

2022 Report of the Advisory Panel on *Early Career Ocean Professionals*

The Advisory Panel on *Early Career Ocean Professionals* (AP-ECOP) had two business meetings: a meeting held virtually on September 6/7, 2022 and an in-person meeting during PICES-2022 in Busan, Korea, on September 24, 2022. Co-chairs Hannah Lachance and Raphael Roman co-led both meetings and served as rapporteurs. During the virtual meeting the agenda focused on preparations for the PICES 2022 Annual Meeting such as finalizing our workshop agenda and materials, finalizing the ECOP opportunities fliers that were shared before the Annual Meeting and hung by the registration desk at the conference, and finalizing the requests from our Advisory Panel to Science Board. During the in-person meeting the focus was on discussing last minute workshop logistics and gathering consensus on the updated ECOP definition, which was generated by SG-ECOP and further revised by AP-ECOP members, based on Science Board input.

AGENDA ITEM 1

Welcome, introductions, adoption of agenda

The Co-chairs, Hannah Lachance and Raphael Roman, welcomed participants to the meeting, introductions were made (*AP-ECOP Endnote 1*), and agenda reviewed and adopted (*AP-ECOP Endnote 2*).

AGENDA ITEM 2

Updates

- The US ECOP Node under the UN Ocean Decade received the US National Decade Committee “blessing” to continue efforts to formalize as an official node under the UN Ocean Decade [ECOP Programme](#).
- A Japan Node under the UN Ocean Decade ECOP Programme was established in late July 2022 (web page link can be accessed [here](#)).
- Korean ECOPs (referred to as KO-ECOP) had their first overview meeting on August 22, 2022, led by Dr. Seung-Tae Yoon, Dr. Jae-Hyoung Park, Dr. Minkyong Kim and others through ZOOM. Approximately 30 ECOPs participated in this virtual meeting. There is a plan to hold regular KO-ECOP meetings and the co-leads expect that more Korean ECOPs will join their activities throughout 2023.

AGENDA ITEM 3

Overview of tasks before PICES-2022

Report/Requests to FUTURE and Science Board

- Requests
 - Include more demographic information in the registration process
 - If it will take more time for Secretariat then definitely mention
 - Space on website for mentorship platform
 - Hana Matsubara (Japan) recommended as the 4th co-chair
- Requests approved by FUTURE/Science Board/Governing Council:
 - 11.1. New PICES ECOP definition** (See agenda item 5 for details)

11.2. Proposed measures for PICES ECOP Promotion

11.2.1 Demographic data collection and assessment for ECOPs

- To add data entries for ECOPs when registering to Annual Meetings on the PICES online portal. Beyond simply indicating whether or not they are early career scientists (by checking a box), other valuable information that could be collected include, for example:
 - Are you a student?
 - If YES, which degree are you currently pursuing or enrolled in
 - Undergraduate, Master or PhD
 - If NO, please indicate your current position or profession (multiple-choice)
 - PostDoc, Research Associate/Assistant, Research Scientist, Policy Analyst, Economist, Government Scientist, Civil servant, Consultant, Other(s) [open-ended answer]
 - If NO, when did you last graduate from University? [insert YEAR]
 - If NO, what is the highest education level you have obtained?
 - Undergraduate, Master or PhD
 - Which sector(s) do you belong to? (check all that apply)
 - Science & Research (or Academia), Government/Policy, NGO/Non-Profit, UN Agency, CSO, Private business/company, Other(s) [open-ended answer]
 - For how many years have you been attending PICES events? [numeric answer ranging from 0 to 10+]

11.2.2. Upgrade of ECOP membership information

- To append a new “tag”, “label” or “color-code” to identify ECOPs across the membership of all Expert Groups within PICES. Specifically, this “tag”, “label” or “color-code” would be associated with the name of EG members on the PICES website. That way, AP-ECOP would gain a better sense of ECOP representation across the PICES structure.

