

*GC Appendix A***2015 Governing Council decisions****2015/A/1: 2014 Auditor's Report**

Council accepted the audited accounts for *FY* 2014.

**2015/A/2: Annual contributions**

- i. Council re-iterated the importance for all Contracting Parties to pay the Annual Fee by the January 1 deadline and confirmed that for planning of their funding requests for annual contributions, Contracting Parties should continue to use the guideline generally accepted at PICES-1999 (Decision 1999/A/2(ii)), which states that the annual contributions will increase at the rate of inflation in Canada.
- ii. Council re-iterated its previous instruction to the F&A Chairman and Executive Secretary to develop appropriate metrics to characterize the increase in science activities of the Organization, as well as the formula for determining the size of a potential increase in annual contributions and to develop alternative approaches (incremental or one time) for the increase (Decision 2013/A/2(iii)).

**2015/A/3: Budgetary considerations**

- i. Council accepted the estimated accounts for *FY* 2015.
- ii. Council approved the *FY* 2016 budget of \$879,500. The amount of \$113,300 will be transferred from the Working Capital Fund to balance the budget, setting the total annual contribution at \$766,200, and the 2015 annual contribution at \$127,700 per Contracting Party.
- iii. Council approved a transfer from the Working Capital Fund to the Relocation and Home Leave Fund in order to bring the balance of the Relocation and Home Leave Fund to \$90,000.
- iv. Council approved a transfer from the Working Capital Fund to the Trust Fund to recover the 2015 expenses and restore the Trust Fund to the level of \$110,000.
- v. Council agreed to earmark \$15,000 of reserve operating funds in the Working Capital Fund in 2015 for the 2017 PICES/ICES Early Career Scientists Conference.
- vi. Council approved: (1) a lump sum employer contribution of \$20,000 from the *FY* 2016 budget to the International Fisheries Commission (IFC) Pension Plan to pay down unfunded liabilities; (2) an additional lump sum payment (up to \$25,000) to the IFC Pension Plan, if there is a *FY* 2015 surplus in the General Fund, as determined by the Auditor's Report for 2015; and (3) this practice be continued until PICES receives the next actuarial valuation, which is currently expected in 2017.
- vii. Council approved an additional transfer (up to \$25,000) be made from the Working Capital Fund reserve to the 2017 Early Career Scientist's Conference encumbered fund, if there is a *FY* 2015 surplus in the General Fund, as determined by the Auditor's Report for 2015. This determination is to be made after the assessment of the pension transfer.

**2015/A/4: Future PICES Annual Meetings and 2016 Inter-sessional Science Board meetings**

- i. Council approved the proposal from the USA to hold the 2016 PICES Annual Meeting from November 1–13, 2016, in San Diego.
- ii. Council accepted the offer from the Russian Federation to host the 2017 PICES Annual Meeting in Vladivostok, with the dates and specific venue to be confirmed in spring 2016. Russia is encouraged to provide formal confirmation to the Secretariat of their intention to host PICES-2017 and it is noted that considerable planning has already taken place. Russia requests up to \$40,000 from PICES to defray the costs of the 2017 Meeting.
- iii. Council requested Japan to confirm by March 31, 2016 their intention to host the 2018 PICES Annual Meeting in Japan.

- iv. Council agreed to keep the same registration fee structure for PICES-2016 as for PICES-2010 through PICES-2015:

Type of registration fee	CDN \$
Regular	275
Early	200
Student	50
Spousal/guest	50

- v. Council approved an Inter-sessional Science Board meeting to be hosted by China in Hangzhou, in May or June, 2016.
- vi. Council requests that the Secretariat continue to work individually with Contracting Parties to implement approaches for funding annual meetings that are consistent with PICES Financial Regulations.

#### **2015/A/5: 2016 Inter-sessional Governing Council-meetings**

Council approved an Inter-sessional Governing Council Meeting, coordinated with the Inter-sessional Science Board Meeting, in accordance with Article VII 4 (e) of the Convention, in anticipation of decisions required in advance of the Anniversary Meeting (PICES-2016).

#### **2015/A/6: Twenty-Fifth Anniversary of PICES**

- i. Council requests that the Anniversary Planning Committee proceed with prioritizing their recommendations to prioritize (high, medium, low) the list of proposed activities (*GC Endnote 8*).
- ii. Council requests that the Anniversary Planning Committee proceed with executing the recommendations, with due consideration of the priority, in-kind support provided and available funding.
- iii. Council requests a change from the current to a new logo design (*GC Endnote 9*) with consideration of changing the 'PICES' text to a curved design such that the convention area is visible.

#### **2015/A/7: PICES Strategic Plan**

Council reviewed progress on the revision of the Strategic Plan and authorized the continued work of the Study Group on Revising the Strategic Plan, with the objective of adoption of a revised Plan at the Inter-sessional Governing Council Meeting. Dr. Carmel Lowe was added to the Study Group as a Canadian member.

#### **2015/A/8: PICES Intern Program**

- i. Considering funding currently available for the Intern Program and stated intentions for contributions by Contracting Parties, Council agreed to initiate the process to obtain an intern for the 2016/2017 term. To insure continuity of the program, an earlier starting date, such as early May was suggested. Following the existing rotation cycle, Korea was requested to nominate an intern by February 28, 2016.
- ii. Council instructed the Executive Secretary to invite Contracting Parties to provide voluntary contributions to the Trust Fund to support the Intern Program in 2016 and beyond.

