

*GC Appendix A***2014 Governing Council decisions****2014/A/1: 2013 Auditor's Report**

Council accepted the audited accounts for *FY* 2013.

**2014/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 instructed the F&A Chairman and Executive Secretary to continue working on the request 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)). In conducting additional analyses there should be greater consideration by the Secretariat in quantifying the activities that are needed to support expert groups at annual and inter-sessional meetings, co-sponsorship of a conference, or any other activity that requires use of Secretariat services so that the consequences of future changes (up or down) in overall financing for the Secretariat can be more clearly understood.

**2014/A/3: Budgetary considerations**

- i. Council accepted the estimated accounts for *FY* 2014.
- ii. Council approved the *FY* 2015 budget of \$884,000. The amount of \$129,200 will be transferred from the Working Capital Fund to balance the budget, setting the total annual contribution at \$754,800, and the 2015 annual contribution at \$125,800 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 2014 expenses and restore the Trust Fund to the level of \$110,000.
- v. Council agreed to allocate a portion of the funds (estimated at \$64,624) available from the completed projects in the Working Capital Fund as of December 31, 2014, for the development of the PICES integrative science program "*Forecasting and Understanding Trends, Uncertainty and Responses of North Pacific Ecosystems*" (FUTURE). The remaining funds from the completed projects (estimated at \$20,000) are to be allocated for activities related to the 25<sup>th</sup> Anniversary of the Organization.
- vi. Council agreed to earmark \$25,000 of reserve operating funds in the Working Capital Fund for the 2017 PICES/ICES Conference for Early Career Scientists and \$50,000 for activities related to the 25<sup>th</sup> Anniversary of the Organization.
- vii. Council approved: (1) a lump sum employer contribution of \$20,000 from the *FY* 2015 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* 2014 surplus in the General Fund, as determined by the Auditor's Report for 2014; and (3) this practice be continued until PICES receives the next actuarial valuation, which is currently expected in 2017.

**2014/A/4: Future PICES Annual Meetings and 2014 inter-sessional Science Board meeting**

- i. Council approved the proposal from China to hold the 2015 PICES Annual Meeting from October 15–25, 2015, in Qingdao, and China's request for \$40,000 to partially cover costs for this meeting. A site visit to China by the staff of the Secretariat in early 2015 is required to finalize the venue selection.
- ii. Council accepted the offer from the United States to host the 2016 PICES Annual Meeting in San Diego, California, with the dates and specific venue to be proposed in spring 2015.
- iii. Council requested Russia to confirm by March 31, 2015 their intention to host the 2017 PICES Annual Meeting in Vladivostok.

- iv. Council agreed to keep the same registration fee structure for PICES-2015 as for PICES-2010 through PICES-2014:

| 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 Korea in Busan, in May 2015.

#### **2014/A/5: Twenty-Fifth Anniversary of PICES**

- i. Council reiterated the importance for each Contracting Party to raise at least \$25,000 for the 25<sup>th</sup> Anniversary of the Organization (Decision 2013/A/5(i)).
- ii. Council instructed the Executive Secretary to create a separate encumbered fund for the 25<sup>th</sup> Anniversary with the initial amount of \$70,000 that includes \$20,000 from the completed projects and \$50,000 of earmarked reserve operating funds in the Working Capital.
- iii. Considering that several members are expected to rotate off the Anniversary Planning Committee (APC), Council requested Canada and the United States to appoint new APC members by January 31, 2015.

#### **2014/A/6: PICES Strategic Plan**

Council agreed that an updated Strategic Plan might be a useful contribution to the PICES 25<sup>th</sup> anniversary celebration and approved the establishment of a Study Group on *Revising the PICES Strategic Plan* (SG-RSP), under direction of Council, to review and propose revisions, if necessary, to the Strategic Plan for the Organization to ensure that it reflects the vision of all Contracting Parties for the direction of PICES over the next 5–10 years. The membership and Terms of Reference for the Study Group are listed in *GC Appendix B*.

#### **2014/A/7: PICES Intern Program**

- i. After receiving the Executive Secretary's summary report on the implementation of the Intern Program since its inception in 2000 (Decision 2013/A/7(iii)), Council decided to continue the Program and approved raising the stipend to \$3000 per month, effective January 1, 2015.
- ii. 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 2015/2016 term. Following the existing rotation cycle, China was requested to nominate an intern by February 28, 2015.
- iii. Council instructed the Executive Secretary to invite Contracting Parties to provide voluntary contributions to the Trust Fund to support the Intern Program in 2015 and beyond.

