese Co-Chairman for WG 18.**

**POC Committee**

The POC Chairman, Dr. Kuh Kim, presented his Committee's interim report (the full POC report is included elsewhere in this Annual Report). The main points were related to preparations for PICES XIII, nominations for the next POC Chairman, and an update on the progress of WG 17 on *Biogeochemical data integration and synthesis*. No report was received from the *North Pacific Data Buoy Advisory Panel* (NPDB-AP). The POC Chairman also presented a brief report on a proposal for a CREAMS III (*Circulation Research in the East Asian Marginal Seas*) program which would add biological measurements to a previously physical oceanographic program.

Science Board suggested that POC discuss the CREAMS III proposal and, if desired, recommend to Science Board how PICES should proceed (*e.g.*, by forming an Advisory Panel to take an active facilitating role).

**ACTION:**

**Dr. K. Kim:**

**2.POC.1 Identify nominations for the next POC Chairman;**

**2.POC.2 Discuss CREAMS III proposal and recommend to Science Board how PICES should proceed.**

## TCODE

The TCODE Chairman, Dr. Igor Shevchenko, presented his Committee's interim report (the full report is included elsewhere in this Annual Report). The main points were related to nominating the next TCODE Chairman and updates on the progress of the *North Pacific Ecosystem Meta-database* (NPEMD).

Science Board recommended that TCODE discuss with HAB-S opportunities for including data on harmful algal blooms. Science Board also recommended that TCODE consider discussions with the Ocean Biogeochemical Information System (OBIS) regarding data for the North Pacific. With respect to the Ecosystem Meta-database, Science Board noted the problems that TCODE members have in representing other data agencies than their own, whereas in fact they should be able to represent data issues in their whole country. Science Board requested that members of Governing Council review the national membership of TCODE to ensure it remains appropriate. Science Board also asked China to re-confirm their members to TCODE.

### **ACTION:**

#### **Dr. Shevchenko:**

- 2.TCODE.1** Seek nominations for next TCODE Chairman or consider willingness to extend his term);
- 2.TCODE.2** Contact HAB-S Co-Chairmen regarding collaborations;
- 2.TCODE.3** Contact OBIS regarding possible interactions;

#### **Governing Council:**

- 2.TCODE.4** Review national membership on TCODE for ability to represent national data holdings;
- 2.TCODE.5** Chinese national delegate to check and re-confirm Chinese members to TCODE.

## CCCC Program

The CCCC Co-Chairman, Dr. Harold P. Batchelder, presented the interim report on behalf of the CCCC Program (the full CCCC report is included elsewhere in this Annual

Report). The main points were related to preparations for CCCC-sponsored sessions at PICES XIII, the final report of the *Nemuro Experiment Planning Team* (NEXT), plans for synthesis of the CCCC Program and its major symposium in April 2006, re-organization of the administrative structure of the CCCC Program, and possible participation by PICES with emerging ocean monitoring programs in the NE Pacific.

Science Board agreed that NEXT had completed its tasks and thanked its Chairman, Dr. Batchelder, for a job well done. It was also noted that the successful MODEL Task Team proposal funded by the Asia-Pacific Network (APN) has significant contributions to building modeling expertise among PICES nations. Science Board approved the CCCC plans for synthesis and the proposal for the symposium in 2006. Science Board also approved the proposed structural changes to the CCCC Program: (1) concluding the BASS and REX Task Teams, (2) adopting a new Task Team on *Climate Forcing and Marine Ecosystem Response* (CFAME) with terms of reference as presented in *SB-IM Endnote 3*, and (3) moving the MONITOR Task Team outside the CCCC Program to become a Technical Committee directly under Science Board with terms of reference as presented in *SB-IM Endnote 4*. Science Board asked the CCCC Co-Chairmen to thank the Co-Chairmen of BASS and REX for their service to the CCCC Program, and to nominate new Co-Chairmen and propose new members for CFAME, so that its first meeting can be held at PICES XIII. Science Board noted that as a Technical Committee, MONITOR will need a Chairman plus confirmation of its membership by Governing Council. The new Chairman will be expected to participate in all Science Board meetings.

