# **2024 Report of FIS Committee**

The Fisheries Science (FIS) Committee held two Business Meetings: October 15, 2024 (via Zoom) and October 26, 2024 (Honolulu, HI, USA at the PICES Annual Meeting, with Zoom options for non-travellers); agendas *FIS Endnote 2*. All PICES member nations, with the exception of China, were represented at the October 15, 2024 virtual meeting; both China and Russia were not represented at the October 26, 2024 meeting (*FIS Endnote 1*). FIS Committee requests additional Chinese membership (Peng Sun, Ocean University China, sunpeng@ouc.edu.cn).

REPORTS OF FIS-SPONSORED EXPERT GROUPS

#### Working Group 53: Joint PICES/ICES Sustainable Pelagic Forage Communities

Membership for WG53 was established in June 2024. Chris Rooper (Canada), Co-Chair provided an overview of the first few months for the WG and its workplan and planned activities for the upcoming 3 years. A leadership meeting was held online on July 15, 2024 for communicating among co-chairs of PICES WG-53 and those of ICES WGSPF including the ex-chairs. WG53 held its first Business Meeting on September 30, 2024 (19 members attended) and The WG will be organized by Task Force, with each team assigned defined activities to achieve the ToR. At PICES 2024, there will be a hybrid Workshop on October 25. The WG plans to submit a Topic Session proposal for PICES 2025 with the request for travel support for 2 Invited Speakers and 2 ECOP Presenters.

WG53 requested endorsement for a 3-day intersessional meeting (hybrid) February 25-27 2025 in Lisbon, Portugal. No financial support is being requested, and a host in Lisbon has already been identified.

FIS Committee supports this request for a 3-day hybrid intersessional meeting, with no financial support.

# Working Group 45: Joint PICES/ICES Working Group on Impacts of Warming on Growth Rates and Fisheries Yields (GRAFY)

Shin-ichi Ito (Japan), Co-Chair of WG45, reported that all ToR have been completed for WG45. As WG45 is a Joint PICES/ICES Working Group, a final report has been submitted to fulfill ICES requirements: Joint ICES-PICES Working Group on Impacts of Warming on Growth Rates and Fisheries Yields (WGGRAFY; outputs from 2023 meeting). ICES Scientific Report 6:70. 48 pp. <a href="https://doi.org/10.17895/ices.pub.26356351">https://doi.org/10.17895/ices.pub.26356351</a>. The publication has both the ICES and the PICES logo on the cover page to denote the co-sponsorship of this WG. The PICES Co-Chairs request that this Scientific Report be reviewed and considered as also fulfilling the PICES requirements for a final report. The PICES Secretariat noted that there are several Joint PICES/ICES Expert Groups, and it is the preference of the Secretariat that a single final report be produced and published in either the ICES Scientific Report series or the PICES Scientific Report series, but not necessarily in both.

FIS Recommends that ICES Scientific Report 6:70. 48 pp. be approved as the final report for WG45.

# Working Group 44: Joint PICES/ICES Working Group on Integrated Ecosystem Assessment for the Northern Bering Sea—Chukchi Sea

Libby Logerwell (USA), Co-Chair of WG44, provided an overview of the final report for this WG. The Working Group was able to develop a conceptual model for the Northern Bering Sea-Chukchi Sea ecosystem, which will serve as a good starting point for IEA to be undertaken by others. An accomplishment of this WG is the incorporation of Multiple Ways of Knowing. Sarah Wise (USA) provided an overview of the approach taken by the WG to incorporate Indigenous Knowledge into the IEA using the co-production of knowledge

(CPK) framework. The framework was applied by a team of Indigenous knowledge holders and subject matter experts.

FIS Recommends that the final report submitted by WG45 be approved and published as a PICES Scientific Report.

#### Joint PICES/ICES Section on Climate Change Effects on Marine Ecosystems (S-CCME)

Kirstin Holsman (USA), Co-Chair of S-CMME provided an overview of the past year accomplishments, which included the following highlights:

- S-CCME/SICCME chairs Mills, Baudron, and Holsman met regularly with ICES Ecosystem
   Overview teams to discuss the process to bring climate sections into EOs for each ICES region. Chairs
   also met with team members to discuss EBM onramps for climate advice as part of the NOAA
   Climate Ecosystem and Fisheries Initiative.
- S-CCME/SICCME chairs Mills, Baudron, and Holsman led a session at the ICES ASC 2024: Climate
  impacts and adaptation responses in marine fishery systems. Chairs also co-sponsored a PICES
  Annual Meeting 2024 Topic Session on innovation in using integrated approaches to detect and
  manage for the effects of climate change tipping points and critical thresholds in marine ecosystems.
- S-CCME/SICCME chairs Mills and Holsman participated in the UN Law of the Sea Panel in Washington DC, USA in spring 2024. Mills and Holsman continue to be involved in projects, workshops, and initiatives aimed at advancing climate adaptation methods and approaches to increase fishing community resilience to climate change. Chair Holsman continues to coordinate with UN decade programs including BECI, and S-CCME members continue to be involved in coordination and advancement of climate integrated advice through: National programs (e.g., Aquatic Climate Change Adaptation Services program, Canada; Climate Ecosystem and Fisheries Initiative, USA), UN Decade programs (e.g., Ocean to climate Seamless Forecasting System (China), Ocean Negative Carbon Emission (China), SUPREME (USA)), and integrated modeling projects or assessments focused on evaluating climate change impacts, risk and adaptation.

PICES members of S-CCME held a virtual Business Meeting on October 16, 2024 and a hybrid meeting on October 27, 2024 in Honolulu, HI.

The Phase 4 Implementation Plan for S-CCME will end in 2025, and a new Phase 5 plan will need to be drafted. The FIS Committee highlighted that a draft Phase 5 Implementation Plan will need to be handed into PICES by September 2025 for approval of Parent Committees at their 2025 Business Meetings.

The S-CCME Chair highlighted that new PICES Chairs will be required; both PICES Chairs have terms that are coming to an end, and neither will seek re-election. S-CCME elected Dongwha Sohn (Korea, Pukyong National University, ohndongwha@pusan.ac.kr) as Co-Chair replacing Xiujuan Shan (China). In 2025, S-CCME will elect a new Co-Chair to replace Co-Chair Holsman (USA). S-CCME also requests additional membership from Russia (Kirill Kivva, Russian Federal Research Institute of Fisheries and Oceanography, irill.kivva@gmail.com) and Ex-Officio appointment of Viv Tulloch (BECI Team, PICES).

FIS recommends endorsement of the S-CCME elected Co-Chair Dongwha Sohn (Korea, Pukyong National University, ohndongwha@pusan.ac.kr). FIS recommends the appointment of Kirill Kivva and Vic Tulloch as members of S-CCME.

#### PICES EXTERNAL REVIEW COMMITTEE REPORT

The FIS Committee discussed the <u>report of the PICES External Review Committee</u>. Notable issues that FIS commented on include:

- Role: the term 'actionable science' has no definition and is vague. This term could be interpreted as science advice, which is a role that many PICES' member nations do not wish to have PICES undertake. This would represent a large departure from PICES' current role, and it should not replace the pure research that forms the role of PICES. Additionally, each member nation has different scientific advice needs, processes for receiving advice, and regulations for implementing advice and managing resources. Given that PICES Science Plan and Expert Groups rely on multinational membership, focusing PICES Role to provide science advice would be extremely difficult. FIS supports the recommendation for redesigning NPESR and suggests that a new version could address the recommendation for scientific advice to be provided by PICES. The FIS Committee acknowledges that the public and resource managers want to know what is going on in the ocean, and PICES does need to provide information for others to make decisions. The Committee agreed that there is no need to change PICES Role but there is a need to enhance the communication of our science to interested parties, in a format that is understandable for each audience.
- Organizational structure: The FIS Committee discussed the proposed replacement of Science Board with an Integrative Science Plan would reduce the redundancy of have a separate Science Plan Steering Committee. This is however, just rephrasing and the simple suggestion should be that all Committees support the ISP (which they already do) and that Science Board implements the ISP (which it currently does not). The suggested thematic committees have shortcomings and FIS members noted that much disciplinary work or membership will be lost with broadly-themed committees.
- The recommendation for PICES to develop and implement simple and efficient means to facilitate communication, cooperation, and integration within the organization is something that members and FIS Committee have been suggesting for quite some time. However, it is disappointing that the Review Committee did not have any specific ideas to achieve this.
- Administration: FIS Committee members did not support the view that Annual Meetings are too long and need to be shortened. FIS members agreed that the Annual Meetings were too dense, with too many concurrent meetings, workshops, and sessions. Shortening the duration of the Annual Meeting would make this worse. One aspect of the Annual Meeting that should be addressed is the poor communication of native English speakers; slides routinely contain too much text for non-English speakers to read while listening to presentations that are delivered too quickly. This is particularly apparent at Business Meetings when Expert Groups often fail to provide concise, easy-to-follow presentations.
- <u>Capacity Development</u>: The PICES Secretariat needs to have support for greater capacity.