#### **2014/A/8: Severance pay**

- i. Council agreed to freeze accruals of severance pay for employees of the PICES Secretariat on January 1, 2016, and tasked the F&A Chairman, Executive Secretary and Chairman of PICES to develop a plan for implementing this change on the effective date or as soon as is practical thereafter.
- ii. Independently, Council instructed the F&A Chairman, Executive Secretary and Chairman of PICES to conduct a 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 2015 and beyond.

The implementation plan and review should be circulated to Contracting Parties at least one month prior to the 2015 PICES Annual Meeting.

#### **2014/A/9: Election of Chairman and Vice-Chairman**

- i. Council unanimously elected Dr. Laura Richards (Canada) as the Chairman of PICES for a second 2-year term (2014–2016). Accordingly, Dr. Tokio Wada (Japan) remains the Past-Chairman of PICES.
- ii. Council unanimously elected Dr. Chul Park (Korea) as the Vice-Chairman of PICES for a second 2-year term (2014–2016).

**2014/A/10: Appointment of F&A Committee Chairman**

Council re-appointed Dr. John Stein (U.S.A.) as the Chairman of the F&A Committee for a second 2-year term (2014–2016).

**2014/A/11: Staffing the PICES Executive Secretary position**

Council unanimously supported a candidate for the Executive Secretary position recommended by the Committee established at the 2013 PICES Annual Meeting (Decision 2013/A/12(ii)), and instructed the Chairman of PICES to make an offer. The new Executive Secretary will be announced once the offer is signed.

**2014/S/1: PICES Integrative Science Program, FUTURE**

Council approved changes in the governance structure of the PICES FUTURE program and the establishment of the Scientific Steering Committee (SSC) to provide leadership in implementing the program. The SSC will be composed of 12 members, including two Co-Chairmen, representing the Eastern and Western Pacific. Council agreed that the SSC will begin its work with a slightly modified version of the Terms of Reference (TOR) recommended in the report of the FUTURE Evaluation Team (see *GC Appendix B*). These TOR will be reviewed and revised as needed at the first SSC meeting.

**2014/S/2: Arctic-based activities**

Based on the comments from Contracting Parties on PICES involvement in Arctic-based activities, Council agreed that PICES does not need to initiate Arctic-related activities, but could engage in modest cost activities that pertain to Arctic interactions with the PICES convention area.

**2014/S/3: 2015 PICES Annual Meeting**

- i. The following scientific sessions are to be convened at PICES-2015:
  - ¾-day Science Board (SB) Symposium on “*Change and sustainability of the North Pacific*”;
  - 1-day Topic Session on “*The 2014/15 El Niño and anomalous warming of the North Pacific: What happened?*”;
  - 1-day Topic Session on “*Change and sustainability of fisheries: Lessons from eastern-western cultures for global food security*” (co-sponsored by ICES);
  - 1-day Topic Session on “*Indicators of emerging pollution issues in the North Pacific Ocean*”;
  - 1-day Topic Session on “*Ocean circulation of the Western Pacific and its response to climate change*”;
  - 1-day Topic Session on “*Ocean Acidification Observation Network for the North Pacific and adjacent areas of the Arctic Ocean*”;
  - 1-day Topic Session on “*Past, present, and future climate in the North Pacific Ocean: Updates of our understanding since IPCC AR5*”;
  - 1-day Topic Session on “*Marine ecosystem services and economics of marine living resources*” (co-sponsored by ICES);
  - ½-day Topic Session on “*Experiences and lessons learned in managing shared/transboundary stock fisheries*”;
  - ½-day Topic Session on “*The human dimensions of harmful algal blooms*”;
  - ½-day BIO Contributed Paper Session;
  - ½-day FIS Contributed Paper Session;
  - ½-day MEQ Contributed Paper Session;
  - 1-day POC Contributed Paper Session.
- ii. The following workshops are to be convened at PICES-2015:
  - 1-day PICES/NOWPAP Workshop on “*Identifying major threats to marine biodiversity and ecosystems in the North Pacific*”;
  - 1-day Workshop on “*Linking climate change and anthropogenic impacts to higher trophic levels via primary producers*”;
  - 1½-day Workshop on “*Contrasting conditions for success of harmful raphidophyte species in the western and eastern Pacific – A comparative ecosystem approach*”;

