

POC Committee Meeting Agenda (*DRAFT*)

PICES 26th Annual Meeting, September 2017

Dates: **September 24th, 6:00 pm - 8:00 pm** / **September 27th, 2:00 pm - 6:00 pm**

Venue: Vladivostok, Russia

First half of POC Business Meeting, Sun. Sept. 24, 6-8pm (2 hours)

1. Welcome and introductions remarks (5 min)
2. Membership updates (5 min) (Appendix I)
3. Changes to, adoption of, agenda and appointment of rapporteur (5-10 min)
4. POC Sessions at PICES 2017 (5 min) (Appendix II)
5. **Publications** updates (5 min)
 - Final Report of WG 27 on North Pacific Climate Variability and Change
 - Final Report of WG 29 on Regional Climate Modeling
 - Scientific Report AP-CREAMS PICES Scientific Report Oceanography of the Yellow and East China Seas (EAST-II region)
 - Scientific Report S-CC on Basin-wide Ocean Acidification and De-oxygenation
6. Publications proposals in 2018 and beyond (5 min)
7. **Upcoming meetings** relevant to POC (5 min) (Appendix III)
8. Priority of items with funding implications
9. POC Best Presentation and Poster Awards, Early career judgment for POC (Appendix V)
10. **POC messaging board**, documenting business meetings, topic sessions and workshops
11. **Planning for PICES 2018 & POC Action Items - Part I (7:30-8:00pm)**

Group Dinner on September 24, location TBD

Second half of POC Business Meeting (4 hours), Wed. Sept. 27, 2-6pm

12. **ExGs Progress Reports** and future plans of POC active groups (30 min)
 - S-CCME: Joint PICES/ICES Section on Climate Change Effects on Marine Ecosystems (Jan 2012-2017)
 - S-CC: Section on Carbon and Climate (Oct 2003 - 2016)
 - WG 38: Working Group on Mesoscale and Submesoscale Processes (Nov 2016 - Oct 2019)

- WG 40: Working Group on Climate and Ecosystem Predictability (Jul 2017 - Oct 2020)
- AP-CREAMS: Advisory Panel for a CREAMS/PICES Program in East Asian Marginal Seas (Oct 2015 - Oct 2019)

13. Requests from and to existing ExGs

14. **FUTURE Updates** (5 min)

15. Relationships with other international organizations/programs (45 min) (Appendix VI)

- IOC (Vladimir Ryabinin, v.ryabinin@unesco.org)
- CLIVAR (Annalisa Bracco, abbracco@gatech.edu)
- IMBER (Lisa Maddison, lisa.maddison@imr.no)
- FUTURE EARTH OCEAN (Emanuele Di Lorenzo, edl@gatech.edu)
- ICES (Cornelius Hammer, cornelius.hammer@thuenen.de)
- NPRB (Mathew Baker, Matthew.Baker@nprb.org)
- SCOOS (Clarissa Anderson, clrande@ucsc.edu)
- ESSAS (Sei-Ichi Saitoh, ssaitoh@salmon.sh.hokudai.ac.jp)
- NEAR-GOOS (Vyacheslav B. Lobanov, lobanov@poi.dvo.ru)

16. **NPESR update** - North Pacific Ecosystem Status Report (10 min)

17. **New Proposals** for ExGs, meetings, workshops, symposia, conferences

- Proposal for new PICES ExGs (e.g. WG, SG, Sections)
- Ranking of PICES 2018 proposals (deadline September 26, 2017) (Appendix IV)
- SCOR proposal recommendation and outcomes
 1. FLOTSAM (4.17) -- Floating Litter and its Oceanic Transport Analysis and Modelling
 2. EBUS (3.75) -- Eastern boundary upwelling systems (EBUS): diversity, coupled dynamics and sensitivity to climate change
 3. P-OBS (3.60) -- Integration of Plankton-Observing Sensor Systems to Existing Global Sampling

18. **Planning for PICES 2018 & POC Action Items - Part II (5:20-5:50pm)**

19. Other business

20. Adjourn

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Appendix I: POC Membership status

Canada: James Christian, Michael Foreman (vice-chair), Jennifer Jackson (replaces Charles Hannah)

China: Fangli Qiao, Fan Wang, Lei Zhou

Japan: Daisuke Hasegawa, Shin-ichi Ito, Hiromichi Ueno

Korea: Kyung-Il Chang, Chan Joo Jang, Hee-Dong Jeong

Russia: Vyacheslav Lobanov, Elena Ustinova, Yury Zuenko (Vice Chair)

USA: Steven Bograd, Emanuele Di Lorenzo (Chair), Jerome Fiechter

Appendix II: POC Sessions at PICES 2017

S1: Environmental changes in the North Pacific and impacts on biological resources and ecosystem services