#### **2015/A/9: Severance pay (Staff Rule 29)**

- i. Council agreed to freeze accruals of severance pay for employees of the PICES Secretariat on January 1, 2017, pending the completion of the review of the Staff Rules.
- ii. Independently, Council instructed the F&A Chairman, Executive Secretary and Chairman of PICES to complete the review of the PICES Staff Rules to assess consistency of these Staff Rules with the PICES Financial Regulations and the Public Service of Canada, and to evaluate the extent to which they currently address the need for effective operation of an international science organization in 2016 and beyond. This review is to be presented at the Inter-sessional Governing Council meeting.

**2015/A/10: Changes to Financial Regulations**

Council adopted the following revised Financial Regulation 6 (Funds (vii)):

The Relocation and Home Leave Fund shall be used, to the extent appropriated by the Council as part of the budget decision, to pay relocation expenses of appropriate new employees and their dependents to the seat of the Secretariat; expenses for removal after the period of employment has ended; for home leave for internationally recruited staff and their dependents, in accordance with established rules and practices and for severance and excess accumulated vacation pay (all employees).

**2015/A/11: Changes to Rules of Procedure**

Council adopted the following revised Rules of Procedure:

## i. Scientific Programs – Rule 16

A Scientific Program is established by the Science Board, with the approval of the Council, to address major scientific questions of general interest to the Organization. A Scientific Program will typically place significant demands on the Organization for periods of up to a decade. The Program:

- (i) shall have an organizational structure recommended by the Science Board to complete the work;
- (ii) may include a Scientific Steering Committee reporting to the Science Board. Such a Scientific Steering Committee may, with the endorsement of the Science Board and approval by the Council, establish temporary expert groups to consider in greater detail, topics of importance to the Scientific Program to warrant continuing attention, but only when sufficient expertise or capacity is lacking with the existing structure of Scientific Committees and other expert group;
- (iii) shall be supported by resources determined by the Organization;
- (iv) will be disbanded at the discretion of the Science Board.

## ii. Scientific Leadership – Rule 17:

- (iv) for Sections, Co-Chairmen are selected from the membership by the Science Board for approval by the Council to serve for a term of three years, and shall be eligible for re-election for one consecutive term.

## iii. Scientific Committees –Rule 13(iii) - Sections:

- (d) shall be responsible to and reviewed regularly (at least once every five years) by the parent Scientific Committee and members confirmed by the Contracting Parties at each review.

## iv. Technical Committee – Rule 14:

Technical Committees are established by the Science Board, with the approval of the Council, as ongoing groups responsible to the Science Board to facilitate the technical and operational activities required to support the Organization's general scientific aims. A Technical Committee:

- (i) shall consist of not more than three members appointed by each Contracting Party;
- (ii) may, with the endorsement of the Science Board and approval of the Council, include ex-officio members;
- (iii) shall establish one Chairman according to Rule 17;
- (iv) may, with endorsement of the Science Board and approval by the Council, establish ad hoc groups (Advisory Panel, Working Group) to facilitate the work of the Technical Committee.

**2015/A/12: Staffing the PICES Executive Secretary position**

Mr. Robin Brown accepted the position of Executive Secretary and took up the position on February 23, 2015.

**2015/A/13: Administrative support for the Science Board Chairman**

Council directed the Executive Secretary hold discussions between the Science Board Chairman-Elect and Japanese national delegate to determine the need for and level of administrative support in 2016 when the Chairman-Elect assumes Science Board chairmanship.

**2015/A/14: Executive Committee for evaluating the annual performance of the Executive Secretary**

Council adopted the following revised Membership for the Executive Committee for evaluating the annual performance of the Executive Secretary with a view to ensuring continuity and consistency with Canadian public service standards:

Membership

The Executive Committee will be chaired by the PICES Chairman, with the Past Chairman, Vice-Chairmen and Chairman of the F&A Committee as members. The Canadian delegate will also be included as a member if not already included through a chairmanship role (*GC Endnote 10*).

**2015/A/15: Membership**

Council recommended that PICES (primarily through USA members) take opportunities to explore with Mexican marine scientists the possibility of Mexico joining the Organization.

**2015/S/1: Arctic-based activities**

Council reviewed PICES involvement in Arctic-based activities during 2015 (Decision 2014/S/2) and noted that some definitions of the Arctic included areas that are clearly within the PICES Convention Area (e.g., Sea of Okhotsk and Bering Sea). Therefore, Decision 2014/S/2 would apply only to activities clearly outside of the PICES convention area. Council recommended that the Secretariat continue to monitor and report on requests for PICES involvement in Arctic activities.