11.2.3. Mentorship platform on PICES website

- To request assistance in the creation and maintenance of a dedicated webpage for the future mentorship platform we are envisioning within PICES.
 - AP-ECOP will collaborate closely with the Secretariat when implementing one or more of the aforementioned measures for PICES ECOP Promotion.

PICES-2023 workshop/session proposals

- A half-day topic session [later changed to a workshop] on “*Nurturing future generation in fisheries and marine environment science: Collaboration with PICES and Asia Fisheries and Marine Environment Leaders Program (AFIMA Leaders Program)*” was put forward by Korean colleague, Dr. Sangchoul Yi. AP-ECOP member(s) to be added as co-convenor(s). (*AP-ECOP Endnote 3*).
- Joint Sci-Comm/AP-ECOP workshop on “*Creation of clear, crisp, concise fact sheets for PICES Expert Groups*” (*AP-ECOP Endnote 4*)
 - Create 2-pagers for each Expert Group;
 - Small groups working together at a table - generally grouped by Expert Group but open to non-Expert Group members (*e.g.*, ECOPs), which could lead to a joint training/networking aspect;
 - Include a training component of how to communicate internationally (to groups with various languages; without heavily relying on Google translate)
- International Open Science Training Workshop (*AP-ECOP Endnote 5*)
 - Code and sharing of code; collaborative work, *etc.*
 - Openscapes training
 - Discussion in TCODE about exchanging data, *etc.*?
 - Propose/recommend as a separate training opportunity online and inter-sessionally

- SmartNet session/workshop proposal
 - Has ECOP participation/representation but is looking for a co-convenor ECOP from the western Pacific - *no volunteers identified yet*

AGENDA ITEM 4

PICES-2022 Workshop

Raphael Roman reviewed the workshop agenda (which can be downloaded [here](#); or see *AP-ECOP Endnote 5*) and highlighted opportunities for AP-ECOP members to help at the workshop by *e.g.*:

- Helping to introduce Scientific Committees' speakers
- Helping to lead a brainstorming session or break out group (lead conversations at a table)

AGENDA ITEM 5

Opportunity Flyer/PICES-2022 materials

AP-ECOP discussed possible edits to the draft Opportunities for ECOPs flier:

- Add QR code that links to the AP-ECOP website,
- Add QR code for the sign-up form,
- Aim to translate the flier into all PICES member country languages to help increase the audience.

Volunteers to help translate the fliers include:

 - English: Hannah Lachance
 - French: Andi White
 - Japanese: Hiroki Wakamatsu
 - Korean: Saeseul Kim
 - Russian: *no Russian members yet so could not translate this flier*
 - Chinese: *did not have Chinese members respond to this request*
- Additional materials to generate for the PICES-2022 to help with ECOP engagement and outreach:
 - Create a “poster” with our faces and a recommendation to ECOPs to reach out if they see us at the Annual Meeting,
 - PICES-2022 ECOP stickers for name tags to help people identify ECOPs in the crowd and to spur more organic networking. In addition, a smiley sticker was added to a select few name tags for ECOPs to know who to approach if they have questions or want to learn more about PICES and/or ECOP opportunities in PICES.

AGENDA ITEM 6

ECOP definition

The ECOP definition recommended by SG-ECOP is displayed below and was created based on input from the full Study Group as well as through investigating and considering the definition used by other ECOP groups such as the UN Decade ECOP Programme, ICES ECS group (SII ECS), *etc.* The definition initially proposed by SG-ECOP reads as:

- **Self-identified:** Someone who self-identifies as an early career professional and in the beginning of his/her/their career
- **Within 10 years of obtaining a degree or 5 years in a current position:** 10 years or less since obtaining a degree or less than 5 years in a current job or profession

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Science Board communicated their concerns that this definition would be difficult to apply to some ECOP awards such as the [Zhu Peterson Award](#) which has its own definition of ECOP.

