

The Technical Committee on Monitoring

The Technical Committee on Monitoring (MONITOR) met from 18:00–19:30 on October 14, and from 14:00–18:30 h on October 17, 2012, under the chairmanship of Dr. Hiroya Sugisaki. Nine Committee members were present, and a total of 18 scientists from 5 PICES member countries 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

Reports of Advisory Panels

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

Dr. Phillip Mundy, AP-CPR Chair, reported on the Panel meeting held on October 13. AP-CREAMS recommended that MONITOR ask the Science Board to request the PICES Secretariat to send a letter of support to key U.S. supporters and allied agencies in March 2013 to heighten awareness of Continuous Plankton Recorder (CPR) project and PICES' continued involvement, in advance of key U.S. funding decisions expected later in 2013.

Dr. Sonia D. Batten presented highlights of the scientific accomplishments and present status of the North Pacific CPR project on behalf of AP-CPR. She reported on the Second Workshop of the Global Alliance of CPR Surveys (GACS) held in Paris September 19–20, 2012, which was also attended by Dr. Sanae Chiba. Drs. Batten and Chiba now sit on the governing body of GACS which was formally established at the Paris meeting. MONITOR members agreed to keep a good relationship with GACS.

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

Dr. Joji Ishizaka, AP-CREAMS Co-Chair, presented a report on the status of the AP-CREAMS activities. The main activities of the Panel in 2012 were continued progress in improving capacity building in terms of a summer school and the oceanographic cruise on the EAST-II project. The Panel requested MONITOR's support for an upcoming NOWPAP joint summer school with IOC-WESTPAC and PICES in 2013 and a proposed PICES summer school in 2014.

FUTURE Advisory Panels

Dr. Mundy and Dr. Jennifer Boldt reported on AP-SOFE and AP-COVE activities, respectively. MONITOR agreed with the roadmap of FUTURE activities. Dr. Mundy was elected new SOFE Chairman.

AGENDA ITEM 3

PICES-2012 review

MONITOR was assigned responsibility to judge the Topic Session on “*Effects of natural and artificial calamities on marine ecosystems and the scheme for their mitigation*” (S11) and “*Monitoring on a small budget: Cooperative research and the use of commercial and recreational vessels as sampling platforms for biological and oceanographic monitoring*” (S4). The Chairman thanked the volunteers in advance for their service.

Dr. Toshihiro Wada was given the MONITOR Best Presentation Award for his talk on “*Tsunami disaster and nuclear power plant accident effects on fishery facilities and marine products in Fukushima Prefecture: present conditions and prospects*”, and Dr. Hideki Kaeriyama was presented with the MONITOR Best Poster Award for his presentation on “*Oceanic dispersion of radioactive cesium around Japan and western North Pacific after the Fukushima Dai-ichi Nuclear Power*”. (For a detailed list of award recipients, see the end of the Sessions Summary section in the [2012 Annual Report](#).)

MONITOR-2012

AGENDA ITEM 4

Country reports

Committee members from 4 member countries made short presentations on national monitoring activities relevant to PICES. The Korean report was sent to the MONITOR Chair later.

Canada

Dr. Boldt reported on continuous monitoring activities, e.g., Line-P, Bowie seamount, *etc.*, and cabled undersea networks (VENUS and NEPTUNE).

Japan

Drs. Saitoh, Chiba, and Tadokoro reported the preliminary results of research on the effect of the Great East Japan Earthquake, and the continuous monitoring activities by JAMSTEC and FRA.

Russia

Dr. Vladimir Kulik reported on the continuous monitoring activities of TINRO in the Bering Sea, Okhotsk Sea, *etc.* and on POI's activities e.g., NEAR-GOOS and CREAMS or coastal monitoring at Primorye.

USA

Drs. Mundy and Jack Barth reported U.S. ocean monitoring activities, including NaNOOS and AOOS. Some new technologies, such as the use of mobile phone applications to access ocean data, were introduced in the NaNOOS areas (Washington State, Oregon). In Alaska, AOOS has introduced new software to facilitate collaboration among ocean research groups.