**2015/S/2: 2016 PICES Annual Meeting**

- i. The following scientific sessions are to be convened at PICES-2016:
  - ¾-day Science Board (SB) Symposium on “*25 Years of PICES: Celebrating the past, imagining the future*”;
  - 1-day Topic Session on “*Early life history stages as indicators and predictors of climate variability and ecosystem change*”;
  - 1-day Topic Session on “*Source, transport and fate of hydrocarbons in the marine environment*”;
  - 1-day Topic Session on “*Understanding our changing oceans through species distributions and habitat models based on remotely sensed data*”;
  - ½-day Topic Session on “*Climate variability, climate change and the reproductive ecology of marine populations*”;
  - 1-day Topic Session on “*What factors make or break trophic linkages?*”;
  - 1-day Topic Session on “*New stage of ocean acidification studies: Responses of oceanic ecosystem including fisheries resources*”;
  - 1-day Topic Session on “*The Effect of marine debris caused by the Great Tsunami of 2011*”;
  - ½-day Topic Session on “*Resilience, transitions and adaptation in marine ecosystems under a changing climate*” (co-sponsored by ESSAS);
  - 1-day Topic Session on “*Causes and consequences of 25 years of variability in ocean conditions on the ecosystems of the eastern North Pacific*”;
  - 1-day Topic Session on “*The response of marine ecosystems to natural and anthropogenic forcing: past, present, and future*”;
  - 1-day Topic Session on “*Advances in Understanding and modelling of physical processes in the North Pacific in the past 25 years of PICES and future directions*”;
  - 1-day Topic Session on “*1-day Topic Session on “The response of marine ecosystems to natural and anthropogenic forcing: past, present, and future*”;
  - ½-day Topic Session on “*Understanding the changing coastal ocean: advances and challenges in multi-parameter observations*”;
- ii. The following workshops are to be convened at PICES-2016:
  - 1-day Workshop on “*Acidification of the North Pacific Ocean: A basin-wide assessment*”;
  - 1-day Workshop on “*Conditions promoting extreme Pseudo-nitzschia events in the eastern Pacific but not the western Pacific*”;

- 1-day Workshop on “*Methods relating oceanographic conditions to the distribution of highly migratory species*”;
  - 1-day Workshop on “*Phase 1: Modeling effects of climate change on fish and fisheries*” (co-sponsored by ICES);
  - 1-day Workshop on “*Consumption of North Pacific forage species by marine birds and mammals*”;
  - 1-day Workshop on “*Delivering quality multi-parameter data from the coastal ocean*”;
  - 1-day Workshop on “*Mesoscale and submesoscale processes in the North Pacific: History and new challenges*”;
  - 1-day Workshop on “*The role of the northern Bering Sea in modulating the Arctic environments: towards international interdisciplinary efforts*”;
  - 1-day Workshop on “*Distribution and risk analysis of radionuclides in the North Pacific*”
  - 2-day Workshop on “*Distributions of habitat-forming coral and sponge assemblages in the North Pacific Ocean and factors influencing their distribution*”;
- iii. The following business meetings are to be held at PICES-2016:
- 3-hour overture meeting, ½-day meeting preceding a joint meeting with FUTURE SSC meeting, and a 1-day meeting of Science Board;
  - 1-day FUTURE SSC meeting;
  - 2-hour overture meetings and ½-day meetings of Standing Committees;
  - 2-hour overture meeting and ½-day meeting of the Science Board Section on *Human Dimensions of Marine Systems* (S-HD);
  - 1-day meeting of the Section on *Marine Birds and Mammals* (S-MBM);
  - 1-day meeting of the Section on *Ecology of Harmful Algal Blooms in the North Pacific* (S-HAB);
  - ½-day meeting of the Section on *Carbon and Climate* (S-CC);
  - ½-day meeting of the joint PICES/ICES Section on *Climate Change Effects on Marine Ecosystems* (S-CCME);
  - 1-day meeting of the Working Group on *Assessment of Marine Environmental Quality of Radiation around the North Pacific* (WG 30);
  - 1-day meeting of the Working Group on *Emerging Topics on Marine Pollution* (WG 31);
  - 1-day meeting of the Working Group on *Working Group on Biodiversity of Biogenic Habitats* (WG 32);
  - 2-day meeting of the joint PICES/ICES Working Group on *Climate Change and Biologically-driven Ocean Carbon Sequestration* (WG 33);
  - 1½-day meeting of the joint PICES/ISC Working Group on *Oceanographic Conditions and the Distribution and Productivity of Highly Migratory Fish* (WG 34);
  - ½-day meeting of the Advisory Panel for a *CREAMS/PICES Program in East Asian Marginal Seas* (AP-CREAMS);
  - 1-day meeting of the Advisory Panel on *North Pacific Coastal Ocean Observing System* (AP-NPCOOS);
  - 1-day meeting of the Study Group on *North Pacific Ecosystem Status Report* (SG-NPESR3);
  - 1-day meeting of the Study Group on *Climate and Ecosystem Predictability* (SG-CEP);
  - 1-day meeting of the Study Group on *Ecosystem Reference Points as a Common Currency across PICES Member Countries* (SG-CERP);
  - 1-day meeting of the Project Science Team for the PICES/MAFF project on “*Marine ecosystem health and human well-being*” (MarWeB);
  - 1-day meeting of the Project Science Team for the PICES/MoE project on “*Effects of marine debris caused by the Great Tsunami of 2011*”.