Science Board had a brief discussion of what PICES' role should be in coordinating ocean observing systems in the NE Pacific. It was noted that discussions with the Pacific Coastal Observing System (PaCOS) are ongoing with options ranging from providing contacts to providing services such as data provision and analyses. Science Board agreed to let

MONITOR and the PICES Secretariat continue discussions with PaCOS, and to consider ways that PICES might also facilitate such interactions in the western Pacific (that do not overlap with existing projects such as NEAR-GOOS).

**ACTION:**

**Dr. Batchelder/Dr. S.Kim:**

- 2.CCCC.1 Thank Co-Chairmen and members of BASS and REX Task Teams for their service, and these Task Teams to be completed;**
- 2.CCCC.2 Form CFAME Task Team by proposing Co-Chairmen and members to Science Board (who will refer these to Governing Council) prior to PICES XIII so that CFAME can hold its first meeting at PICES XIII;**

**Dr. Perry:**

- 2.CCCC.3 Contact the present Co-Chairmen of MONITOR to discuss chairmanship duties, and contact national delegates regarding re-confirming members of MONITOR in its new role as a Technical Committee under Science Board. MONITOR will be expected to meet and participate in PICES XIII as a Technical Committee.**

Science Board

Dr. Perry, presented the interim report of the Study Group on *Fisheries and Ecosystem Responses to Recent Regime Shifts* (FERRRS) and the update on the Census of Marine Life project on *Marine life in the North Pacific: The known, unknown, and unknowable*.

**Updates on interactions with other programs and organizations (Agenda Item 3)**

NPAFC

PICES will invite the Chairman of the NPAFC's Committee on Scientific Research and Statistics (CSRS) to present annual updates on the status of Pacific salmon in the North Pacific to the MONITOR Technical Committee. Every third year, PICES will invite the Chairman of the

CSRS Committee to make a more complete presentation on the status of Pacific salmon in the North Pacific as input to update the North Pacific Ecosystem Status Report.

PICES agreed to co-sponsor with NPAFC a symposium on Pacific salmon as indicators of North Pacific marine ecosystems, and suggested changes to the draft symposium proposal as outlined in *SB-IM Endnote 5*. PICES volunteers for the Scientific Steering Committee of this symposium are Drs. Radchenko, S. Kim, Stein, with one more member needed from the FIS Committee.

**ACTION:**

**Dr. Perry:**

- 3.NPAFC.1 Invite Chairman of NPAFC-CSRS Committee to present annual updates on the state of North Pacific salmon to the MONITOR Committee at each PICES Annual Meeting; more detailed updates to be invited every three years as input to the Ecosystem Status Report;**
- 3.NPAFC.2 Finalize symposium outline with NPAFC, and implement the Scientific Steering Committee for this Symposium;**

**Dr. Ishida:**

- 3.NPAFC.3 Nominate a FIS member to be part of the joint symposium Scientific Steering Committee.**

SCOR

Science Board supported a joint PICES/ICES/GLOBEC proposal submitted to SCOR for a Working Group on *Global comparisons of zooplankton time series*, and agreed to provide funding for one additional member (from PICES) to participate in this Working Group should it be accepted by SCOR.

**Discussion of Capacity Building Study Group report (Agenda Item 4)**

Science Board discussed the report of the Study Group on *PICES Capacity Building*, which was approved in November 2003. Science Board noted that training and capacity building

activities are now part of the terms of reference of the new MONITOR Technical Committee. It was recommended that Scientific Committees discuss capacity building opportunities at PICES XIII.

A draft proposal was tabled for a Young Scientists Conference to be held in 2007, jointly with ICES (*SB-IM Endnote 6*). Science Board enthusiastically endorsed this proposal, requested comments from ICES, and recommended that a Study Group be formed to facilitate PICES action on this topic.

Science Board also noted that two specific activities have begun already that incorporate substantial capacity building elements: the MODEL APN funded workshop and young-investigator training in October 2004, and a proposed CREAMS/PICES training workshop in the summer of 2005. These might serve as initial models for future PICES capacity building efforts.