- During AP-ECOP's in-person meeting on September 24, 2022, the AP-ECOP members, PICES Secretariat, and the Science Board Chair agreed to put forward a slightly amended version of the ECOP definition:

An ECOP is someone who **self-identifies** as an early career professional in the beginning of their career, **with ten years** or less of professional experience. (Excludes the Zhu-Peterson Award which retains its original criteria.)

AP-ECOP Endnote 1

AP-ECOP participation list

Members

* Hannah Lachance (USA, Co-Chair)
* Raphael Roman (Canada, Co-Chair)
Minkyong Kim (Korea, Co-Chair)
Alexandra Davis (Canada)
Andi White (Canada)
Hana Matsubara (Japan)
Hiroki Wakamatsu (Japan)
* Keyseok Choe (Korea)
Prof. Yoonja Kang (Korea)
* Saeseul Kim (Korea)
* Seung-Tae Yoon (Korea)
* Steven Bograd (USA)
Erin Satterthwaite (USA)
Matthew Savoca (USA)
* Vera Trainer (USA)

Members unable to attend

China: Heping Li, Edmond Sanganyado, Pengbin Wang, Zuhao Zhu
Japan: Shin-ichi Ito, Aoi Sugimoto
Russia: No members from Russia yet

PICES

Sonia Batten (Executive Secretary)
Sanae Chiba (Deputy Executive Secretary)

Stars '*' identify AP-ECOP members who attended both business meetings (virtual and in-person)

AP-ECOP Endnote 2

AP-ECOP meeting agenda

1. Welcome, introductions, adoption of agenda
2. Updates
3. Overview of tasks before PICES-2022
4. PICES-2022 Workshop
5. Opportunity Flyer/PICES-2022 materials
6. ECOP definition

AP-ECOP Endnote 3

Proposal for a Workshop on
“Nurturing future generation in fisheries and marine environment science: Collaboration with PICES and Asia Fisheries and Marine Environment Leaders Program (AFIMA Leaders Program)”
at PICES-2023

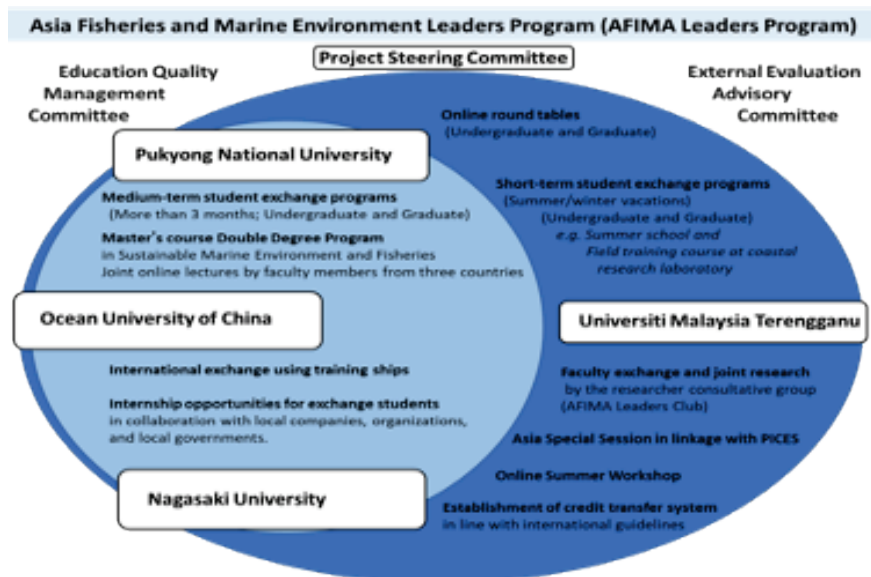
Co-convenors: Sangchoul Yi (Korea), Dohoon Kim (Korea), AP-ECOP member(s) (TBD)