The FIS Committee supports the establishment of a new Study Group at Governing Council Meeting 2024 to discuss how to address the Review Committee's recommendations, including feasibility and requirement assessments.

UPDATE ON PROTOCOL OF PICES 2025 SESSION AND WORKSHOP PROPOSAL SELECTIONS

At the 2023 Meeting, Governing Council chose a new protocol for session and workshop proposal submissions and selections for the 2025 Annual Meeting. Proposals will be accepted until November 15, 2024. Science Board will hold a virtual meeting in early December to make recommendations for accepted proposals. By the end of 2024, Governing Council will approve or reject Science Board recommendations. These new deadlines are an attempt to allow proposal ideas to be developed at the Annual Meeting; previously, proposals would be

due prior to the Annual Meeting. This requires the FIS Committee to decide prior to early December on proposals that request FIS sponsorship. FIS members agreed that best approach would be to hold a virtual meeting at the end of November, to allow for Committee discussion. Additionally, the proposals will be shared online and members will fill out the 'Pros' and 'Cons' columns so that members can read and consider points of view prior to the virtual meeting.

#### ACTIVITIES TO ADDRESS FIS ACTION PLAN

The FIS Action Plan was updated in 2024, and many of the activities outlined in the plan have been undertaken or are ongoing activities for FIS Committee. There are some elements of the plan that FIS has not undertaken, and members suggested a couple of activities. For Action 6.1: Develop outreach to local coastal communities, FIS Committee could reach out to local fishery management councils or fishery advisory groups to see if they have any activities that overlap in timing with Annual Meetings for FIS members to attend. For Action 8.1: Improvement opportunities for young scientists, FIS Committee could organize a tour of local agency facilities at each Annual Meeting for FIS Members and ECOP to attend. Goal 9: Create education and training opportunities remains an outstanding goal with no activities identified.

#### PRESENTATIONS FROM OTHER ORGANIZATIONS

### International Scientific Committee for Tuna and Tuna-like Species (ISC)

Robert Ahrens (Plenary Chair) provided an overview of the objectives and activities of the ISC. The ISC was established in 1995 through an intergovernmental agreement to enhance scientific research and cooperation for conservation and rational utilization of the species of tuna and tuna-like fishes which inhabit the North Pacific Ocean during part or all of their life cycle using the best available science. While ISC remains an independent regional fishery organization, in 2007, it entered into agreement to serve as the scientific provider to the Western Central Pacific Fisheries Commission. The ISC is responsible for providing stock assessment and status advice for migratory oceanic species, namely Albacore tuna, Pacific bluefin tuna, Swordfish, Blue marlin, Striped marlin, Blue shark, and Shortfin mako shark. The ISC and PICES have a Memorandum of Understanding (MoU), that will expire in 2025. The FIS Committee noted that there has been no cosponsorship or formal collaborative projects with the ISC since the 2018 Annual Meeting which indicates that perhaps a MoU should not be renewed. Robert Ahrens will bring this topic up for discussion at the upcoming ISC Plenary Meeting in July 2025.

#### Pacific Salmon Commission (PSC)

Catherine Michielsens (Director, Fisheries Management Science) provided background on the bilateral commission between Canada and US. A recent accomplishment of the PSC that may be of interest to FIS members is the provision of Pacific salmon data publicly available on the PSC website. The data can be visually explored and downloaded. The data are currently limited to Fraser sockeye and pink salmon with Chinook salmon to be added shortly. Also of note, the PSC has a monthly seminar series on environmental variation and implications for salmon management, readiness assessment for climate change and uncertainty. The PSC is interested in how to incorporate Traditional Ecological Knowledge into its science expertise. The PSC and PICES established a MoU in 2022 for cooperation, but, to date, activities have been limited to attendance at meetings. The FIS Committee discussed how to develop linkages between PSC and PICES and suggestions included inviting PICES members to present on climate or ocean change research that would be of interest to PSC staff and Commissioners. Additionally, the FIS sponsored Working Group 44: Integrated Ecosystem Assessment for the Northern Bering Sea-Chukchi Sea has just submitted their Final Report, which outlines a framework for including Traditional Ecological Knowledge into science advice and ecosystem assessments.