**ACTION:**

***Dr. Perry:***

**4.1 Contact ICES for comments on the draft Young Scientists Conference proposal and if favourable, form a PICES Study Group to implement;**

***Committee and Scientific Program Chairmen:***

**4.2 Discuss capacity building opportunities, and report to Science Board meeting at PICES XIII.**

**PICES Strategic Plan (Agenda Item 5)**

Science Board and Governing Council approved the draft PICES Strategic Plan that had been revised following discussion and comments at PICES XII (this plan is published in full elsewhere in this Annual Report). Scientific Committees and Programs are requested to review this plan and to discuss development of their own Action Plans that fit within the Strategic Plan. These Action Plans will undergo an initial review at PICES XIII.

**ACTION:**

***Committee and Scientific Program Chairmen:***

**5.1 Circulate the PICES Strategic Plan to their members, discuss the activities of their Committee in relation to the Strategic Plan, and develop a first draft of an Action Plan for current and future activities based on this Strategic Plan.**

**PICES communications (Agenda Item 7)**

Science Board congratulated and thanked the PICES Secretariat for their hard work at re-designing the PICES website, which is now an attractive and effective product. The major outstanding issue is to populate the website with information, in particular about each Committee and Program. Quality control of information posted to the PICES website will be maintained by a small "Web Publications Committee", which will periodically review information and recommend common formats. Dr. Batchelder volunteered to chair this Committee, with additional members being the members of Science Board.

Science Board also discussed the utility of the session summaries that are published from each Annual Meeting in the PICES Annual Report. It was agreed to continue these summaries and to consider posting them on the PICES website following each Annual Meeting.

**ACTION:**

***Committee and Scientific Program Chairmen:***

**7.1 Prior to PICES XIII, Committees are asked to propose information that should go on their PICES website. These proposals should be discussed at PICES XIII Committee meetings. Possible formats and sample information will then be discussed at the PICES XIII Science Board meeting;**

**7.2 Summaries of scientific sessions at Annual Meetings will continue. Committee Chairmen remain responsible for ensuring that session convenors provide these summaries. Science Board Chairman will provide sample session summary.**

## Awards (Agenda Item 8)

Science Board recommended continuing the procedure of forming an *ad hoc* committee to determine the Best Poster at the Annual Meetings. The Secretariat will be asked to provide a list of posters presented by young scientists, and to identify eligible posters with some special marking on the poster itself.

### **ACTION:**

#### **Secretariat:**

**8.1 Provide Committee and Scientific Program Chairmen with a list of posters eligible for the Best Poster Award as soon as possible at Annual Meetings, and put a special mark on the eligible posters to make them clearly identifiable.**

## **Process to develop the major integrating program for PICES (Agenda Item 9)**

Science Board continued its ongoing discussions about the potential topics and process to develop the second major PICES integrating program, to follow the completion of the current CCCC Program. Committees are asked to discuss over the summer possible topics for such a major program, how such a program should be developed, and if possible, to consider what worked and what did not work in developing and conducting the CCCC Program. Comments from the Committees will be discussed by Science Board at PICES XIII (or possibly the next inter-sessional meeting), potentially leading to formation of a Study Group to provide recommendations.

### **ACTION:**

#### **Dr. Perry:**

**9.1 Provide written instructions to Committee Chairmen regarding (1) possible topics, (2) process for developing the next major PICES integrating program, and (3) lessons-learned from developing the CCCC Program;**

#### **Committee and Scientific Program Chairmen:**

**9.2 Encourage Committee discussions during the summer on topics and**

**approaches for the next major PICES integrating program, in preparation for discussions at Committee meetings at PICES XIII.**

## **Other business (Agenda Item 11)**

### **Effective Working Groups**

Science Board discussed features that help make Working Groups operate efficiently and complete their tasks in a timely manner. This discussion was initiated by concerns about a few Working Groups which have had problems. Key features include:

- clear (and realistic) terms of reference, in particular with objectives and deliverables;
- capable and committed Chairmen;
- committed, available, and interested members;
- adequate resources (time and funding);
- active communication with (and guidance from) the parent committee;
- frequent reporting deadlines.