Duration: 0.5 day

Asian waters are an important sea area with a relatively small area intensively used by Korean, Chinese, and Japanese fishing boats, which is exposed to overfishing of fishery resources and severe marine pollution. For the sustainable use of fishery resources and the protection of the marine environment, the understanding of the joint management by all countries concerned and the formation of a consensus for cooperation are necessary. With such recognition, leading universities in the field of fisheries and marine environment in Korea, China and Japan came together to create a joint education program for future young scientists. The program is Asia Fisheries and Marine Environment Leaders Program (AFIMA Leaders Program), aiming to nurture future professionals for the joint management of fishery resources and the marine environment in Asian waters. During upcoming session, we will introduce PICES to session participants (representatives from our partner universities and graduate students), connecting the global scientific community and AFIMA leaders program universities (i.e., faculty of Pukyong National University in Korea, Ocean University of China, and Nagasaki University in Japan, University of Malaysia, Terengganu).

Description of AFIMA Leaders Program

More than 388 students (including 156 students for more than 3 months and 28 double degree students) will participate over five years through undergraduate and graduate student exchanges. Student exchange programs will be implemented in various styles such as short- and medium-term exchanges, graduate school double degrees, international exchange using training ships, and online round tables. As for the double degree, students can basically obtain a Master's degree in Fisheries Science or Environmental Science.



AP-ECOP Endnote 4

**Proposal for a joint AP-SciCom/AP-ECOP Workshop on
“Creation of clear, crisp, concise fact sheets for PICES Expert Groups”
at PICES-2023**

Convenors: 4 convenors to be selected from; Tammy Norgard (Canada), Vera Trainer (USA), Sugimoto Aoi (Japan), Andrea White (Canada), Alexandra Davis(Canada)

Invited speaker: 1 invited speaker/writing coach with expertise in fact sheet development and plain language communication

Duration: 1 day

Fact sheets are an effective communication tool that can be used to describe the accomplishments and future plans of PICES Expert Groups in a clear and concise format. Preparation of such fact sheets would provide an excellent opportunity to deliver an outstanding first impression, educate community members, and increase organizational recognition about the breadth of scientific work being conducted under PICES. Moreover, creating fact sheets will challenge PICES scientists to analyze the goals and objectives of their Expert Groups, and to efficiently describe their achievements concisely and clearly. With impressive fact sheets, interest in PICES Expert Groups will be aroused and end users will understand the key ideas and achievements of the Expert Groups, providing opportunities to promote and celebrate the science being conducted by PICES. It will also provide a simple way to communicate PICES science to potential collaborators and aid them in identifying with which Expert Groups they are most closely aligned, while at the same time sparking interest and encouraging them to ask for more information. The proposed workshop builds upon the 2-day Science Communications workshop in 2022 that had the primary goal of developing videos that describe the accomplishments, needs, and future plans of PICES Expert Groups. An expert writing coach will provide instruction to members of each PICES Expert Group as well as PICES ECOPs on how to: 1. Be strategic and unique in designing fact sheets, 2. Choose a great headline, 3. Select important testimonials and/or briefly communicate results, 4. Use an aesthetically pleasing format, 5. Choose appropriate images, 6. Communicate effectively to an international audience. Participants will work together to develop brief descriptions of PICES Expert Groups to highlight the core features and accomplishments of these groups without overwhelming the reader. Attention will be given to using appropriate language that is understandable and appealing to all participating PICES countries. Completed fact sheets will be posted on the PICES website. In addition, the workshop provides an opportunity for participants to build their science communication skillset which they can take to their own work outside of PICES, thereby advancing the promotion of ocean science more broadly. These skills will be an asset to all participants, particularly early career ocean professionals (ECOPs). Fact sheets from the workshop will be published on the PICES website.