Convenors: Hiroaki Saito (SB) , Se-Jong Ju (BIO) Elizabeth Logerwell (FIS), Keith Criddle (HD), Chuanlin Huo (MEQ), Jennifer Boldt (MONITOR), Emanuele Di Lorenzo (POC), Joon-Soo Lee (TCODE), Steven Bograd (FUTURE), Sukyung Kang (FUTURE), Igor Shevchenko (Russia), Motomitsu Takahashi (Japan),

Invited Speakers:

Mary Hunsicker (NOAA, USA)

Kirill Kivva (Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), Russia)

Kanae Tokunaga (Ocean Alliance, The University of Tokyo, Japan)

James Thorson (NOAA, USA)

Marine ecosystems around the North Pacific are changing. Over the past decade physical, chemical, and biological processes have been altered by climate change and anthropogenic impacts. In response, species' ranges have shifted, disrupting ecosystem goods and services, including fisheries resources upon which communities around the North Pacific depend. Understanding, characterizing and forecasting ecosystem changes will ensure managers and policy makers have the information needed to maintain ecosystem biodiversity, structure and function, and ultimately sustainable utilization of ocean resources. Assessments that use observation-based indicators of ecosystem conditions

coupled with numerical models capable of predicting future marine ecosystem conditions at short (seasonal to interannual), medium (decadal) and long-term (multi-decadal) scales can inform management and policy decisions.

We invite submissions related to characterizing and understanding drivers of North Pacific ecosystem change and their impacts to, and resilience of, ecosystem resources and services. Drivers may include but are not limited to climate change, ocean acidification, coastal eutrophication, aquaculture, fishing, pollution, coastal development, non-indigenous species, and cumulative impacts of multiple stressors. Further, it is recognized that there are inherent trade-offs among multiple-use ocean activities, and mechanisms are needed to resolve these to ensure sustainable use of North Pacific resources and ecosystems. Thus, presentations are welcome that address leading indicators of change in exploited resources (i.e., fisheries stocks), non-linear and threshold responses of trophic linkages from phytoplankton to top predators, and approaches integrating monitoring and modeling to forecast ecosystem responses that can inform management and policy options.

S6: POC/FIS: Interannual variability in marine ecosystems and its coupling with climate projections

Convenors: Yury Zuenko (Russia), Jackie King (Canada), Masami Nonaka (Japan), Hee-Dong Jeong (Korea)

Invited Speakers:

Elena Ustinova (Pacific Fisheries Research Centre (TINRO-Centre), Russia)

PICES has long recognized the importance of climate variability and climate change on marine ecosystems, particularly for multi-decadal scales. However, in fisheries management it is the variability at interannual scale that is of greater immediate interest. This session seeks to explore two aspects of interannual scale variability. First, the mechanisms responsible for year-to-year variability in marine ecosystems including fisheries, so one goal of this session is to encourage presentations that share examples of interannual variability (physics, biology, fisheries) where observations may have provided clues about the responsible mechanisms. A second objective of this session is to engage the climate, ocean and ecosystem modeling communities that are working on interannual to decadal-scales to (1) provide the empirical evidence underlying the assumptions for mechanisms of functional linkages between climate variability and ecosystem response at these temporal scales, (2) to assess the retrospective skill of coupled bio-physical models at multiple temporal scales, and (3) to identify how parameter uncertainty can be transferred from shorter forecasting

frameworks to longer term projection models. Presentations on research that provide mechanistic understanding of observed changes through time, and connect interannual variability in oceanographic processes or ecosystem responses to short-term variability and long-term climate change are encouraged.

S9: POC: Meso-/submeso-scale processes and their role in marine ecosystems

Convenors:

Hikomichi Ueno (Japan), M. Debora Iglesias-Rodriguez (USA), Sachihiko Itoh (Japan), Elena Ustinova (Russia)

Invited Speakers:

Sergey Prants (V.I. Il'ichev Pacific Oceanological Institute (POI), Russia)

Rob Suryan (Oregon State University, USA)

Mesoscale and submesoscale (~1 to 100 km) currents and fronts such as eddies, streamers, filaments and streaks are ubiquitous features of the ocean. These complex but coherent patterns in the sea surface are often captured by satellite imagery and partially reproduced by high-resolution numerical ocean-circulation/biogeochemical models. While the interior structure of these fine-scale features and its dynamics are still in exploration, it has been well-known that there are tight linkages between physics and distribution of marine organisms at these scales, which includes dispersion, patchiness and aggregations of plankton, nekton, birds and mammals. Understanding the structure and physics of these horizontal fine-scale features, their effects on distribution and production of marine organisms, and how they influence the functioning of the marine ecosystem and its services such as fisheries yield and efficiency is necessary in order to assess likely system changes and shifts under a changing climate. This topic session aims to discuss the interaction between physics, chemistry, biology and fisheries of the ocean at the meso- and sub-mesoscale based on observations and modeling. Presentations will include various levels of organization (physics, biogeochemistry, fish/fisheries and other marine predators) from different areas in the PICES region, and participants will be invited to compare differences and discuss the underlying mechanisms.