# International Pacific Halibut Commission (IPHC)

The IPHC and PICES renewed a MoU in 2024, and have continued to collaborate on cosponsored workshops at PICES 2019, 2022, and 2023 Annual Meetings. Josep Planas (Biological & Ecosystem Sciences Branch Manager) reported on the Workshop cosponsored with PICES on October 26, 2024 which continues the discussion from previous years' workshops. There is a plan to submit a workshop proposal for the 2025 Annual Meeting. FIS Committee members asked how the workshop results benefit the IPHC as staff cannot always attend. Dr. Planas noted that the results from the 2019 Workshop were published in a Special Issue of Fisheries Research (Volume 259, March 2023) and that the IPHC provides a report back to the Research Advisory Board and the Scientific Review Board. Additionally, the workshop in 2023 was well attended by IPHC staff because the Annual Meeting was held in Seattle, WA.

#### North Pacific Anadromous Fish Commission (NPAFC)

PICES and the NPAFC established a MoU in 1998. William Stansbury (Web and Publications Manager) provided an overview of recent publications that would be of interest to PICES members, particularly Tech Rep 19, 2023, The Status and Trends of Pacific Salmon and Steelhead Trout Stocks with Linkages to their Ecosystem. All publications are available from the NPAFC website. The data from the NPAFC or IYS data mobilization website. PICES and the NPAFC are collaborating on climate change impacts on Pacific salmon by cosponsoring the Basin Events Coastal Impacts project of UNDOS.

### Western Pacific Region Fishery Management Council (WPFMC)

Asuka Ishizaki (Protected Species Coordinator) introduced FIS Members to the objectives of the WPFMC. The US Magnuson-Stevens Fishery Conservation and Management Act (MSA), 1976 established 8 regional fishery management councils in the United States. Each council develops policies to manage fishery resources in US EEZ waters of each region and provide recommendations to the U.S Department of Commerce. The councils prepare fishery management plans and plan amendments for fisheries and resources needing management and provide a forum for discussion and decision making. The council is advised by a Scientific and Statistical Committee. The WPFMC is located in Honolulu and oversees fishery management for American Samoa Archipelago, Mariana Archipelago, Hawaii Archipelago, Pacific Remote Island Areas, and Pacific Pelagic waters.

#### **North Pacific Fisheries Commission (NPFC)**

The framework for collaboration (2019-2024) between PICES and NPFC was updated and requires approval. The collaboration between the two organizations has been fruitful with several successful activities:

- 2023 Topic Session: Seamount biodiversity: vulnerable marine ecosystems (VMEs) and species associated with seamounts in the North Pacific Ocean
- 2022 Topic Session: Environmental variability and small pelagic fishes in the North Pacific: exploring mechanistic and pragmatic methods for integrating ecosystem considerations into assessment and management
- 2020 Topic Session: Implementing a collaborative, integrated ecosystem high seas survey program to determine climate/ocean mechanisms affecting the productivity and distribution of salmon and associated pelagic fishes across the North Pacific Ocean
- 2019 Workshop: The influence of environmental changes on the potential for species distribution shifts and population dynamics of Pacific saury
- 2019 Workshop: Developing a collaborative and integrated ecosystem survey program to determine climate/ocean mechanisms affecting the productivity and distribution of salmon and associated pelagic fishes across the North Pacific Ocean

The updated framework for collaboration (2024-2029) was reviewed by the FIS Committee. Recently, the NPFC adopted a resolution to adapt to climate change and promote resilience in NPFC fisheries and the updated framework has additions to the Climate Change Research area—notably to focus to include factors affecting species' life history parameters (e.g., growth and maturity) and productivity. The NPFC is interested in integration of climate information into stock assessment and management and adaptation of reference points

and control rules to a changing environment. These are also topics of interest to the FIS Committee. The framework identifies the planning of an Ecosystem Approach to Fisheries workshop or session for 2026 Annual Meeting.

FIS Committee recommends that the updated framework of collaboration (2024-2029) be approved.

#### SMARTNET PROGRAM

Steven Bograd (USA, SmartNet) provided an overview of the PICES-ICES joint UNDOS Program Sustainability of **Mar**ine Ecosystems through Global Knowledge **Net**works (**SmartNet**). SmartNet has two overarching objectives:

- 1. Convene global partners through knowledge networks to facilitate research, knowledge generation, and capacity sharing in support of sustainable marine ecosystems in a changing climate.
- 2. Leverage and build upon joint ICES-PICES collaborations to expand our networks and increase resilience of marine and coastal resources and the communities that depend on them.