China

New Chinese member, Dr. Zhifeng Zhang, reported on China's current activities of ocean monitoring, especially on recent advanced coastal research. (It is the first time since 2008 that a Chinese member has attended a Committee meeting.)

Korea

No Korean member attended this meeting, but afterwards, Korean members informed the Chairman that they are in the process of reorganizing the membership in MONITOR.

AGENDA ITEM 5

Relations with international/national organizations and programs

The representatives of the following organizations attended the Committee meeting and reported their activities.

Argo

Argo representative, Dr. Toshio Suga, reported current activities, showing a map of the buoy locations. To date, one million profiles have been conducted.

SAHFOS

SAHFOS representative, Dr. Sonia Batten, reported the current status of CPR activities. Global Alliance of CPR Studies (GACS) was established last year and PICES members (Dr. Batten and Dr. Chiba) belong to the governing body of GACS. MONITOR agreed that PICES should continue its good relationship with SAHFOS and their activities on CPR.

PAG

The representative of the Pacific Arctic Group (PAG), Dr. Takashi Kikuchi, reported on monitoring activities in Arctic area of the Pacific (*e.g.*, Bering Sea and Chukchi Sea). Since the Group's area of interest overlaps the PICES region, the exchange of research information between PAG and PICES is important.

AMAP

AMAP (Arctic Monitoring and Assessment Programme) representative, Dr. Ken Drinkwater, introduced recent activities. The research area of AMAP is the whole Arctic, and they wish to establish and maintain research relationships with both PICES and ICES. MONITOR agreed that joint activities with Arctic monitoring are important for ocean monitoring in the North Pacific, since the Arctic Council includes the Bering Sea and the Aleutian Islands in its definition of the Arctic.

SCOOS

The representative of SCOOS, Dr. Tony Koslow, introduced activities and stated that the main research area of SCOOS is the southern border of the PICES area. SCOOS exchanges information from its ocean monitoring with other ocean observing systems to the north, such as NaNOOS and PacOOS.

NEAR-GOOS

Representative, Dr. Hee Dee Jeong, talked about NEAR-GOOS activities. Since the Asian marginal seas are one of the important PICES research areas for PICES members, especially in the western Pacific, it was recommended that PICES keep a regular relationship with NEAR-GOOS.

AGENDA ITEM 6

MONITOR Action Plan and proposal for continuing NPESR

The Committee Chairman reviewed the Action Plan and requested comments from the membership and guests. The Committee Vice-Chairman, Dr. Mundy, reviewed a proposal to automate the production of the NPESR, making it a web-based product updated on an annual basis, with a variety of paper products such as brochures and reports, produced less often.

AGENDA ITEM 7

PICES Ocean Monitoring Service Award (POMA)

The Committee Chairman reviewed the role of MONITOR to nominate and recommend candidates for POMA to Science Board. Russian member, Dr. Kulik, informed the Committee about plans to nominate Russian activities to POMA.

AGENDA ITEM 8

Planning for PICES-2013 and inter-sessional meeting

MONITOR strongly supported the following proposals for PICES-2013:

1. *"Towards the development of low-cost cooperative ocean monitoring networks"* (MONITOR Endnote 3)
2. *"Recent trends and future projections of North Pacific climate and ecosystems"* (WG 29 Endnote 5)

MONITOR members determined that the title of # 1 should be revised, because the target sounded too narrow. A MONITOR member will contact the proponents of the Topic Session.

MONITOR-2012

AGENDA ITEM 9

Other business

Dr. Jack Barth (USA) informed the Committee that the Ocean Monitoring Summer School will be held in Newport, Oregon, from August 19–23, 2013.