AP-ECOP Endnote 5

**Proposal for International Open Science Training on
“Building effective international collaborations for ocean sustainability”**

Co-Conveners: Hannah Lachance (AP-ECOP); Tammy Norgard (AP-SciCom); Jeanette Gann (TCODE); Emily Lemagie (AP-UNDOS); Evgeniia Kostianaia and/or Raphael Roman (ECOP Programme); Aoi Sugimoto? (TBC) (Human Dimension Committee); Leslie Smith (DOOS)

Objective: Open science and multilingual knowledge sharing is foundational to develop novel solutions to global environmental challenges. This is essential if we want to increase and strengthen transdisciplinary scientific cooperation and trust beyond national borders, by integrating culturally diverse perspectives and practices into our conventional work models. This proposed training series will provide discussion and training on how to ensure successful international collaborations from the start to the end. This training would be open to all career stages, countries, ocean disciplines and would include components on how to form and maintain a robust, diverse collaboration team, ensure best data/code practices are being used, and that the results are being communicated to the correct audiences. By drawing from existing trainings/resources and efforts (*i.e.*, [Openscapes](#); [Journal publications](#); [Open Science](#)) we hope to create a unique and comprehensive training that would foster enhanced collaborative science between disciplines, sectors and cultural contexts. To ensure this training could be as accessible to all PICES member countries (and beyond!) as possible, this training aims to break down language and data sharing barriers at all steps from designing the training, advertising the training, implementing the training, and communicating the outputs of the training.

Time: TBD - Between annual meetings (Spring/Summer2023? Potentially during August-September before PICES-2023)

Location: Virtual and at PICES-2023 (pre-Annual workshop)

Rough plan (what to do and how):

- Host one 3-hour session and two 2-hour sessions on each of the following topics:
 - International Collaboration/Science diplomacy (connect to UN Decade session/workshop at PICES 2023) (*extra hour for thorough roundtable introductions*)
 - International data best practices (connect to TCODE and the International Ocean Best Practices group)
 - Communications (how to highlight your work during and after the collaboration - connect to the PICES-2023 fact sheet workshop)
- Each session would include a panel made up of a PICES member from each member country and from one UN Decade program sharing the unique aspects of how collaborations, data best practices and communication work in their country. The second hour will be discussions amongst participants to allow for networking, brainstorming, *etc.* around how to break down barriers that PICES professionals face when trying to ensure that successful, interdisciplinary, international and open science is conducted.
- The panelists could be a mix of career stages to diversify the perspectives, methods and provide an excellent leadership opportunity for well qualified individuals.

Expected outcome: Participants will walk away with a new or refreshed set of skills to foster enhanced international collaborations within and beyond PICES Expert Groups. The participants will also receive a

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certificate of completion. Additionally, a summary of key take-aways could be constructed and provided as guidance for future PICES collaborations (publicly accessible on PICES website).

Expected participants:

- Interested PICES members from all career stages, backgrounds, member countries, *etc.*
- Interested participants from beyond PICES could include SIDS, ICES, countries in the southern hemisphere, and other UN Ocean Decade Programmes (*e.g.*, DOOS), *etc.*

How do you advertise the events to include diverse participants?:

- Advertise through PICES listserv and be clear that this training is for all career stages (ECOPs - LCOPs); all backgrounds (beginners-experts); and all disciplines
- Advertise through UN Decade listserves/newsletters/stakeholder groups
 - ECOP Programme listserv and social media (Twitter, LinkedIn, Instagram, WeChat)
- Advertise through partner groups (*i.e.*, ICES group, DOOS, APN?)
- Social media - share through PICES social media and have re-shared/re-tweeted by partner organizations (*i.e.*, ICES; Deep Ocean Observing Strategy DOERs Program, ECOP Programme and other UN Decade Actions, Global Stakeholder Forum)
- Targeted outreach to specific partners (*i.e.*, SIDS, Traditional knowledge holders)
- Other professional networks/societies (*e.g.*, TOS, Black in Marine Science)

Funding request: CA\$7,000; funding to support travel for 2 participants of this workshop to attend the PICES-2023 meeting to ensure that fruitful discussions and lessons learned can be shared and incorporated into other parts of PICES and that the training can continue through PICES-2023.

Breakdown of funding request: CA\$3,500 per person for 2 participants' travel.