S11: FIS/POC: Environmental variability in Arctic and Subarctic ecosystems and impacts on fishery management strategies

Convenors: Mikhail Stepanenko (TINRO-Center, Russia), Mikhail Zuev (TINRO-Center, Russia), Thomas Helser (REFM Division, AFSC, Seattle, WA, USA)

Invited Speakers:

Yury Zuenko (Pacific Fisheries Research Centre (TINRO-Centre), Russia)

Environmental variability in Arctic and Subarctic ecosystems affects the recruitment, abundance, behavior and the seasonal spatial distribution of fish and invertebrate populations which present challenges for fishery management strategies. Understanding environmental driven changes in fish populations can be used to improve predictions of assessed populations and may positively impact recreational fishing, commercial harvest and fishery-dependent coastal communities. This session explores the impacts of environmental variability projections to applied fishery problems in Arctic and Subarctic regions and the development of environmentally enhanced strategies of management.

Appendix III: Upcoming Meetings relevant to POC

IMBIZO-5, Oct 2–5, 2017

Marine biosphere research for a sustainable ocean: Linking ecosystems, future states and resource management

Place: Woods Hole Oceanographic Institution, Woods Hole, MA, USA

Sponsors/Organizers: IMBeR, PICES.

<http://www.imber.info/events/imbizos/marine-biosphere-research-for-a-sustainable-ocean-linking-ecosystems-future-states-and-resource-management>

Ocean Science Meeting 2018, Feb 11-16, 2018

Place: Portland, Oregon, USA

Sponsors/Organizations: ASLO, ASLO, TOC

<https://osm.agu.org/2018/>

Marine Debris Symposium, March 12-16, 2018

Sixth International Marine Debris Conference (6IMDC)

PICES/MoE Session: "The risks of marine debris mega-pulse events: Lessons from the 2011 Great Japan Tsunami"

Place: San Diego, CA, USA

Sponsors/Organizers: NOAA and UN Environment, PICES, Ministry of the Environment of Japan (MoE)

<http://internationalmarinedebrisconference.org/>

4th International Symposium on Climate Change, June 4-8, 2018

The Effects of Climate Change on the World's Oceans

Place: Washington DC, USA

Sponsors/Organizers: ICES, PICES, IOC, NOAA Fisheries

<http://meetings.pices.int/meetings/international/2018/climate-change/Background>

PICES-2018 Annual Meeting, Oct 25 - Nov. 4, 2018

Toward integrated understanding of ecosystem variability in the North Pacific

Place: Yokohama, Japan

Sponsors/Organizers: PICES

Appendix IV: Proposed Sessions and Workshops PICES 2018 (draft)

Proposal can be submitted here:

https://www.pices.int/logon/default.aspx?ReturnUrl=%2fsecure%2fupdate_profile.aspx%3fa%3dp&a=p

Toward integrated understanding of ecosystem variability in the North Pacific

Oct 25 - Nov. 4, PICES-2018 Annual Meeting

Place: Yokohama, Japan

Sponsors/Organizers: PICES

The North Pacific marine ecosystem is an assemblage of many local marine ecosystems characterized by regional-specific environmental conditions and biological structures. The

status of regional ecosystems is subject to the influence of local changes in various factors as well as interactions with adjacent local marine ecosystems and modifications by basin-scale processes. In recent decades, changes attributable to the influence of global warming have become more apparent, including extreme events in the atmosphere and the ocean that threaten marine ecosystems. Climate projections show monotonic increases in ocean warming and increased frequency of extreme events, such as marine heat waves. Measures to mitigate climate change and to achieve sustainable use of marine resources are integral to the Sustainable Development Goals adopted by the United Nations in 2015. Adaptation to present and anticipated marine ecosystem change is essential to enable humans to use ecosystem services in a sustainable manner. Consequently, policy makers need information about the status of regional marine ecosystems and forecasts of how they will change. Meeting that need requires information based on an integrated understanding of ecosystem variability in the North Pacific.

We encourage submission of papers on mechanisms of ecosystem responses to natural and anthropogenic forcing across the spectrum of time and space scales in the North Pacific, as well as monitoring, retrospective analysis, and forecasting ecosystem variability. In particular, papers that characterize variability in each regional ecosystem and link them to basin and global scales are welcome. Anticipated changes in North Pacific marine ecosystems include changing water temperature and upwelling intensity, increased occurrence of hypoxia, harmful algal blooms, and ocean acidification, as well as broader impacts from pollutants and contaminants, coastal development, and fishing. In addition, papers are encouraged on strategic options to forestall, mitigate, or adapt to ecosystem change. Examination of interactions among regional marine ecosystems and relationships between regional and basin-scale ecosystem variability will provide an improved understanding of marine ecosystem structure and function in the North Pacific in the face of climate change.