- 1-day Workshop on “*Marine environment emergencies: Detection, monitoring, response and impacts*” (co-sponsored by ICES);
  - ½-day Workshop on “*Monitoring and assessment of environmental quality of radioactivity in the North Pacific*”;
  - 1-day Workshop on “*Best practices for and scientific progress from North Pacific Coastal Ocean Observing Systems*”.
- iii. The following business meetings are to be held at PICES-2015:
- 3-hour overture meeting and 1½-day meeting of Science Board, preceded by a joint meeting with the FUTURE SSC;
  - 2-hour overture meetings and ½-day meetings of Scientific and Technical Committees;
  - 2-hour overture meeting and ½-day meeting of the SB Section on *Human Dimensions of Marine Systems* (S-HD);
  - 1-day meeting of the joint PICES/ICES Section (Strategic Initiative) on *Climate Change Effects on Marine Ecosystems* (S-CCME);
  - 1-day meeting of the MEQ Section on *Ecology of Harmful Algal Blooms in the North Pacific* (S-HAB);
  - 1-day meeting of the POC/BIO Section on *Carbon and Climate* (S-CC);
  - 1-day meeting of the POC Working Group on *North Pacific Climate Variability and Change* (WG 27);
  - 2-day meeting of the MEQ/BIO Working Group on *Development of Ecosystem Indicators to Characterize Ecosystem Responses to Multiple Stressors* (WG 28);
  - 1-day meeting of the POC Working Group on *Regional Climate Modeling* (WG 29);
  - 1-day meeting of the MEQ Working Group on *Assessment of Marine Environmental Quality of Radiation around the North Pacific* (WG 30);
  - 1-day meeting of the MEQ Working Group on *Emerging Topics on Marine Pollution* (WG 31);
  - 2-day meeting of the BIO Working Group on Working Group on *Biodiversity of Biogenic Habitats* (WG 32);
  - 1-day meeting of the BIO Advisory Panel on *Marine Birds and Mammals* (AP-MBM);
  - ½-day meeting of the POC/MONITOR Advisory Panel for a *CREAMS/PICES Program in East Asian Marginal Seas* (AP-CREAMS);
  - 1-day meeting of the MONITOR/TCODE Advisory Panel on *North Pacific Coastal Ocean Observing System* (AP-NPCOOS);
  - ½-day meeting of the SB Study Group on *Socio-Ecological-Environmental Systems* (SG-SEES);
  - ½-day meeting of the SB Study Group on *North Pacific Ecosystem Status Report-3* (SG-NPESR3);
  - ½-day meeting of the FUTURE SSC, preceded by a ½-day FUTURE Symposium;
  - 1-day meeting of the Project Science Team for the PICES/MAFF project on “*Marine ecosystem health and human well-being*”;
  - 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*”.

#### 2014/S/4: Inter-sessional symposia/sessions/workshops/meetings

The following inter-sessional events are to be convened/co-sponsored in 2015 and beyond:

- i. Symposia/conferences:
- 3<sup>rd</sup> PICES/ICES/IOC Symposium on “*Effects of climate change on the world’s oceans*”, March 21–27, 2015, Santos, Brazil;
  - NPAFC Symposium on “*Pacific salmon and steelhead production in a changing climate: Past, present, and future*”, May 17–19, 2015, Kobe, Japan (co-sponsored by PICES);
  - International Symposium on “*Harmful algal blooms and climate change*”, May 19–22, 2015, Göteborg, Sweden (co-sponsored by PICES);
  - 9<sup>th</sup> International Conference on Marine Bioinvasions, January 26–29, 2016, Sydney, Australia (co-sponsored by PICES);
  - ICES 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);