**2015/S/3: Inter-sessional symposia/sessions/workshops/meetings**

The following inter-sessional events are to be convened/co-sponsored in 2016 and beyond:

- i. Symposia/conferences:
- 9<sup>th</sup> International Conference on Marine Bioinvasions on “*Hulls, harbours and other invasion hotspots*”, January 26–29, 2016, Sydney, Australia (co-sponsored by PICES) (approved at PICES-2014);

- 6<sup>th</sup> ICES/PICES Zooplankton Production Symposium on “*New challenges in a changing ocean*”, May 9–13, 2016, Bergen, Norway (approved at PICES-2014);
  - ICES MSEAS Symposium on “*Understanding marine socio-ecological systems: Including the human dimension in Integrated Ecosystem Assessments*”, May 30–June 3, 2016, Brest, France (co-sponsored by PICES) (approved at PICES-2014);
  - PICES/ICES Symposium on “*Drivers of small pelagic fish resources*”, March 6–11, 2017, Victoria, Canada (approved at PICES-2014);
  - Invited speakers from PICES to the CLIVAR Open Science Meeting September 15–23, 2016, Qingdao, China
- ii. Joint Theme Sessions:
- “*Seasonal-to-decadal prediction of marine systems: Opportunities, approaches and applications*” at the ICES Annual Science Conference. September 19–23, 2016, Riga, Latvia
  - “*When is enough – enough?*” *Methods for optimising, evaluating and prioritising of marine data collection*” at the ICES Annual Science Conference. September 19–23, 2016, Riga, Latvia
- iii. Workshops and meetings:
- 2-day inter-session meeting of the FUTURE Scientific Steering Committee, March 8–10, 2016, San Diego, U.S.A.;
  - 2-day meeting of GlobalHAB Scientific Steering Committee. March 8–10, 2016, Oban, Scotland;
  - 3-day Scoping Meeting for the NPAFC International Year of the Salmon project. March 15–17, 2016, Vancouver, Canada;
  - PICES representation at a 2 day meeting of NOWPAP CEARAC, April 7–8, 2016, Toyama, Japan;
  - 2½-day inter-session Science Board meeting, May 30–June 1, 2016, Hangzhou, China;
  - 1-day joint PICES/ICES S-CCME workshop on economic modelling of the effects of climate change on fish and fisheries (in conjunction with the MSEAS Symposium, May 30–June 3, 2016,
  - 2½-day meeting of the Project Science Team for the PICES/MAFF project on “*Marine ecosystem health and human well-being*” (MarWeB), June 22–24, 2016, Victoria, Canada;
  - 3-day inter-session SG-NPESR3 Workshop for time-series evaluation and synthesis, June 2016, location TBD;
  - 1-day meeting of S-CCME in conjunction with the ICES ASC, September 19–23, 2016, Riga, Latvia;
  - 2-day meeting of writing team for HAB Best Practices Manual. Date and location TBD.
- iv. Capacity development events:
- Pacific Ecology and Evolution Conference (PEEC 2016). February 26–28, 2016, Bamfield, Canada;
  - IMBER ClimEco5 Summer School on “*Towards more resilient oceans: Predicting and projecting future changes in the ocean and their impacts on human societies*”, August 10–17, 2016, Natal, Brazil;
  - Training Course on “*Freshwater discharge and coastal environments*”, November–December, 2016, Nagoya, Japan;
  - 3<sup>rd</sup> PICES/ICES Conference for Early Career Scientists, spring 2017, Korea (approved at PICES-2014).

#### **2015/S/4: Travel and representation at the meetings of other organizations/programs**

- i. 2016 PICES Annual Meeting:
- Invited speakers for Science Board Symposium and Topic Sessions, with the normal allocation of approximately \$5,000 per Committee/Program; additional requests are subject to fund availability;
  - One invited speaker for each of the approved workshops (see 2015/S/2(ii));
- ii. Inter-session events:
- PICES representative to attend the SCOR (Scientific Committee on Oceanic Research) Executive Committee Meeting (December 7–9, 2015, Goa, India; immediately after a symposium to celebrate the Golden Jubilee of the National Institute of Oceanography, the 50<sup>th</sup> Anniversary of the completion of the International Indian Ocean Expedition (IIOE), and the launch of IIOE-II);

- PICES convenor and invited speaker to attend the 9<sup>th</sup> International Conference on Marine Bioinvasions, January 26–29, 2016, Sydney, Australia (approved at PICES-2014);
- Travel support for Early Career Scientists to attend the Pacific Ecology and Evolution Conference (PEEC 2016), February 26–28, 2016, Bamfield, Canada;
- Travel support as required for 2-day inter-sessional meeting of the FUTURE Scientific Steering Committee, March 8–10, 2016, San Diego, U.S.A.;
- One PICES representative from S-HAB to attend a 3-day meeting of GlobalHAB Scientific Steering Committee, March 8–10, 2016, Oban, Scotland;
- PICES associate member of SCOR WG 140 on Biogeochemical Exchange Processes at the Sea Ice Interfaces to attend the WG 140 meeting, March 6–8, 2016, Paris, France;
- PICES representatives and one PICES scientist to attend 3-day Scoping Meeting for the NPAFC International Year of the Salmon project. March 15–17, 2016, Vancouver, Canada;
- One PICES member to attend NOWPAP CEARAC Meeting, April 7–8, 2016, Toyama, Japan;
- Two invited speakers from S-CCME and one S-HD member to attend ICES MSEAS Symposium on “*Understanding marine socio-ecological systems: Including the human dimension in Integrated Ecosystem Assessments*”, May 30–June 3, 2016, Brest, France;
- PICES representative to participate in the 49<sup>th</sup> Session of the IOC (Intergovernmental Oceanographic Commission of UNESCO) Executive Committee, June 6–10, 2016, Paris, France;
- Travel support as required for 3-day inter-sessional SG-NPESR3 workshop for time-series evaluation and synthesis, June 2016, location TBD;
- Two early career scientists from PICES member countries to attend the IMBER ClimEco5 Summer School, August 10–17, 2016, Natal, Brazil;
- Two to five PICES scientific experts to attend CLIVAR Open Science Conference, September 15–23, 2016, Qingdao, China;
- PICES Representatives and two invited speakers/co-convenors for two co-sponsored Theme Sessions to participate in ICES ASC, September 19–23, 2016, Riga, Latvia;
- One S-CCME member to attend 1-day meeting of S-CCME in conjunction with the ICES ASC, September 19–23, 2016, Riga, Latvia;
- Up to five students and one lecturer to attend Training Course on “*Freshwater discharge and coastal environments*”, November–December 2016, Nagoya, Japan;
- One PICES representative from S-HAB 2-day meeting of writing team for HAB Best Practices Manual. Date and location TBD.