AP-ECOP Endnote 5

FUTURE Workshop (W4) agenda during PICES-2022
Exploring engagement opportunities for ECOPs within PICES and internationally

Conveners: Raphael Roman (Japan); Hannah Lachance (USA), Erin Satterthwaite (USA)

The global early career ocean professional (ECOP) movement has been gathering significant momentum since the launch of the UN Decade of Ocean Science for Sustainable Development (2021-2030). Within PICES, the success of the 2021 Study Group on ECOPs ([SG-ECOP](#)) led to the establishment of a long-term Advisory Panel ([AP-ECOP](#)), which aims to promote and consolidate the regionally, culturally and professionally diverse perspectives brought by the next generation of ocean leaders across the North Pacific. ECOPs would benefit from greater knowledge sharing, mentorship, training and other professional skills development opportunities (e.g., leadership, science communication, conference organizing, etc.), which PICES has the capacity to offer through their various scientific committees/programs and international partnerships. However, PICES newcomers and well-established ECOPs might not necessarily know how to leverage such opportunities, who to contact and where to find more information about the breadth of scientific activities available within PICES. This workshop aims to fill these gaps and bring the whole PICES community (and esteemed guests) together for an afternoon of networking, learning and brainstorming, with the main objective being to significantly ramp up ECOP engagement within PICES. Key topics that will be discussed include (1) the needs, priorities and challenges that ECOPs face in the North Pacific and beyond, (2) what roles can ECOPs play in PICES Expert Groups, Scientific Programs and intergovernmental initiatives, (3) how to get involved in the UN Ocean Decade through PICES activities, (4) what would a mentorship platform look like, and (5) how to leverage new international connections with other early career networks.

Join us for a stimulating, convivial and inspiring workshop on September 25 from 2-6pm in Panorama Room (16F).

14:00-14:05 Welcome, share agenda – Raphael Roman & Hannah Lachance

14:05-14:15 Early Career Ocean Professionals (ECOPs) and PICES 101 – Hannah Lachance

14:15-15:15 Lightning round of 5 min presentations (“elevator pitches”) to introduce PICES Committees/Programs and discuss cross-pollination opportunities with ECOPs

SmartNet, FUTURE and WG 49 on *Climate Extremes and Coastal Impacts in the Pacific* – Steven Bograd

BIO – Janelle Curtis (*TBC*)

FIS – Jackie King (*TBC*)

HD – Mitsutaku Makino

MEQ – Andrew Ross

POC – Emanuele Di Lorenzo

MONITOR – Sung Yong Kim

TCODE – Jeanette Gann

15:15–16:00 Connecting with international ECOP networks (interactive presentations of 8-10min)

Global ECOP Programme (UN Ocean Decade) – Evgeniia Kostianaia (*video recording*)

ECOP Asia (Regional node of the ECOP Programme) – Raphael Roman

ICES SIIIECS (North Atlantic) – Hannah Lachance (on behalf of the ICES SIIIECS)

Deep Ocean Early Career Scientists (DOERS) – Leslie Smith

16:00-17:00 Networking coffee break (1 hour)

17:00-18:00 Brainstorming session (revolving around the key objectives of AP-ECOP)

- Mentorship platform (sign-up form),
- Future direction of AP-ECOP:

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- How can we better cater to ECOPs across the North Pacific?
- What would you like to see happening in the near-future? (training, workshops, webinars, etc.)
- What has been your experience within PICES so far? What would you like to see improved?
- How can we better engage ECOPs within your country? What is missing? What support do you need?

Desired Outcomes:

- Enhance ECOP engagement and cross-pollination opportunities in PICES and internationally, especially in the context of the UN Ocean Decade,
- Establish new connections and increase awareness of the breadth of PICES scientific activities,
- Strengthen emerging collaborations and leverage synergies with other ECOP networks/communities,
- Provide a welcoming, inclusive and engaging environment for newcomers,
- Facilitate greater interactions between early- and late-career ocean professionals, as well as across sectors, disciplines and cultural contexts.