

Report of the Technical Committee on Monitoring

The Technical Committee on Monitoring (hereafter MONITOR) met from 18:00–19:30 hours on October 13, and from 14:00–18:30 hours on October 18, 2013, under the chairmanship of Dr. Hiroya Sugisaki. Nine committee members representing all PICES member countries were present, and a total of 16 observers were in attendance (*MONITOR Endnote 1*). The meeting agenda (*MONITOR Endnote 2*) was very full and business was conducted at a brisk pace.

AGENDA ITEM 2

Advisory Panel reports

Advisory Panel on Continuous Plankton Recorder Survey in the North Pacific (AP-CPR)

Dr. Phillip Mundy, AP-CPR Chair, could not participate in the Annual Meeting so the AP-CPR meeting planned for October 12 was cancelled. Instead, Dr. Sonia Batten, AP-CPR member from Canada, reported on the annual activities of the Panel. The Pacific CPR currently has funding, but the Panel needs to continue looking for funds to sustain Pacific CPR activities. Research activity is going well and the Pacific CPR group has a good relationship with the Global Alliance of Continuous Plankton Recorder Surveys (GACS). Dr. Nicholas Owen, Director of SAHFOS, added information about the Foundation's activities.

Advisory Panel for a CREAMS/PICES Program in East Asian Marginal Seas (AP-CREAMS)

Dr. Naoki Iguchi, AP-CREAMS member from Japan, presented a report on the status of the AP-CREAMS activities. AP-CREAMS requested that the EAST II project report be published as a PICES scientific report.

FUTURE Advisory Panels

Dr. Vladimir Kulik, representing MONITOR in AP-AICE, presented a report on AICE activities and Dr. Hiroya Sugisaki, on behalf of Dr. Vyacheslav Lobanov, representing MONITOR in AP-COVE, reported the COVE activities. MONITOR could not send a representative to AP-SOFE.

AGENDA ITEM 3

PICES-2013

MONITOR was assigned the responsibility of judging the session on “Recent trends and future projections of North Pacific climate and ecosystems” (S6) and “Cost-effective, cooperative ocean monitoring” (S9). The Chairman thanked the volunteers for their service.

Dr. Youngji Joh received the MONITOR Best Presentation Award for her talk on “[An improvement of reproductibility of Pacific decadal oscillation in CMIPS](#)”, and Dr. Tomoko Yoshiki received the MONITOR Best Poster Award for her poster on “[Geographical shift of warm water species distribution in western subarctic North Pacific based on CPR sample during 2001-2010](#)”.

AGENDA ITEM 4

National reports

The following Committee members from 4 nations made short presentations on national monitoring activities relevant to PICES; the Korean report was sent to the Committee Chair later:

- Canada: Dr. Jennifer Boldt reported on Canada's continuous monitoring activities, *e.g.*, Line-P, ecosystem process surveys, aquatic invasive surveys, and on the cabled undersea observatory networks (VENUS and NEPTUNE).
- China: In recent years, representatives of China did not attend the MONITOR meetings. Dr. Jilong Li agreed that China will resume communications with MONITOR.

MONITOR-2013

- Japan: Drs. Sei-Ichi Saitoh and Sanae Chiba reported on the continuous monitoring activities and ocean observing activities conducted by universities and national institutes in Japan.
- Korea: Korean membership in MONITOR has changed this year. Dr. In-Seong Han agreed that Korea will resume communications with MONITOR.
- Russia: Dr. Kulik talked about continuous monitoring activities of TINRO-Centre in the Bering Sea, Okhotsk Sea, *etc.*
- USA: Dr. Barth spoke about U.S. ocean monitoring activities, including the U.S. ocean cable observatory, OOI's (Ocean Observatory Initiative) glider array observation, and NaNOOS.

Dr. Barth presented a report on the 2013 PICES summer school "*Ocean observing systems and ecosystem monitoring*". The 5-day summer school was held August 19–23, at Oregon State University's (OSU) Hatfield Marine Science Center, Newport, Oregon, USA. It was the first PICES summer school held on the eastern side of the Pacific. Thirty-three early career scientists attended this summer school to learn about in-water observing, and to work with multidisciplinary sensors and analyzers, *etc.* It was very successful.