- 6<sup>th</sup> ICES/PICES Zooplankton Production Symposium on “*New challenges in a changing ocean*”, May 9–13, 2016, Bergen, Norway;
  - PICES/ICES Symposium on “*Drivers of small pelagic fish resources*”, March 6–11, 2017, Victoria, Canada.
- ii. Joint Theme Sessions:
- ICES/PICES (S-CCME) Session on “*Impacts of climate change on marine ecosystems and their services*” at the International Scientific Conference on “*Our common future under climate change*”, July 7–10, 2015, Paris, France (in preparation for the 21<sup>st</sup> UNFCCC Conference of the Parties (COP21), November 30–December 11, 2015, Paris, France);
  - ICES/PICES Theme Sessions on “*Ecosystem monitoring in practice*” (Session C), “*Managing marine ecosystem services in a changing climate*” (Session G), and “*Ocean acidification: understanding chemical, biological and biochemical responses in marine ecosystems*” (Session H) at the 2015 ICES Annual Science Conference (September 21–25, 2015, Copenhagen, Denmark).
- iii. Workshops and meetings:
- 2-day Project Co-Chairmen’s meeting for the PICES/MoE project on “*Effects of marine debris caused by the Great Tsunami of 2011*”, February 25–26, 2015, Sidney, Canada;
  - 3-day inter-sessional meeting of the FUTURE Scientific Steering Committee, March 1–3, 2015, La Jolla, U.S.A.;
  - 3-day meeting of the Project Science Team for the PICES/MoE project on “*Effects of marine debris caused by the Great Tsunami of 2011*”, March 16–18, 2015, Honolulu, U.S.A.;
  - 3-day inter-sessional Science Board meeting, May 18–20, 2015, Busan, Korea;
  - 3-day international workshop on “*Ecosystem projection model inter-comparison and assessment of climate change impacts on global fish and fisheries*”, August 10–12, 2015, Princeton, U.S.A.
- iv. Capacity development events:
- 3<sup>rd</sup> PICES/ICES Conference for Early Career Scientists, spring 2017, Korea.

### **2014/S/3: Travel and representation at the meetings of other organizations/programs**

- i. 2015 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 2014/S/1(ii)).
- ii. Inter-sessional events:
- PICES (TCODE) representative to participate in the 23<sup>rd</sup> Session of the IOC Committee on International Oceanographic Data and Information Exchange (IODE) and the Celebration Session and Scientific Conference on the occasion of the 10<sup>th</sup> Anniversary of the opening of the IODE Project Office (March 16–21, 2015, Bruges, Belgium);
  - PICES associate member of SCOR WG 140 on *Biogeochemical Exchange Processes at the Sea-Ice Interfaces* to attend the WG 140 meeting (March 20, 2015, Lucca (Barga), Italy, in conjunction with the Gordon Research Conference on “*Polar shelves and shelf break exchange in times of rapid climate warming*”);
  - PICES leadership, convenor and SSC members to attend the 3<sup>rd</sup> PICES/ICES/IOC Symposium on “*Effects of climate change on the world’s oceans*” (March 21–27, 2015, Santos, Brazil);
  - PICES representative to participate in the 23<sup>rd</sup> NPAFC Annual Meeting (May 11–15, 2015, Kobe, Japan) and three invited speakers to attend the NPAFC Symposium on “*Pacific salmon and steelhead production in a changing climate: Past, present, and future*” (May 17–19, 2015, Kobe, Japan);
  - PICES convenor to participate in the International Symposium on “*Harmful algal blooms and climate change*” (May 19–22, 2015, Göteborg, Sweden);
  - PICES convenor (S-CCME Co-Chairman) of the joint ICES/PICES Session on “*Impacts of climate change on marine ecosystems and their services*” to attend the International Scientific Conference on “*Our common future under climate change*” (July 7–10, 2015, Paris, France);
  - PICES representative to participate in the 28<sup>th</sup> Session of the IOC (Intergovernmental Oceanographic Commission of UNESCO) Assembly (June 18–25, 2015, Paris, France);

- PICES representatives and convenors for the three joint Theme Sessions to participate in the ICES Annual Science Conference (September 21–25, 2015, Copenhagen, Denmark);
- 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 representative to participate in the 20<sup>th</sup> NOWPAP (Northwest Pacific Action Plan) Intergovernmental Meeting (December 2015, Beijing, China);
- PICES convenor and invited speaker to attend the 9<sup>th</sup> International Conference on Marine Bioinvasions (January 26–29, 2016, Sydney, Australia).