SmartNet focuses on key scientific themes in which ICES and PICES have expertise and mutual interest—climate change, fisheries and ecosystem-based management, social, ecological and environmental dynamics of marine systems, and coastal communities. SmartNet is in its first year and will be proposing two workshops for the 2025 Annual Meeting.

### BASIN EFFECTS COASTAL IMPACTS (BECI) PROJECT

Kathryn Berry (Science Director) provided an overview of the BECI project of UNDOS. BECI is a multinational interdisciplinary project aiming to inform ocean and coastal management under increasing climate variability by providing decision support based on advanced transboundary ocean and climate change science. BECI was codeveloped by PICES and NPAFC and is hosted by PICES and funded by the Canadian grant BC Salmon Restoration & Innovation Fund. There are several collaborative partners including the North Pacific Fisheries Commission. The overarching objectives of the program are:

- 1. Coordinate international efforts to:
  - Assess climate-driven impacts on transboundary and common fishery resources across the North Pacific
  - Integrate North Pacific data to enhance ecosystem understanding
  - Improve predictions of climate-driven changes at regional and basin scales
  - Support sustainable resource management, protect marine biodiversity, and enhance ecosystem resilience.
- 2. Support NPAFC Science Plan primary goal: "Establish a research framework to develop a mechanistic understanding of the impact of changing climate on salmon abundance and distribution trends in the North Pacific Ocean."

The BECI project hired staff in 2024, has been conducting meetings and workshops to establish a Science Plan which will be drafted by the end of 2024, and will work on drafting an Implementation Plan in 2025. The BECI project has been funded only through 2025, so efforts are already underway to seek longer-term funding. The BECI project held a workshop on October 26, 2024 to initiate collaboration across the northeast Pacific on building an ensemble of marine ecosystem models.

#### FUTURE SCIENCE PROGRAM

Sukjung Kang (Korea) provided an update on the FUTURE Science Program and the activities of the Steering Committee. Notable for the 2024 Annual Meeting is the FUTURE Open Science Meeting which will be held on Monday (October 28, 2024) after the opening session, replacing the SB Symposium. A special panel on the future of PICES will be held on Friday November 1, 2024. FUTURE SSC has been successful in submitting a journal publication on the impact of FUTURE Science Plan on the direction of PICES Science (Takemura et al., submitted, *ICES Journal of Marine Science*).

EARLY CAREER SCIENTIST AWARD FOR BEST PRESENTATION (ORAL OR POSTER)

FIS Committee members Jackie King, Naoki Tojo, and Libby Logerwell volunteered to judge ECOP Poster presentations and Jessica Miller and Steve Linley volunteered to judge ECOP Oral presentations in S11: Impacts of warming-induced changes in body sizes on marine fish ecology and their consequences for ecosystems and associated fisheries.

# FIS Endnote 1

# FIS Committee participation list

October 15, 2024 Participants	October 21, 2024 Participants
FIS Committee Members	FIS Committee Members
Jackie King (Canada, Chair)	Jackie King (Canada, Chair)
Naoki Tojo (Vice-Chair, Japan)	Naoki Tojo (Vice-Chair, Japan)
Chris Rooper (Canada)	Chris Rooper (Canada)
Nobuaki Suzuki (Japan)	Nobuaki Suzuki (Japan)
Hwansung Ji (Korea)	Hwansung Ji (Korea)
Mikhail Stepanenko (Russia)	Sukgeun Jung (Korea)
Steve Lindley (USA)	Steve Lindley (USA)
Libby Logerwell (USA)	Libby Logerwell (USA)
Jessica Miller (USA)	Jessica Miller (USA)
Observers	Observers
Sonia Batten (PICES Secretariat)	Sei-Ichi Saitoh (Japan, ESSAS)
Shin-ichi Ito (Japan, WG45)	Alex Zavolokin (NPFC)
Paul Spencer (USA, WG45)	Minje Choi (Korea)
Kirstin Holsman (USA, S-CCME)	Robert Ahrens (USA, ISC)
Sarah Wise (USA, WG44)	Kitty Simonds (WPRFMC)
Robert Ahrens (USA, ISC)	Catherine Michielsens (PSC)
Sukyung Kang (Korea, SB)	Sukyung Kang (Korea, SB)
Oleg Katugin (Russia)	William Stanbury (NPAFC)
	Steven Bograd (USA, SmartNet)
	Kathryn Berry (PICES, BECI)
	Josep Planas (IPHC)
	Rebecca Asch (USA, WG53)
	Robert Ahrens (USA, ISC)