Having clear terms of reference, and committed and interested members, means that the topic proposed for a Working Group must be of high interest to PICES. Having capable Chairmen who understand the objectives is obviously important, but it is equally important to have members willing to work on the topic. It was suggested that when a Working Group is proposed, a list of potential members be provided which would go to Governing Council to assist them in selecting members. Frequent interaction and guidance by the parent committee is also important to the success of Working Groups, in particular if the Chairmen or members are not familiar with PICES.

### **Committee Vice-Chairman positions**

Science Board discussed the idea of having Vice-Chairman positions for each of the Committees on Science Board (the CCCC Program already has two Co-Chairmen). As with the new position of Vice-Chairman of Science Board, Vice-Chairman of Committee would help the Chairman with the duties of planning and running the committee business on an on-going basis throughout the year. The Vice-Chairman would not be expected

necessarily to participate in the meetings of Science Board, but could potentially be eligible for election to Committee Chairman once the Chairman's term has been completed. All Committees were requested to discuss this idea and report to Science Board at its meeting in October 2004.

**ACTION:**

**Committee and Scientific Program Chairmen:**

**11.1 Discuss the possibility of having a Vice-Chairman position for their Committee to assist the Chairman with the on-going business of the Committee, with a**

**report on viewpoints to be presented at Science Board in October 2004.**

North Pacific Ecosystem Status Report

The draft North Pacific Ecosystem Status Report (NPESR), which had been revised following discussions and comments at and after the PICES XII, was reviewed. Science Board approved the scientific content of the report, but did not reach consensus on the name for the sea between the Japanese archipelago and the NE Asian mainland. This matter was referred to Governing Council.

**SB-IM Endnote 1**

**Participation List**

Science Board members

Harold P. Batchelder (Co-Chairman, CCCC-IP)  
Yukimasa Ishida (Chairman, FIS)  
Kuh Kim (Chairman, POC)  
Suam Kim (Co-Chairman, CCCC-IP)  
R. Ian Perry (Chairman, Science Board)  
Vladimir I. Radchenko (Chairman, BIO)  
Igor I. Shevchenko (Chairman, TCODE)  
John E. Stein (Chairman, MEQ)  
Jin Ping Zhao (China, Science Board member)

Governing Council members and advisors

Vera Alexander (Chairman, PICES) (6-7<sup>th</sup> only)  
Lev N. Bocharov (Russia, national delegate)  
George Boehlert (U.S.A., national delegate)  
Zhi-Xin Chen (China, alternate delegate)  
Jong-Hyun Choe (Korea, advisor)  
Young-Hoon Chung (Korea, national delegate)  
Joan Kean-Howie (Canada, national delegate)  
Hyung-Tack Huh (Past-Chairman, PICES)

Keun-Oh Kim (Korea, national delegate)  
Tokimasa Kobayashi (Japan, national delegate)  
Qian-Fei Liu (China, advisor)  
Richard J. Marasco (U.S.A., national delegate)  
Pavel Vorobyov (Russia, advisor)  
Tsuyoshi Yamamoto (Japan, national delegate)  
Satoru Yasuda (Japan, advisor)

PICES Secretariat

Alexander Bychkov (Executive Secretary)  
Stewart (Skip) M. McKinnell (Deputy Executive Secretary)

Observers

Woo-Jeung Choi (Korea, NFRDI, observer)  
Hee-Dong Jeong (Korea, NFRDI, observer)  
Young-Shil Kang (Korea, NFRDI, observer)  
Hak-Gyoon Kim (Korea, NFRDI, observer)  
Won-Seo Park (Korea, NFRDI, observer)  
Sinjae Yoo (Korea, KORDI, observer)

**SB-IM Endnote 2**

**Science Board/Governing Council Inter-sessional Meeting Agenda**

***Thursday, May 6***

1. Welcome, introductions, logistical details, purpose of meeting
2. Updates from Scientific Committees and Programs

- 2.1. BIO (Radchenko)
- 2.2. FIS (Ishida)
- 2.3. MEQ (Stein)
- 2.4. POC (K. Kim)
- 2.5. TCODE (Shevchenko)