#### 2014/S/5: Publications

- i. The following publications are to be produced in or submitted to primary journals in 2014–2016:
  - Special issue of *Progress in Oceanography*, dedicated to Dr. Bernard Megrey, on modeling and observational approaches to understanding marine ecosystem dynamics (Guest Editors: E. Curchitser, S.I. Ito, M. Kishi, M. Peck and K. Rose) to be published in 2015;
  - 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) to be published in late 2015 or early 2016;
  - Special issue of *Archives of Environmental Contamination and Toxicology* based on selected papers from the PICES-2014 MEQ Topic Session on “*Marine debris in the ocean: Sources, transport, fate and effects of macro- and micro-plastics*” to be submitted in March 2015 and published in late 2015 or early 2016;
  - Manuscript on “*Developing ecosystem indicators for responses to multiple stressors*” by Working Group 28 (Lead Author: J. Boldt) to be published in *Oceanography* in late 2014 or early 2015;
  - Review paper based on findings from the 2013 PICES/ICES/GEOHAB workshop on “*Harmful algal blooms in a changing world*” (Lead Author: M. Wells) to be published in *Harmful Algae* in 2015;
  - 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 2015;
  - 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 2015.
- ii. The following publications are to be produced in the PICES Scientific Report series in 2015–2016:
  - 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 2015;
  - 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 2015;
  - 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 late 2015 or early 2016;
  - 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 late 2015 or early 2016;
  - Final Report of the Working Group 29 on *Regional Climate Modeling* (Editors: C-J. Jang and E. Curchitser) to be published in late 2015 or early 2016;
  - 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 late 2015 or early 2016.
- iii. Other publications to be produced in 2015 include:
  - Poster for PICES-2015 (October 15–25, 2015, Qingdao, China);
  - Books of Abstracts for the 3<sup>rd</sup> PICES/ICES/IOC Symposium on “*Effects of climate change on the world’s oceans*” (March 21–27, 2015, Santos, Brazil), International Symposium on “*Harmful algal*

*blooms and climate change*” (May 19–22, 2015, Göteborg, Sweden) and PICES-2015 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. 23, No. 1) and summer (Vol. 23, No. 2) of 2015;
- Outreached brochure based on the PICES Scientific Report No. 47 (2014) on “*Economic and social impacts of HABs on aquaculture and fisheries*”.

#### **2014/S/6: Future of current PICES expert groups**

- i. The following expert groups completed their terms of reference and were disbanded:
  - Study Group on *Biodiversity Conservation* (SG-BC);
  - Joint PICES/NPAFC Study Group on *Scientific Cooperation in the North Pacific Ocean* (SG-SC-NP).
- ii. Due to the changes in the governance structure of the PICES Integrative Science Program (FUTURE), the following expert groups were disbanded:
  - FUTURE Advisory Panel on *Anthropogenic Influences on Coastal Ecosystems* (AP-AICE);
  - FUTURE Advisory Panel on *Climate, Oceanographic Variability and Ecosystems* (AP-COVE);
  - FUTURE Advisory Panel on *Status, Outlooks, Forecasts, and Engagement* (AP-SOFE).
- iii. The Advisory Panel on the *Continuous Plankton Recorder Survey in the North Pacific* (AP-CPR) was disbanded, and CPR activities will be coordinated by the Technical Committee on Monitoring (MONITOR) directly. To implement this, a new item was added to MONITOR’s terms of reference: “*Review and advise Science Board on annual operations and outcomes of the North Pacific Continuous Plankton Recorder Survey, including advice on parameters to be measured and possible linkages to other North Pacific marine monitoring initiatives and programs.*” The Principle Investigator for the CPR Survey in the North Pacific, Dr. Sonia Batten (SAHFOS), will serve as *ex-officio* member of MONITOR.
- iv. The lifespan of the Study Group on *Socio-Ecological-Environmental Systems* (SG-SEES) was extended for 1 year (until December 2015) to develop a workshop proposal entitled “*Towards a transdisciplinary approach in coastal SEES*”.
- v. To complete its terms of reference, the lifespan of the Working Group on *Development of Ecosystem Indicators to Characterize Ecosystem Responses to Multiple Stressors* (WG 28) was extended for 1 year (until December 2015). The draft of the WG 28 final report will be prepared by PICES-2015.
- vi. Based on the review of their activities, the lifespan of the following Sections was extended for 3 years (until December 2017):
  - Section on *Ecology of Harmful Algal Blooms in the North Pacific* (S-HAB);
  - Section on *Human Dimensions of Marine Systems* (S-HD);
  - Joint PICES/ICES Section on *Climate Change Effects on Marine Ecosystems* (S-CCME).
- vii. The lifespan of the Advisory Panel on *Marine Birds and Mammals* (AP-MBM) was extended for 5 years (until December 2019) to conduct a project on “*Climate and trophic ecology of marine birds and mammals*”.
- viii. The lifespan of the Advisory Panel for a *CREAMS/PICES Program in East Asian Marginal Seas* (AP-CREAMS) was extended for 5 years (until December 2019) to continue fostering international cooperation on research, monitoring and capacity building, with the main focus on the EAST-II region (Yellow Sea and East China Sea).