AGENDA ITEM 5

Relations with international/national organizations and programs

MONITOR agreed that the network between international organizations and PICES is very important and it is necessary to keep up good relationships with them. The representatives of the following organizations attended the committee meeting and reported their activities:

- AMAP (Arctic Monitoring and Assessment Programme): Dr. Robie Macdonald,
- PAG (Pacific Arctic Group): Dr. Bill Williams
- ESSAS (Ecosystem Studies of Sub-Arctic Seas): Dr. Sei-Ichi Saitoh
- NPRB (North Pacific Research Board): Dr. Carrie Eichens
- SCOOS (Southern California Coastal Ocean Observing System): Dr. Tony Koslow
- Argo (International program for deployment of profiling floats): Dr. Charles Hannah
- SAHFOS (Sir Alister Hardy Foundation for Ocean Science): Dr. Nicholas Owens (see Agenda Item 2)

BIO-GOOS

GOOS activities have begun to incorporate biological and biochemical research and a GOOS Biogeochemical Workshop will be held on November 13–15, 2013 in Townsville, Australia. Drs. Sanae Chiba (MONITOR member) and David Checkley (AP-CREAMS member) will represent PICES at the workshop. In preparation, MONITOR members will send information on PICES monitoring activities to them by e-mail.

ICES ASC

MONITOR discussed whether to support the proposed sessions at the 2014 ICES ASC. MONITOR agreed to support the session "*Pelagic ecosystem dynamics from integrated monitoring surveys*" and to send a co-convenor.

SCOR

Out of three short-listed SCOR proposals for working groups chosen by the Standing Committees, MONITOR strongly recommended:

- Zooplankton production measurement methodologies and their application,
- Studying ocean acidification effects on continental margin ecosystems.

AGENDA ITEM 6

Election of MONITOR Chair and Vice-Chair

Dr. Jennifer Boldt (Canada) was elected Chair, and Dr. Sanae Chiba (Japan) was elected Vice-Chair, replacing Drs. Sugisaki and Mundy, respectively.

AGENDA ITEM 7

Proposals for PICES-2014 MONITOR workshops, special sessions, inter-sessional meetings

MONITOR supported the following sessions and workshops at PICES-2014.

- Topic Session on “*Use of long time series of plankton to inform decisions in management and policy concerning climate, ecosystems and fisheries*” (co-convenor Sanae Chiba; *AP-CREAMS Endnote 4*);
- Topic Session on “*Variability in advection and its biological consequences for Subarctic and Arctic ecosystems*” (co-convenor Sei-ichi Saitoh; *POC Endnote 4*);
- Workshop on “*Networking ocean observatories around the North Pacific Ocean*” (co-convenor Jack Barth; *MONITOR Endnote 3*).

AGENDA ITEM 8

A proposal for the process of producing the North Pacific Ecosystem Status Report

The Committee reviewed a proposal to automate the production of the NPESR, making it a web-based product to be updated on an annual or more frequent basis, with a variety of paper products such as brochures and reports produced less often. MONITOR agreed that the draft of the proposal by SOFE was well designed and well thought out but the Committee could not approve it yet because, as the NPESR is a high priority item, member countries need more time to consider it. AP-SOFE requested that a proposal for a new process of producing the next NPESR be sent to the Governing Council for endorsement if approved by Science Board.

AGENDA ITEM 9

Other business

The Chair and Vice-Chair were asked by Science Board at ISB-2013 to revise the description the POMA to broaden the definition of long-term monitoring. Dr. Sugisaki discussed the draft description with MONITOR members and received no objections.

Dr. Sugisaki reviewed the Action Plan and requested any comments from the members and guests before finalization at the Science Board Meeting.