- 2.6. CCCC (Batchelder/S. Kim)
- 2.7. Science Board (Perry)

**Friday, May 7**

- 3. Updates on interactions with other programs and organizations
  - 3.1. NPAFC (Perry)
  - 3.2. ICES (Bychkov)
  - 3.3. SCOR (Perry)
  - 3.4. GLOBEC (Perry)
- 4. Actions on PICES Capacity Building
- 5. PICES Strategic Plan (Perry/Alexander)

**Saturday, May 8**

- 6. Updates on other planned and proposed symposia (Perry/Bychkov)

- 7. PICES communications
  - 7.1 PICES website
  - 7.2 Summaries of scientific sessions in Annual Reports
- 8. Awards
  - 8.1 Identifying young scientists for the Best Poster Award
  - 8.2 Wooster Award (closed session)
- 9. Process to develop the second major integrating program for PICES
- 10. Update on preparations for PICES XIII
- 11. Other business
  - 11.1 Effective Working Groups
  - 11.2 Committee Vice-Chairman positions
  - 11.3 North Pacific Ecosystem Status Report

**SB-IM Endnote 3**

**Terms of Reference for the  
*Climate Forcing and Marine Ecosystem Response (CFAME) Task Team of the CCCC Program***

Objective:

- To synthesize regional and basin-wide studies and provide a forum for the integration of CCCC-related hypotheses and data.

Terms of reference

- 1. The CFAME Task Team is responsible for the promotion, coordination, integration and synthesis of research activities related to the CCCC Program among member nations. This goal could be accomplished by convening meetings, periodic scientific symposia or workshops, or by distributing information designed to foster cooperation and integration among existing or developing programs;
- 2. The CFAME Task Team should provide the scientific body for hypothesis testing of

model experiments, by providing a forum for interaction between data-gathering and distribution programs (MONITOR) and theoretical experimentation and development (MODEL and NEXT) as related to climate change impacts on marine ecosystems;

- 3. Particular emphasis is placed on testing ecosystem-level hypotheses, through review and examination in a collaborative environment, of (i) comparisons between regional and/or basin ecosystems, (ii) linkages in time, space, or seasonality between climate and ecosystems, and (iii) responses of regional ecosystems to basin-scale forcing;
- 4. The CFAME Task Team should encourage establishment of component activities as needed to facilitate synthesis of the CCCC Program.

**SB-IM Endnote 4**

**MONITOR Technical Committee Terms of Reference**

- 1 Identify principal monitoring needs of the PICES region;
- 2. Develop approaches to meet these needs, including training and capacity building;
- 3. Serve as a forum for coordination and development of the PICES components of the Global Ocean Observing System (GOOS), including possible method

- development and inter-comparison workshops to facilitate calibration, standardisation and harmonisation of data sets;
4. Serve as the senior editorial board of the North Pacific Ecosystem Status Report, (NPESR), reporting to Science Board;
  5. Recommend interim meetings to address monitoring needs, PICES-GOOS activities, and development of the NPESR;
  6. Provide annual reports to Science Board and the PICES Secretariat on monitoring activities in relation to PICES;
  7. Interact with TCODE on management issues of monitoring data.

## SB-IM Endnote 5

### Revisions proposed by PICES to the draft proposal for a joint NPAFC-PICES symposium on Pacific salmon

Title: **Pacific salmon as indicators of the state of North Pacific marine ecosystems and climate variability**

Proposed dates: October 11-13, 2005

Proposed location: Seoul, Korea

Convening organizations: NPAFC, PICES (others); NPAFC is expected to take the lead role

#### Background:

Symposium would serve as follow-up to the broader PICES Ecosystem Report. Timing is appropriate to hold a joint symposium that integrates Pacific salmon into North Pacific marine ecosystems, and examines the extent to which Pacific salmon, since they return to coastal regions, can be used as indicators of conditions in North Pacific marine ecosystems.

#### Symposium organization:

Main themes:

1. **Pacific salmon as indicators of climate variability in the North Pacific**
  - 1a. Observations: what observations of Pacific salmon populations indicate climate variability most clearly?

