

Report of the PICES/ICES/PAME Working Group on an *Integrated Ecosystem Assessment for the Central Arctic Ocean*

PICES joined an existing ICES/PAME (Protection of the Arctic Marine Environment) Working Group on an Integrated Ecosystem Assessment for the Central Arctic Ocean in 2016. Preparing an Integrated Ecosystem Assessment (IEA) for the Central Arctic Ocean (CAO) is a step needed to provide scientific advice on issues such as the prospect for future fisheries in the Arctic Ocean and sensitivity and vulnerability in relation to shipping activities.

The joint PICES/ICES/PAME Working Group on an *Integrated Ecosystem Assessment for the Central Arctic Ocean* (WG 39) had its first meeting on September 24, 2017, at PICES-2017 in Vladivostok, Russia. Co-Chair (PICES), Dr. Sei-Ichi Saitoh, led the meeting.

AGENDA ITEMS 2 and 3

Review WG 39 terms of reference, history and time plan

Following self introductions of participants (*WG 39 Endnote 1*), the terms of reference were briefly described by Dr. Saitoh (see *WG 39 Endnote 2*) and reviewed by the members. Dr. Saitoh also introduced the history and time plan of the joint WG and related meetings such as FiSCAO (Fish Stocks in the Central Arctic Ocean).

AGENDA ITEM 4

Relevant national research programs

Relevant national research programs were introduced and key aspects were described.

AGENDA ITEM 5

Meetings and workshops

The attendees were in general agreement that it is important and necessary to have significant Pacific input to the whole endeavor. Rather broad findings of previous reports will need to be supplemented with details and more information. This will form the basis of PICES input and advice to the integrated ecosystem assessment envisioned. Contributions will have to be made first via the 5th FiSCAO scheduled in October 2017 and largely through the third meeting of the Joint WG planned in May 2018, and ultimately to the final report expected toward the end of 2018.

Hence WG 39 is proposing two PICES workshops. The first one (1½-day meeting), which is technical in nature and for experts, will be held inter-sessionally in February/March 2018 in either Sapporo, Japan, or Incheon, Korea, and this is mostly in preparation for the third meeting of the Joint WG. (Financial support is not requested.) As a follow-up to this as well as a wrap-up, a ½-day workshop (*WG 39 Endnote 3*) is proposed to take place at PICES-2018 to consolidate the WG's findings and advice, connect it to those from ICES and to report to the wider PICES community. It will be desirable to engage other PICES committees, at least MONITOR and FIS. WG 39 requests travel support for an expert outside of PICES to attend the workshop at PICES-2018.

The major theses of the two workshops will be:

- Key locations in the Pacific Arctic and the critical processes to determine biological production;

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- Characterization of major changes for recent decades;
- Ramifications for the ecosystem monitoring and management in the region.

One of the tasks for the WG 39 will be to explore and make use of a pool of databases, aided by the general findings of previous reports and a literature survey.

AGENDA ITEM 6

Membership

Dr. Saitoh recommended an additional Japanese member to WG 39, whose specialty lies in policy aspects. This will be sought by a proper channel through the Japanese delegation to PICES.

AGENDA ITEM 7

Closing

The meeting concurred that further communication would be necessary and should be made on-line. The Co-Chair thanked the attendees and closed the first, successful meeting of WG 39.

WG 39 Endnote 1

WG 39 participation list

Members

Zhongyong Gao (China/PICES)
Guangshui Na (China/PICES)
Sei-Ichi Saitoh (Japan, Co-Chair/PICES)
Hyoung Chul Shin (Korea)

Observers

Kirill Kivva (Russia)
Zhang (China)
Jennifer Jackson (Canada)
Matthew Baker (USA)
others

Members unable to attend

China: Fang Zhang

WG 39 Endnote 2

WG 39 meeting agenda

1. Welcome, introductions, opening remarks
2. Review WG 39 terms of reference
3. History and time plan of PICES/ICES/PAME Working Group
4. Relevant national research programs
5. Meetings and workshops
6. Membership
7. Closing

WG 39 Endnote 3

**Proposal for a Workshop on
“PICES contribution to Central Arctic Ocean (CAO) ecosystem assessment (Second)”
at PICES-2018**

Duration: ½ day

Convenors: Sei-Ichi Saitoh (Japan), Hyoung Chul Shin (Korea), Lisa Eisner (USA), Gordon Kruse (USA)

Suggested invited speaker: Hein Rune Skjoldal (Norway/PAME)

The Central Arctic Ocean (CAO) is in rapid transition, largely driven by North Pacific change, has become accessible to a range of activities. Rapid loss of sea ice cover has opened up the Central Arctic Ocean (CAO) for potential fishing opportunities. Debate and policy initiatives have been launched for regulating fisheries that are anticipated to begin in the CAO. Scientific research in the CAO, however, remains scarce in contrast to an abundance of research in the neighboring North Pacific. To inform and support policy decisions in the CAO, an integrated ecosystem assessment is the foremost task. PICES joined with ICES and PAME for such an assessment by forming WG 39 with its mission period ending 2018. WG 39, despite its late start, intends to provide significant Pacific input for the assessment at the third meeting of the Joint Group in May 2018, and also to the final report expected toward the end of 2018. We propose two workshops in 2018. The first one, which is technical in nature and for experts, will be organized February/March in 2018 and this is mostly in preparation for the third meeting of the Joint Group. As a follow-up to this, a half day workshop is proposed to take place at PICES-2018 to consolidate our findings and advice, connect it to those from ICES and to report to the wider PICES community. The major theses of the second workshop at PICES-2018 will be: key locations in the Pacific Arctic and the critical processes to determine biological production; characterization of major changes for recent decades; ramifications for ecosystem monitoring and management in the region. One of the tasks for WG 39 in doing this will be to explore for and make use of a pool of databases, aided by the general findings of previous reports and literature survey.