MONITOR Endnote 1

MONITOR participation list

Members

John A. Barth (USA)
Jennifer Boldt (Canada)
Sanae Chiba (Japan)
Vladimir Kulik (Russia)
Vyacheslav Lobanov (Russia)
Phillip R. Mundy (USA, Vice-Chairman)
Sei-Ichi Saitoh (Japan)
Hiroya Sugisaki (Japan, Chairman)
Zhifeng Zhang (China)

Observers

Sonia D. Batten (SAHFOS, CPR-AP, GACS)
Jackie Gambier (AMAP)
Joji Ishizaka (CREAMS-AP)
Hee Dee Jeong (NEAR-GOOS)
Takashi Kikuchi (AMAP)
Tony Koslow (SCCOOS)
Yoshioki Ozeki (FRA)
Toshio Suga (Argo)
Kazuaki Tadokoro (FRA)

MONITOR Endnote 2

MONITOR meeting agenda

October 14, 2012, 18:00–19:30 h

1. Welcome, introductions and sign-in (all)
2. Advisory Panel's report
Status of Pacific CPR program and advisory panel (Mundy)
Status of CREAMS w. POC (Ishizaka)
Report on the meetings on FUTURE (AICE: Ro, COVE: Lobanov, SOFE: Mundy)
3. Information and discussion for 2012 PICE Annual Meeting
Information for S11 (Sugisaki) and S4 (Boldt)
Judging of the best presentation award and other information (Sugisaki)

October 17, 2012, 14:00–18:00 h

4. Country reports of relevant monitor/observation activities
Canada (Boldt, Mackas)
China (Zhang, Zhao)
Japan (Chiba, Saitoh, Sugisaki)
Korea (Park, Ro, Suh)
Russia (Kulik)
United States (+NaNOOS, AOOS) (Barth, Mundy)
5. Reports of representatives from corresponding organizations
CenCOOS (Bograd)
SCOOS (Koslow)
PaCOOS (TBA)
NEAR-GOOS (Jeong)
Argo (Suga)

- PAG (Kikuchi)
SAHFOS (Batten)
AMAP (Drinkwater)
6. Action Plan of MONITOR and proposals for NPESR (continued from Agenda II)
 7. Report on POMA (Sugisaki)
 8. Proposals for PICES-2013 MONITOR workshops, special sessions, inter-sessional meetings (All)
 - 9 Other business (if any)
 10. Adjourn 17:50

MONITOR Endnote 3

Proposal for a 1-day Topic Session on
“Towards the development of low-cost cooperative ocean monitoring networks” at PICES-2013
[later renamed *“Cost-effective, cooperative ocean monitoring”*]

Long-term monitoring is a key component of an ecosystem-based approach to fisheries management. Data time series enable the examination of changes in oceanographic and community metrics. In addition to costly ocean monitoring systems with sensor arrays and autonomous vehicles, low cost cooperative monitoring efforts would enhance our understanding of marine ecosystems, as well as help insure their long-term viability. An important consideration for sustainable long-term ocean monitoring is the development of affordable solutions to deploying and retrieving sensors. Sustainable long-term ocean monitoring is successfully being implemented at regional scales with low-cost options as presented in the 2012 PICES Annual Meeting session entitled *“Monitoring on a small budget: Cooperative research and the use of commercial and recreational vessels as sampling platforms for biological and oceanographic monitoring”*. Researchers from many nations are now working with other ocean going stakeholders such as fishers and mariners to collect oceanographic and fisheries data for little to no deployment and retrieval costs. This session is intended to provide a forum for researchers to present the development and results of cooperative monitoring projects world-wide. The session will also explore the feasibility of developing low-cost and long-term cooperative ocean monitoring networks based on the lessons learned from these projects. When combined with efforts such as the Global Oceans Observing System (GOOS), cooperative ocean monitoring networks will make an important contribution to achieving data-driven ecosystem-based management.

Sponsoring Committee: MONITOR

Co-convenors: Steven J. Barbeaux (USA), Jennifer Boldt (Canada), Martin Dorn (USA), Jaebong Lee (Korea)