MONITOR Endnote 1**MONITOR participation list**Members

John A. Barth (USA)
Jennifer Boldt (Canada)
Sanae Chiba (Japan)
In-Seong Han (Korea)
Charles Hannah (Canada)
Vladimir Kulik (Russia)
Jilong Li (China)
Sei-Ichi Saitoh (Japan)
Hiroya Sugisaki (Japan, Chairman)

Observers

Sonia D. Batten (SAHFOS, AP-CPR, GACS)
Wang Cuihua (China)
Feiyan Du (China)
Carrie Eischens (NPRB)
Abigan Enghirst (NPRB)
Jing Feng Fan (China)
Hiromichi Igarashi (Japan)
Naoki Iguchi (AP-CREAMS)
Tony Koslow (SCCOOS)
Robie Macdonald (AMAP)
Nicholas Owens (SAHFOS)
Kazuaki Tadokoro (Japan)
Ellen Tyler (AOOS)
Bill Williams (PAG)
Jing Ying (China)
Sinjae Yoo (Science Board Chairman)

MONITOR-2013

MONITOR Endnote 2

MONITOR meeting agenda

13 October 2013

1. Welcome, Introductions and Sign-in (All)
2. Advisory Panel reports
 - Status of Pacific CPR program and advisory panel and activities of SAHFOS and GACS (Mundy, Batten, Owens)
 - Status of CREAMS w. POC (TBD)
 - Report on the meetings on FUTURE (AICE: Kulik, COVE: Sugisaki, SOFE: Mundy)
3. Information and discussion for PICE-2013 annual meeting
 - Information for S6 (Barth) and S9 (Boldt)
 - Judge of the best presentation award and other information (Sugisaki)

16 October 2013

4. National reports of relevant monitor/observation activities
 - Canada (Boldt)
 - China (Li, Zhang, Zhao)
 - Japan (Chiba, Saitoh, Sugisaki)
 - Korea (Han, Kwon, Ro)
 - Russia (Kulik, Lobanov)
 - United States (+ report on summer school, NaNOOS, AOOS) (Barth, Tyler, Napp/Mundy)
 5. Relations with specific international organizations/programs
 - Arctic Council AMAP, SAON & PAME (Macdonald and Mundy)
 - CenCOOS (Bograd)
 - ESSAS (Saitoh)
 - EVOSTC (Boerner)
 - NEAR-GOOS (Jeong)
 - NPRB (Eischens)
 - SCCOOS (Koslow)
 6. Election of MONITOR Committee Chair and Vice-Chair (All)
 7. Proposals for PICES-2013 MONITOR workshops, special sessions, inter-sessional meetings (All)
 8. Discussion on “A Proposal for the Process of Producing of the North Pacific Ecosystem Status Report” by SOFE (All)
 9. Other business
 - Report on POMA (Sugisaki)
 - Action Plan
- Adjourn

MONITOR Endnote 3

Proposal for a 1½-day MONITOR Workshop on “Networking ocean observatories around the North Pacific Ocean” at PICES-2014

Convenors: Kenneth Denman (Canada), Jack Barth (USA), Jae Hak Lee (Korea), Robert Weller (USA), Hidekatsu Yamazaki (Japan)

Co-sponsors: Ocean Networks Canada, U.S. CLIVAR

In the North Pacific Ocean, various cabled ocean observatories are operating or under development. In addition there exist several long term time series programmes, and the Argo drifter programme. It seems timely to hold a workshop with the following objectives:

- i) set up plans for coordinated data sharing, data standards, common sampling protocols, and open access on the Internet, and
- ii) set out a timeline for developing an integrated (nearly) real-time synthesis of observations in the N. Pacific, by linking coastal and open ocean observatories, and Argo.

- iii) define a specific science challenge/question that could be best addressed through a network of observing systems in the Pacific Ocean.

Most of these facilities are in the North Pacific, and are regional and coastal in scope, making PICES the ideal organization to host such a workshop. The need for such a network of observing facilities was articulated in the conference description of the recent Joint PICES/ICES Workshop on 'Global assessment of the implications of climate change on the spatial distribution of fish and fisheries' held in May 2013 in St. Petersburg, Russia: "... observations and model projections (are) needed to develop a global synthesis of the implications of climate change on fish and fisheries". In the past, correlations of sardine and anchovy long term changes have been established between populations off California, Chile and Japan, so it seems prudent to make the scope of such a workshop the whole Pacific Ocean. We propose the following format for the Workshop: a) a series of talks describing the capabilities of the various long term systematic ocean observing facilities in the Pacific Ocean, and b) a discussion in workshop format on setting up a group to develop a plan for achieving objective ii) above.