#### **2014/S/7: New PICES expert groups**

- i. The following expert groups, with terms of reference as described in *GC Appendix B*, were established:
  - Joint PICES/NOWPAP Study Group on *Scientific Cooperation in the North Pacific Ocean* (SG-SCOOP), under direction of Science Board (approved inter-sessionally);
  - Study Group on *North Pacific Ecosystem Status Report* (SG-NPESR3), under direction of Science Board;
  - Advisory Panel on *North Pacific Coastal Ocean Observing Systems* (AP-NPCOOS), under direction of the Technical Committee on Monitoring and Technical Committee on Data Exchange;
  - Working Group on *Biodiversity of Biogenic Habitats* (WG 32), under direction of the Biological Oceanography Committee.

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- ii. The joint PICES/ISC Study Group on *Scientific Cooperation in the North Pacific Ocean*, with terms of reference as described in *GC Appendix B*, was approved in principle, pending formal confirmation from ISC (International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean).

### **2014/S/8: Chairmanship and membership for Science Board, Standing Committees and expert groups**

- i. Due to the changes in the governance structure of the FUTURE Program, the Chairmen of FUTURE Advisory Panels were expected to cease their Science Board membership. Dr. Phillip Mundy (AP-SOFE) rotated off Science Board. Drs. Steven Bograd (AP-AICE) and Hiroaki Saito (AP-COVE) will continue serving on Science Board as Co-Chairmen of the FUTURE SSC.
- ii. Dr. Tsuneo Ono (Japan) was approved as the Co-Chairman of the Section on *Carbon and Climate* (S-CC) to replace the late Dr. Toshiro Saino (Japan);
- iii. Dr. Shin-ichi Ito (Japan) was approved as the PICES Co-Chairman of the PICES/ICES Section (Strategic Initiative) on *Climate Change Effects on Marine Ecosystems* (S-CCME) to replace Dr. Suam Kim (PICES/Korea). Dr. Anne Hollowed (USA) will continue as the second PICES Co-Chairman.

### **2014/S/9: Relations with other organizations and programs**

Council approved the revised *Standing List of International and Regional Organizations and Programs* and agreed with the identified priorities for interaction in 2014–2015 (see *GC Appendix B*).

**GC Appendix B****Study Group on Revising the PICES Strategic Plan (SG-RSP)**

(approved October 25, 2014)

**Parent Committee:** Governing Council**Duration:** January 2015–October 2016**Terms of Reference**

1. Review the current PICES Strategic Plan, the FUTURE Implementation Plan, and Action Plans of PICES Committees;
2. Review the strategic plans of other relevant international organizations such as ICES;
3. Consider the views of Contracting Parties on the priorities for marine scientific research in the North Pacific Ocean over the next 5-10 years;
4. Propose revisions to the PICES Strategic Plan (if necessary) in time for consideration by Council at PICES-2016.

**Membership**

The membership of the Study Group includes: the Chairman of PICES (serves as SG-RSP Chairman), the Past-Chairman and Vice-Chairman of PICES, the Chairman and Vice-Chairman of Science Board, and one representative from any Contracting Party that is otherwise not represented on the Study Group (China, Russia and the United States). The Executive Secretary and Deputy Executive Secretary serve as *ex-officio* members of the Study Group.

**Scientific Steering Committee (SSC) for the PICES Integrative Science Program, FUTURE**

(approved on October 26, 2014)

**Parent Committee:** Science Board

The Terms of Reference for the FUTURE SSC recommended by the FUTURE Evaluation Team (below) will be reviewed and revised as needed at the first SSC meeting.

**Terms of Reference**

1. Provide leadership and scientific direction to implement the PICES FUTURE program;
2. Report semi-annually to Science Board on progress achieved by the FUTURE science program, and to identify impediments that hinder progress, and to recommend solutions/actions to enable progress;
3. Work with PICES Standing Committees and Expert Groups to ensure collective and integrated delivery of FUTURE results;
4. Integrate, promote and stimulate national activities around the vision statement and core science questions of FUTURE;
5. Identify and facilitate interactions with national/international research programs from which FUTURE could benefit;
6. Ensure that FUTURE research and products translate into high level impacts for PICES and its member countries.