#### FIS Endnote 2

#### FIS Committee provisional meeting agendas

October 15, 2024 (via Zoom)

East Pacific Tuesday, October 15, 17:00-21:00 PDT	Japan & Korea Wednesday, October 16, 09:00-13:00 JST & KST
China Wednesday, October 16, 08:00–12:00 CST	Russia (Vladivostok) Wednesday, October 16, 10:00-14:00 VLAT

### 1. Welcome and Introductions

# 2. Adoption of Agenda

#### 3. Reports of FIS-sponsored Expert Groups

- a. Report from Working Group 53: Sustainable Pelagic Forage Communities (Chris Rooper)
- b. Final Report from Working Group 45: Joint PICES/ICES Working Group on Impacts of Warming on Growth Rates and Fisheries Yields (GRAFY) (Shin-ichi Ito)
- c. Final Report from Working Group 44: Integrated Ecosystem Assessment of the Northern Bering and Chukchi Seas (Libby Logerwell, Sarah Wise)
- d. Report from Section: Climate Change Effects on Marine Ecosystems (S-CCME, Kirsten Holsman)

# 4. <u>Discussion of PICES External Review Committee Report</u> (ExternalReviewReport\_2024.pdf)

- FIS Committee response to the External Review is requested for Science Board
- The suggested process for PICES response to the Review Report:
  - Establish a New Study Group at GC-2024 to discuss how to address the recommendations, including feasibility and requirement assessments
  - o Appoint SG members and start the activity by late winter/early spring
- Additionally, individual Members can provide feedback directly via https://forms.office.com/r/ZDcPfGwy1m

### 5. Update on Protocol of PICES-2025 Session/Workshop Proposal selections

• Proposals mid-October through mid-November

- Mid-Late Nov: Committees to review/rank the proposals through virtual meeting/review sheet
- Early Dec: SB to hold a virtual meeting to make recommendations for the proposals
- Year-end: GC to approve the SB recommendation.
- **6.** <u>Brainstorming on Activities to address FIS Action Plan</u> (<u>Addendum 3</u> or <u>Action Plan on PICES Website</u>), specifically:
  - Action 6.1: Develop outreach to local coastal communities
  - Action 8.1: Improve opportunities for Early Career Professionals, particularly in the area of fisheries sciences
  - Goal 9: Create education and training opportunities
- 7. Review Draft Agenda for In-Person FIS Business Meeting Saturday, October 26

## October 26, 2024 (Hybrid meeting)

Honolulu Saturday, October 26, 18:00-20:30 Hawaii Convention Center, Room 305B Honolulu, USA	Japan (Tokyo) & Korea (Seoul) Sunday, October 27, 13:00-15:30 JST & KST
Russia (Vladivostok) Sunday, October 27, 14:00-16:30 VLAT	China (Beijing) Sunday, October 27, 12:00-14:30 CST
Canada (Vancouver) Saturday, October 26, 2023, 21:00-23:30	

# 1. Welcome and Introductions

- 2. Adoption of Agenda
- 3. ESSAS Open Science Meeting June 24-26, 2025 in Japan (Sei-Ichi Saitoh)
- 4. Presentations from Other Organizations
  - a) International Scientific Committee for Tuna and Tuna-like Species (Robert Ahrens)
  - b) Pacific Salmon Commission (Catherine Michielsens)
  - c) International Pacific Halibut Commission (Josep Planas)
  - d) North Pacific Anadromous Fish Commission (William Stanbury)
  - e) Western Pacific Regional Fishery Management Council (Asuka Ishizaki)
  - f) North Pacific Fisheries Commission (Jackie King and Aleksandr Zavolokin)
    - Review updated PICES-NPFC Framework for Enhanced Scientific Collaboration in the North Pacific

#### FIS Recommendation on Acceptance required for Science Board

- 5. UNDOS SmartNet Programme (Steve Bograd)
- 6. UNDOS Project Basin-scale Events to Coastal Impacts (BECI) (Kathryn Berry)
- 7. FUTURE Science Program (Sukyung Kang)
- 8. Early Career Scientist Award for Best Presentation (Oral or Poster)
  - Assignment of FIS Judges for ECOP in FIS sponsored Workshops/Sessions
- 9. Other Business
  - Request from WG53 for 3-day Intersessional Meeting, Lisbon, Portugal