#### 2015/S/5: Publications

- i. The following publications are to be produced in or submitted to primary journals in 2016–2017:
  - Special issue of Progress in Oceanography based on selected papers from the PICES-2012 Topic Session on “*Advances in understanding the North Pacific Subtropical Frontal Zone ecosystem*” (Guest Editors: T. Ichii, S. McKinnell and M. Seki) in press (approved at PICES-2013);
  - Paper stemming from the PICES-2014 Workshop on “*Linkages between the winter distribution of Pacific salmon and their marine ecosystems and how this might be altered with climate change*” (Lead Author: S. Minobe) to be submitted to a peer-reviewed journal in 2016 (approved at PICES-2014);
  - Review paper on “*The legal and regulatory foundations of fisheries management in PICES member countries*” (Lead authors: K. Criddle) to be submitted to a peer-reviewed journal in 2016 (approved at PICES-2014);
- ii. The following publications are to be produced in the PICES Scientific Report series in 2016–2017:
  - Report on “*Spatial ecology of marine top predators in the North Pacific*” by the Advisory Panel on *Marine Birds and Mammals* (Editors: R. Ream, W. Sydeman, R. Suryan and Y. Watanuki) to be published in 2016 (approved at PICES-2014);
  - Final Report of the Working Group 26 on *Jellyfish Blooms around the North Pacific Rim: Causes and Consequences* (Editors: R. Brodeur and S.-I. Uye) to be published in 2016 (approved at PICES-2013);

- Final Report of the Working Group 27 on *North Pacific Climate Variability and Change* (Editors: E. Di Lorenzo, M. Foreman and S. Minobe) to be published in 2016 (approved at PICES-2014);
  - Final Report of the Working Group 28 on *Development of Ecosystem Indicators to Characterize Ecosystem Responses to Multiple Stressors* (Editors: I. Perry and M. Takahashi) to be published in 2016 (approved at PICES-2014);
  - Final Report of the Working Group 29 on *Regional Climate Modeling* (Editors: C-J. Jang and E. Curchitser) to be published in 2016 (approved at PICES-2014);
  - Report on “*Oceanography of the Yellow and East China Seas (EAST-II region)*” by the Advisory Panel for a CREAMS/PICES Program in East Asian Marginal Seas (Editors: J. Ishizaka, T. Matsuno, J. Zhang, J-H. Lee, S. Kim, D. Xu, Y. Fei, S.-M. Liu and V. Lobanov) to be published in 2016 (approved at PICES-2013);
  - Final Report of the Study Group on *Socio-Ecological-Environmental Systems* (Editor: Emanuele Di Lorenzo);
  - Final Report of the Study Group on *Biodiversity Conservation* (Editor: Janelle Curtis);
  - Final Report of the joint PICES-NOWPAP Study Group on Scientific Cooperation in the North Pacific Ocean (electronic only);
  - Final Report of the joint ISC-PICES Study Group for Scientific Cooperation of ISC and PICES (electronic only);
  - Supplementary chapter for the second North Pacific Ecosystem Status Report developed by the Advisory Panel for a CREAMS/PICES Program in East Asian Marginal Seas .
- iii. Other publications to be produced in 2016 include:
- Poster for PICES-2017 (October, 2017, Vladivostok, Russia);
  - Books of Abstracts for PICES-2016 to be published on the website and distributed electronically;
  - Two regular issues of PICES Press to be published on the website and distributed electronically in winter (Vol. 24, No. 1) and summer (Vol. 24, No. 2) of 2016;
  - Outreach brochure based on the PICES Scientific Report No. 47 (2014) on “*Economic and social impacts of HABs on aquaculture and fisheries*”;
  - Printed brochure advertising 2017 PICES-ICES Early Career Scientist Conference in Korea;
  - Poster advertising 2017 PICES/ICES/FAO International Symposium on “*Drivers of dynamics of small pelagic fish resources*”;
  - Printed brochure advertising 2017 PICES/ICES/FAO International Symposium on “*Drivers of dynamics of small pelagic fish resources*”.