- 1b. Mechanisms: how is climate variability transmitted to variability in Pacific salmon populations?
2. **Pacific salmon as indicators of conditions in near-shore, continental shelf, and open ocean environments**
  - 2a. Migration routes, migration timing, and resident areas for populations of Pacific salmon and what they tell us about environmental conditions on small to mid-scales?
  - 2b. Spatial scales of salmon and environmental variability: over what spatial scales and regions do salmon act as indicators of environmental variability?
3. **How can changes in ocean conditions be observed using Pacific salmon and other methods?**

#### Symposium Steering Committee

- Two Co-Chairmen: one from NPAFC, one from PICES;
- Scientific Steering Committee with as many representatives as each organisation deems needed (to a max. of 5 per organisation).

## SB-IM Endnote 6

### Draft proposal for a PICES-ICES Young Scientists Conference

Background: In 1999, UNESCO and ICSU co-sponsored the World Conference on Science (WCS) in Budapest (<http://www.unesco.org/general/eng/programmes/science/wcs/>). The report of the WCS called for measures to facilitate the access of young scientists to careers

in science and their greater involvement in the identification of priorities and policy-making in science. The follow-up report to governments by UNESCO on the results of the WCS (*Harnessing Science to Society-Analytical Report* <http://www.unesco.org/science/wcs/>)

report\_wcs.pdf) includes Section 5.8 *Encouraging the participation of young scientists*. It describes activities undertaken by UNESCO during the WCS and thereafter in support of young scientists. In addition to supporting young scientist fellowships, support for young scientist conferences (e.g., Gdansk, Poland and Moscow, Russia) was an approach followed by UNESCO.

Independently, ICES organized a successful young scientist conference on marine sciences in Denmark in 1999. During his presentation to the Governing Council at the PICES Twelfth Annual Meeting in Seoul, Korea, the General Secretary of ICES proposed that ICES and PICES might jointly organize a Young Scientists Conference that would bring together “early career” scientists from around the globe”. The topic was referred to the PICES Science Board and this draft proposal is the result.

Objectives:

- To provide an international forum where young marine scientists from PICES and ICES member countries could meet at an early stage of their career to experience international scientific cooperation and to begin to establish peer networks; and
- To provide an opportunity for young scientists to contribute to the international scientific work that forms the basis for managing the marine environment.

Location: A PICES or ICES member country to be determined. Factors affecting the decision will include a willing host and a lower than average cost (relative to other locations) per participant. The density of countries within Europe, and the general tendency of balancing national participation at such events, suggests that a European location would likely be the least expensive, followed thereafter by an eastern North American location. For logistical and cost implications, it should be located near a major airport.

Date: June 2006 or 2007, if initial commitments of funds accrue slowly. The final choice of

dates must consider the academic calendar year to allow for strong participation from universities. The duration will be 3 or 4 days, depending on the mix of oral/poster presentations requested and the number of parallel sessions (typically 16-18 oral presentations can be scheduled per day including longer times for invited speakers).

Participants: Post-graduate students up through recently-graduated doctoral researchers (within 2 years of defense) by invitation only. Invitations will be offered based on evaluation criteria established by the Scientific Steering Committee, in consultation with the Organizing Committee.

Scientific Steering Committee: Four senior scientists (two each from ICES and PICES) whose main responsibilities will be to provide advice to the Organizing Committee, to attend the conference, and to offer constructive scientific advice and encouragement to participants.

Keynote speakers: One keynote talk each day related to the topic for the day.

Organizing Committee: The Committee will be responsible for developing the scientific programme and event logistics. Membership will include young scientists selected by the Scientific Steering Committee: one representative each from the ICES and PICES Secretariats, and one Financial Officer. The Financial Officer will manage conference finances and pay the bills.

Publication: Selected papers presented at the Conference will be published in a *Special Issue* of the *ICES Journal of Marine Science* following peer review.

Funding: ICES and PICES delegates will raise sufficient funds to cover the travel and daily costs of all invited participants and organizers. PICES and ICES will share equally the responsibilities for fundraising (about US\$ 150K per organization).