Appendix V: POC Best Presentation and Poster Award (draft)

These are last year criteria, there will be an update at the SB meeting prior to the POC business meeting.

Eligibility

- Oral – 1st author & presenter should be early career scientist.
- Poster – previously no age limit but for this meeting limited to only ECS

Sessions

- o POC judging will be for POC Poster, S7 and S11 ECS orals and posters, and any ECS posters arising from W1, 8, 9. (Tentatively POC will be responsible for judging total of 9 ECS orals and 5 ECS posters)]
- o Evaluation sheet. [Rosalie will provide hard copies in SB mail folder in Secretariat room at meeting/ and can also send electronically if requested.]

Appendix VI: International Observers

Confirmed Observer	Abbreviation	PICES Expert Group Areas	Organization/program
<p>Dr. Simon Brockington (Executive Secretary): secretariat@iwcoffice.org</p> <p>"a letter from Dr Simon Brockington confirming that Dr Tsutomu Tamura (tamura@cetacean.jp) will be the IWC observer at this meeting."</p>	IWC	BIO	International Whaling Commission(IWC)
<p>Sei-Ichi Saitoh (sei-ichi.saitoh@glinnovation.jp) attends</p>	ESSAS	BIO, POC	Ecosystem Studies of Subarctic and Arctic Seas (ESSAS*)
<p>Dr. Vladimir Radchenko (Executive Director) (vlrad@npafc.org)</p>	NPAFC	FIS	North Pacific Anadromous Fish Commission(NPAFC*)

Dr. Gerard DiNardo (Chairman) (gerard.dinardo@noaa.gov)	ISC	FIS	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean(ISC)
Alexander Zavolokin azavolokin@npfc.int	NPFC	FIS	North Pacific Fisheries Commission (NPFC)
Konstantin A. Lutaenko (lutaenko@mail.ru) APN's national Focal Point alternate for Russia	APN	FUTURE-SSC,POC,BIO,HD	Asia-Pacific Network for Global Change Research (APN)
Dr. Peter Kershaw, GESAMP Chair (peter@pjkershaw.com)	GESAMP	MEQ	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection(GESAMP)
Lisa Eisner lisa.eisner@noaa.gov (We are not able to attend. Lisa Eisner represented us before. We will ask her. Thanks. Molly)	AOOS	MONITOR	Alaska Ocean Observing System (AOOS*)
Dr. Vyacheslav Lobanov (Chair): lobanov@poi.dvo.ru	NEAR-GOOS	MONITOR	North East Asian Regional GOOS(NEAR-GOOS*)

<p>Prof. Willie Wilson (Director): wilwil@sahfos.ac.uk</p> <p>"Sonia Batten (soba@sahfos.ac.uk) will represent SAHFOS with aplomb! "</p>	SAHFOS	MONITOR	Sir Alister Hardy Foundation for Ocean Science(SAHFOS*)
<p>Prof. Annalisa Bracco (Co- Director, Program in Ocean Science and Engineering): abracco@gatech.edu</p>	CLIVAR	POC	Climate and Ocean - Variability, Predictability and Change (CLIVAR*) project
<p>ICES President Cornelius (Nils) Hammer (cornelius.hammer@thuenen.de)</p>	ICES	SB	International Council for the Exploration of the Sea(ICES*)
<p>"Matthew Baker (matthew.baker@nprb.org) will be at the conference to represent NPRB."</p>	NPRB	SB	North Pacific Research Board(NPRB*)

<p>Isabel Chaves: i.chavez@unesco.org; Salvatore Arico (s.arico@unesco.org) to present at SB; Ryabinin at GC</p> <p>"Mr Ryabinin has decided to attend himself and would be very honored to give a presentation on 24 September during the Committee meeting. "</p>	IOC	SB, GC	Intergovernmental Oceanographic Commission (IOC*)
<p>Lisa Maddison (Deputy Executive Officer): lisa.maddison@imr.no</p>	IMBER	SB, HD	Integrated Marine Biogeochemistry and Ecosystem Research(IMBER*)
<p>Lev Neretin (lev.neretin@unep.org)</p>	NOWPAP	SB,MEQ	Northwest Pacific Action Plan(NOWPAP*)
<p>Prof. Yutaka Michida (ymichida@aori.u-tokyo.ac.jp)</p>	IODE	TCODE	International Oceanographic Data and Information Exchange(IODE)