#### **2015/S/6: Future of current PICES expert groups**

- i. The Advisory Panel on Marine Birds and Mammals was disbanded;
- ii. The Study Group on *Socio-Ecological-Environmental Systems* (SG-SEES) shall be disbanded on submission of their final report;
- iii. The Joint PICES-NOWPAP Study Group on *Scientific Cooperation in the North Pacific Ocean* (SG-SCOOP) shall be disbanded on submission of their final report;
- iv. The Study Group for *Scientific Cooperation of ISC and PICES* (SG-SCISC) shall be disbanded on submission of their final report;
- v. The Working Group on *North Pacific Climate Variability and Change* (WG 27) shall be disbanded on submission of their final report;
- vi. The Working Group on *Development of Ecosystem Indicators to Characterize Ecosystem Responses to Multiple Stressors* (WG 28); shall be disbanded on submission of their final report;
- vii. The Working Group on *Regional Climate Modeling* (WG 29) shall be disbanded on submission of their final report;
- viii. An additional Term of Reference was added to the Study Group on the *North Pacific Status Report* (SG-NPESR3):  
 “The SG will report to ISB-2016 on options for biogeographical classification of data submitted to NPESR3, including a recommendation on a preferred approach”.



**2015/S/7: New PICES expert groups**

The following expert groups, with terms of reference as described in *GC Appendix B*, were established:

- i. A new Section on *Marine Birds and Mammals* was established under the direction of the BIO Committee to continue the work of the former Advisory Panel on *Marine Birds and Mammals*;
- ii. A Study Group on *Climate and Ecosystem Predictability* (SG-CEP) was established under the direction of Science Board;
- iii. A Study Group on *Common Ecosystem Reference Points across PICES Member Countries* (SG-CERP) was established under direction of Science Board;
- iv. A Joint PICES-ICES Working Group on *Climate Change and Biologically-driven Ocean Carbon Sequestration* (WG 33) was established under the direction of the BIO Committee;
- v. A Joint PICES-ISC Working Group on *Oceanographic Conditions and the Distribution and Productivity of Highly Migratory Fish* (WG 34) was established.

**2015/S/8: Chairmanship and membership for Science Board, Standing Committees and expert groups**

- i. Dr. Hiroaki Saito was approved as a Science Board Chairman-Elect and will serve as the next Science Board Chairman following PICES-2016;
- ii. Dr. Se-Jong Ju (Korea) elected as the Vice-Chairman of the Biological Oceanography Committee to replace Dr. Atsushi Tsuda (Japan);
- iii. Dr. Douding Lu (China) elected as the Co-Chairman of the HAB-S to replace Dr. Shigeru Itakura (Japan).

***GC Appendix B***

**Study Group on *Common Ecosystem Reference Points across PICES Member Countries (SG-CERP)***  
(approved October 25, 2015)

Parent Committee: Science Board  
Duration: October 2015–November 2016

Statement of Purpose

Managing ecosystems under a changing climate requires flexibility in order to facilitate resilient ecosystems that satisfy desired ecological and societal goals. For example, the combination of high fishing rates, poor climatic conditions and high predation pressures are likely to produce less favorable management outcomes than the same fishing rates and predation pressures under good climatic conditions. This type of observation motivates the need for an approach to management that includes dynamic reference points that reflect the variable marine environment and a coupled social-ecological system. Identifying such ecosystem reference points in relation to climatic variables or key ecological species is a primary goal, but a critical gap, at this time in many PICES member countries. To move forward on this front, we need 1) methodologies for determining how ecological (*e.g.*, trophic) interactions can be directly included in establishing reference points, 2) an examination of how climate variability and change might (should?) be incorporated into the determination of biological reference points, and 3) a methodological framework for identifying non-linearities, that might lead to surprises, in common ecosystem indicators.

Terms of Reference

1. Describe the societal needs and goals that underlie the establishment of reference points across PICES member nations, and determine those that are comparable;
2. Examine data availability for geographic areas and time periods of particularly strong climate influence and fisheries dependence within specific North Pacific ecosystems, fish stocks, and fishing communities;
3. Develop a heuristic model to examine climate forcing, ecosystem, and fishery responses to selected reference points;
4. Together these elements will contribute to Objective 1.1 of the FUTURE Science Plan to understand what determines “an ecosystem’s intrinsic resilience and vulnerability to natural and anthropogenic forcing”;
5. Assess the efficacy of and refine the terms of reference for a potential future working group supporting FUTURE goals on “Common Ecosystem reference points as a common currency across PICES member countries”;
6. SG will begin discussions on this subject inter-sessionally by correspondence, and will meet for a full day to discuss these issues at PICES-2016.

**Study Group on *Climate and Ecosystem Predictability* (SG-CEP)**  
(approved on October 25, 2015)

Parent: Science Board

Duration: October 2015–November 2016

Statement of Purpose

Building on the outcomes of Prior PICES WGs on North Pacific Climate (WG 27), Ecosystem Indicators (WG 28), and Regional Modeling (WG 29), and collaborations with CLIVAR, we propose a study group that use the knowledge gained on the mechanisms of Pacific climate, regional modeling, and ecosystem indicators to develop terms of reference for a new CLIVAR/PICES joint working group that will focus on climate and ecosystem predictions. Establishing this group, in collaboration with CLIVAR, will allow PICES to integrate CLIVAR expertise and interest in seasonal to decadal predictions. The main goal for establishing a new working group would be to allow PICES to identify and quantify the skill of marine ecosystem predictability associated with climate-driven processes. Ultimately, the activities of this study group will lead to approaches that may facilitate some of the forecasting needs identified by the FUTURE integrative science program of PICES.