**Study Group on North Pacific Ecosystem Status Report (SG-NPESR)**  
(approved October 26, 2014)

**Parent Committee:** Science Board  
**Duration:** January 2015–October 2016

**Terms of Reference**

1. Develop an implementation plan for the by PICES-2015 that:
    - a. resolves outstanding concerns of Standing Committees in consultation with Committee Chairmen;
    - b. address comments of independent peer reviewers;
  2. Report on progress at the 2015 inter-sessional Science Board meeting;
  3. Present the implementation plan to Science Board at PICES-2015;
  4. Convene an inter-sessional NPESR workshop in 2016 to review candidate time series and methods of production;
  5. Present report on the status of NPESR in a plenary session at PICES-2016.
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**Advisory Panel on North Pacific Coastal Ocean Observing Systems (AP-NPCOOS)**  
(approved October 26, 2014)

**Parent Committees:** MONITOR and TCODE

**Terms of Reference**

1. Develop and advise about best practices for coastal ocean observing systems (examples of topics to be considered include: observing platforms, sensors and sensor calibration, data quality control, user interfaces to data and information products, data delivery to users, data archiving);
  2. Convene workshops/sessions to engage those involved in coastal ocean observing systems from around the North Pacific;
  3. Advise on linkages between coastal ocean observing systems and both PICES activities (*e.g.*, FUTURE Science Program, North Pacific Ecosystem Status Report) and open-ocean observatories (*e.g.*, Argo).
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**Working Group on Biodiversity of Biogenic Habitats (WG 32)**  
(approved October 26, 2014)

**Parent Committee:** BIO  
**Duration:** January 2015–December 2017

**Terms of Reference and Workplan**

Year 1:

- Compile data on the distribution of coral and sponge taxa, and associated fish and invertebrate assemblages in the North Pacific within National Exclusive Economic Zones (EEZs) and facilitate their submission to appropriate biodiversity databases (*e.g.*, Ocean Biogeographic Information System (OBIS));
- Compile data on key variables (temperature, velocity, ocean acidification, slope, aspect) hypothesized to influence coral and sponge distribution and diversity and catalogue sources of multibeam/swathe bathymetry data for distribution modeling within National EEZs;
- Hold a WG meeting in conjunction with the PICES Annual Meeting.

Year 2:

- Review modeling approaches to predict the potential distributions of species and habitat suitability for corals and sponges (*e.g.*, MaxEnt, Boosted Regression Trees, or high resolution bathymetry-based models) within National EEZs;
- Identify environmental and ecological predictors of patterns in the distribution and biodiversity of coral, sponge and associated taxa within National EEZs;

- Convene a session on biogenic habitat distribution and diversity at the PICES Annual Meeting;
- Hold a WG meeting in conjunction with the PICES Annual Meeting.

Year 3:

- Review and propose potential indicators for assessing and monitoring diversity of biogenic habitats;
- Review and document associations between commercially important fish and invertebrate species and biogenic habitats;
- Prepare scientific reports for dissemination of results;
- Hold a WG meeting in association with the PICES Annual Meeting.

**Joint PICES/NOWPAP Study Group on *Scientific Collaborations in the North Pacific***  
(approved July 15, 2014)

**Parent Committee:** Science Board

**Duration:** July 2014–October 2015

**Purpose:** To develop a framework of enhanced collaboration between the two organizations to serve as the basis for longer-term strategic planning.

**Terms of Reference**

1. Review existing and planned scientific activities of each organization;
2. Develop a list of potential areas of cooperation;
3. Convene a meeting/workshop for the following purposes:
  - a. improve understanding of the science activities of each organization;
  - b. review scientific topics from TOR (1) to identify areas of common interest;
  - c. develop a framework for cooperation between NOWPAP and PICES that lists categories of joint activities and the rationale for each, including the benefits to each organization from the joint activity, and identify priorities for joint activities within categories;
  - d. recommend processes for implementing TOR (3c);
  - e. recommend approaches to develop a strategic plan for cooperation and mechanisms to periodically update that plan.
4. Prepare a final Study Group report for distribution by the NOWPAP and PICES Secretariats by fall 2015.

**Joint PICES/ISC Study Group on *Scientific Collaborations in the North Pacific***  
(approved in principle October 26, 2014)

**Parent Committee:** Science Board

**Duration:** January 2015–October 2015

**Purpose:** To develop a framework of enhanced collaboration between PICES and ISC (International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean) to achieve a greater understanding of pelagic ecosystem structure and variability, and its effect on the dynamics and production of Pacific pelagic fish populations, leading to the advancement of stock assessment research.