Terms of Reference

1. Identify a set of North Pacific climate mechanisms that provide skill in predicting physical, chemical and biological processes that impact the marine ecosystem and its food web dynamics. The identified mechanisms might act on any of the following timescales: intra-seasonal, seasonal, interannual, decadal and climate change.
2. Identify a set of North Pacific ecological indicators and/or marine ecosystem functional responses of fish and shellfish, which are impacted by the forcing processes identified in TOR1. This step will connect the forcing processes identified in TOR-1 to population/ecological processes impacting harvested species in the North Pacific.
3. Identify modeling frameworks for climate and ecosystem predictability. The SG will identify a set of modeling frameworks and existing model outputs (*e.g.*, IPCC-class climate models) that can be used to evaluate the predictability dynamics identified in TOR 1 and 2. To do so, the SG will leverage outcomes and products developed by WG 29.
4. Develop TORs for a potential new Joint PICES/CLIVAR working group on Climate and Ecosystem Predictability.
5. Showcase an example of short-term regional climate predictions. For PICES-2016 in San Diego, the SG will present an example of a short term prediction system that can be used to accomplish the science goals of FUTURE. This example will provide an important approach for developing predictions of different ocean ecosystems in the North Pacific.

**Joint PICES-ICES Working Group on *Climate Change and Biologically-driven  
Ocean Carbon Sequestration (WG 33)***  
(approved October 25, 2015)

PICES Parent Committee: BIO

Duration: October 2015–October 2018

Overview

Carbon sequestration is among the important earth-ecosystem services provided by the oceans. Atmospheric CO<sub>2</sub> that is taken up by phytoplankton can be transformed by the pelagic food webs into various organic materials, some of which are exported from the surface and sequestered in coastal shelf sediments and the deep ocean, or partly transformed into long-lived dissolved organic compounds. This PICES-ICES Working Group will promote interdisciplinary exchanges among the research communities by bringing together experts who have experience using observational, experimental and modeling approaches to characterize and assess one or more of the biologically-driven ocean carbon pumps and their environmental and climate consequences. The working group has long term objectives of improving prediction and advice for climate policy and adaptation in the environment of changing climate.

Terms of Reference

1. Document and identify current knowledge about biologically-driven carbon pumps;
2. Compare current approaches and develop standardized protocols for measuring and reporting key parameters and variables during field studies and laboratory experiments on biologically-driven ocean carbon sequestration;
3. Promote international collaboration for developing new experimental approaches and facilities;
4. Integrate results from laboratory and field studies into numerical modeling for forecasting biologically-driven ocean carbon sequestration in the contemporary and future ocean;
5. Hold annual workshops and business meetings at PICES, ICES or both organizations annual meetings.
6. Organize a theme session within a science symposium in year 3 (*ca.* 2018–19 timeframe) to present, discuss and publish forecasts of the effects of climate change on biologically-driven ocean carbon sequestration; the Fourth Climate Effects on the World's Oceans Symposium, tentatively planned for 2018 might be a good venue. Produce a special issue of a scientific journal based on the theme session, or contribute multiple papers to the Symposium special issue;
7. Provide scientific advice to international organizations such as IPCC that might aid in establishing climate policies;
8. Publish a final report summarizing the results of the WG as a jointly published Scientific Report in both PICES and ICES.

**Joint PICES-ISC Working Group on *Oceanographic Conditions and the Distribution and Productivity of Highly Migratory Fish (WG 34)***  
(approved October 25, 2015)

PICES Parent Committee: FIS

ISC Parent Committee and Working Group: Plenary Committee; Albacore Working Group

Duration: January 2016–December 2018

Statement of Purpose

The proposed Joint Working Group will collaborate on deriving habitat models relating albacore tuna distributions to oceanographic conditions. Albacore tuna is the most temperate highly migratory species and much of its range overlaps the PICES domain. In addition, the stock is considered healthy and capable of supporting current exploitation thus environmentally-driven distribution and productivity changes should be more easily discernible from signals related to direct human impacts (fishing). The proposed Joint Working Group will also investigate mechanisms regulating albacore productivity by relating large-scale climate indices that describe North Pacific Ocean states to albacore tuna recruitment indices and demographic parameters.

Terms of Reference

1. Promote research between PICES and ISC communities directed at understanding oceanographic conditions that provide suitable habitat for large, highly migratory pelagic fishes (specifically albacore tuna) in the North Pacific Ocean;
2. Facilitate communication, regular exchange of information and organization of meetings to discuss and publish data, methodologies and results of research outlined above;
3. Identify relevant environmental and distribution data sets for derivation of habitat models for albacore tuna, and if available for other key large pelagic fish species. Use these data to develop habitat models (and quantify model uncertainty), that identify oceanographic conditions that drive distribution of albacore tuna and predict fishery CPUE ‘hot spots’;
4. Identify relevant climate indices, demographic parameters and recruitment indices for investigation of climate driven variability in ocean state and productivity of albacore tuna, and if available for other key large pelagic fish species. Use these data to investigate linkages between large-scale climate indices and fish productivity.
5. Hold three workshops, one each year of the duration of the Working Group: with the first and third workshops held in conjunction with the PICES Annual Meeting (PICES-2016, USA and PICES-2018, Japan), and the second workshop held in conjunction with the ISC Plenary Meeting (July 2017, location TBD). Reports of these workshops will be jointly published by PICES and the ISC;
6. Produce peer-reviewed publications of scientific results;
7. Publish a final report summarizing the results of the WG as a PICES Scientific Report.

**Section on *Marine Birds and Mammals* (S-MBM)**  
(approved October 25, 2015)

Parent Committee: BIO

Goals

- 1) Provide information and scientific expertise to the PICES Community and the FUTURE Program, as well as to BIO and other scientific and technical committees when requested, about the biology and ecological roles of marine birds and mammals (MBMs) in the PICES region;
- 2) Identify important problems, scientific questions, and knowledge gaps for understanding the impacts of climate change and anthropogenic factors on MBMs and ecosystems in the PICES region through Workshops, Theme Sessions and Scientific Reports;
- 3) Assemble information on the status and key demographic parameters of MBMs, and contribute to the Status Reports and Outlooks—and improve collaborative, interdisciplinary research with MBM experts and the PICES scientific community.

Core Elements of S-MBM Implementation Plan Phases (3 years in duration)

- Understand the top-down effects of MBMs on North Pacific Ecosystems;
- Further knowledge on the bottom-up forcing of MBMs abundance and distribution;
- Determine the response of MBMs to changes in climate.

*Phase 1: 2015-2017 – Top Down*

- Compile a database on seabird and marine mammal diets, and population abundance in the North Pacific.
- Prepare Scientific Report summarizing diets of seabirds and marine mammals (MBMs) in the North Pacific including a full bibliography of data sources, reports and publications.
  - The report will also contain the review of sessions and workshops that will be held in 2016 and 2017 related to variations in diets of MBMs.

*Phase 2: 2017-2019 – Bottom-up and Synthesis*

- Prepare a report on the effects of climate-induced changes in prey quantity and quality on the consumption of prey by seabirds and marine mammals in the North Pacific.
- Communicate and integrate science through international symposiums and peer-reviewed literature
  - Publish results in peer reviewed literature;
  - Serve as symposium/session co-convenors;
  - Assist in preparing and convening workshops and working groups to achieve MBM goals;
  - Strengthen existing and develop new collaborations with PICES and other international organizations including IWC, CLIOTOP-IMBER, and the World Seabird Union.

## GC Endnote 8

Suggested activities and products for the 25<sup>th</sup> anniversary of PICES

Activity/product <sup>1</sup>	Potential cost, CAD <sup>2</sup>	Priority, H/M/L <sup>3</sup>	Potential “in-kind” or monetary contribution <sup>4</sup>
Book “ <i>The Journey with PICES</i> ” (author’s honorarium and travel, and purchasing copies)	~80,000		
Special Issue of <i>Progress of Oceanography</i> (open access)	30,000–40,000		
Video on PICES accomplishment for non-scientific audience (managers, general public)	~12,000		
Video on PICES accomplishment for scientific audience	~12,000		
Documentary on PICES science for national educational broadcasting	~100,000		
Website development (back end and some functional improvements)	15,000–30,000		
Website development (design)	?		
PICES timelines (static poster depiction)	5,000–10,000		
PICES timelines (interactive web-based depiction)	?		
PICES photo album: 25 photo pages that depict 25 years of PICES (pdf version)	10,000–15,000		
PICES photo album: 25 photo pages that depict 25 years of PICES (hard copies)	?		
Lecture series on PICES accomplishments (recorded and web posted option)	? (inexpensive)		
Lecture series at the 2017 PICES/ICES ECS Conference	?		
Lecture series (tour to several locations)	?		
Travel to PICES-2016: special guests	~20,000		
Travel to PICES-2016: plenary speakers	~20,000		
Travel to PICES-2016: early career scientists	~30,000		
Anniversary Gala	~20,000		
Predicting/forecasting exercise	?		
memorabilia	~10,000		

<sup>1</sup> Add any other activities as you see appropriate

<sup>2</sup> Add dollar amount instead of “?”, if possible

<sup>3</sup> Indicate your ranking for the proposed activity/product as high (H), medium (M) or low (L)

<sup>4</sup> Monetary contribution could be through PICES or directly from national agency

<sup>5</sup> Provide any additional comments/clarifications in your cover message

**Original and proposed PICES logos**



**PICES**

Existing PICES logo



Proposed PICES logo – as reviewed at PICES-2015 and before additional requested changes were made.



***GC Endnote 10*****Executive Committee of Council for evaluating the Executive Secretary performance**Terms of reference

1. The Executive Committee will complete an annual review of the Executive Secretary performance by April 1 each year, following the general guideline for executive positions in the Canadian public service, and will report to Council at each Annual Meeting;
2. The review will include a written description of achievements for the previous year and tasks for the coming year, along with an overall evaluation of the achievements;
3. The evaluation will be used to set the level of performance pay, following the Canadian policy for executives.

Membership

The Executive Committee will be chaired by the PICES Chairman, with the Past Chairman, Vice-Chairmen and Chairman of the F&A Committee as members. The Canadian delegate will also be included as a member if not already included through a chairmanship role.