**Terms of Reference**

1. Review existing and planned scientific activities of each organization;
2. Develop a list potential areas of cooperation;
3. Convene a meeting/workshop for the following purposes:
  - a. improve understanding of the science activities of each organization;
  - b. review scientific topics from TOR (1) to identify areas of common interest;
  - c. develop a framework for cooperation between ISC and PICES that lists categories of joint activities and the rationale for each, including the benefits to each organization from the joint activity, and identify

- priorities for joint activities within categories;
- d. recommend processes for implementing TOR (3c);
  - e. recommend approaches to develop a strategic plan for cooperation and mechanisms to periodically update that plan.
4. Prepare a final Study Group report for distribution by the ISC and PICES Secretariats by fall 2015.
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#### 2014-2015 Standing List of International and Regional Organizations and Programs

|              |  |
|--------------|--|
| AMAP         | Arctic Monitoring and Assessment Program   |
| AOOS         | Alaska Ocean Observing System  |
| APEC-MRC     | Marine Resources Conservation Working Group, Asia Pacific Economic Cooperation               |
| APEC-FWG     | Fisheries Working Group, Asia Pacific Economic Cooperation                                   |
| APFIC        | Asia-Pacific Fishery Commission  |
| APN          | Asia Pacific Network for Global Change Research  |
| Argo*        | International Program for deployment of profiling floats                                     |
| BEST-BSIERP* | Bering Sea Ecosystem Study   |
| CeNCOOS      | Central and Northern California Ocean Observing System                                       |
| CERF         | Coastal and Estuarine Research Federation  |
| CLIVAR*      | Climate Variability and Predictability Program   |
| ESSAS*       | Ecosystem Studies of Sub-Arctic Seas   |
| EVOSTC*      | <i>Exxon Valdez</i> Oilspill Trustee Council   |
| FUTURE EARTH | Research Initiative for Global Sustainability  |
| FAO          | Food and Agriculture Organization  |
| GESAMP*      | Group of Experts on Scientific Aspects of Marine Pollution                                   |
| GOOS*        | Global Ocean Observing System  |
| IAMSLIC      | International Association of Marine Science Libraries  |
| IASC         | International Arctic Science Committee   |
| IATTC        | Inter-American Tropical Tuna Commission  |
| ICES*        | International Council for the Exploration of the Sea   |
| IMBER*       | Integrated Marine Biogeochemistry and Ecosystems Research                                    |
| IMO          | International Maritime Organization  |
| IOC*         | Intergovernmental Oceanographic Commission   |
| IOCCP*       | International Ocean Carbon Coordinated Project   |
| IODE         | International Oceanographic Data and Information Exchange                                    |
| IPCC*        | Intergovernmental Panel on Climate Change  |
| IPHC         | International Pacific Halibut Commission   |
| ISC*         | International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean |
| IWC          | International Whaling Commission   |
| NAFO         | Northwest Atlantic Fisheries Organization  |
| NANOOS       | Northwest Association of Networked Ocean Observing Systems System                            |
| NEAR-GOOS    | North East Asian Regional Global Ocean Observing System                                      |
| NOWPAP*      | Northwest Pacific Action Plan  |
| NPAFC*       | North Pacific Anadromous Fish Commission   |
| NPFC         | North Pacific Fisheries Commission   |
| NPFMC        | North Pacific Fishery Management Council   |
| NPRB*        | North Pacific Research Board   |
| PaCOOS       | Pacific Coast Observing System   |
| PAG          | Pacific Arctic Group   |
| POGO         | Partnership for Observing the Global Oceans  |
| PSC          | Pacific Salmon Commission  |
| PSG          | Pacific Seabird Group  |
| SAHFOS*      | Sir Alister Hardy Foundation for Ocean Science   |
| SCCOOS       | Southern California Coastal Ocean Observing System   |

|          |   |
|----------|---|
| SCOPE    | Scientific Committee on Problems of the Environment   |
| SCOR*    | Scientific Committee on Oceanic Research  |
| SOLAS*   | Surface Ocean Low Atmosphere Study  |
| SPC      | South Pacific Commission  |
| START    | South Asian Regional Committee for the System for Analysis, Research and Training                                       |
| WCPFC    | Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean |
| WCRP     | World Climate Research Programme  |
| WESTPAC* | Cooperative Study of the Western Pacific, IOC Sub Committee for the Western Pacific                                     |
| WPFMC    | Western Pacific Fishery Management Council  |