

## **The Advisory Panel for a *CREAMS/PICES Program* in *East Asian Marginal Seas***

The meeting of the Advisory Panel for *Circulation Research in East Asian Marginal Seas/PICES Program* (AP-CREAMS) was held during PICES-2012 in Hiroshima, Japan. Five Advisory Panel members, and three observers, from Japan, Korea and Russia attended the meeting (*AP-CREAMS Endnote 1*). Dr. Kyung-Ryul Kim, Co-Chairman of AP-CREAMS, opened the meeting at 14:00 h, October 14, 2012 and reviewed the agenda (*AP-CREAMS Endnote 2*). Dr. K-R. Kim stated that this was the second meeting of the year held by the Advisory Panel, following the one held in May in Yeosu, Korea (see *AP-CREAMS Endnote 3*). Co-Chairman, Dr. Vyacheslav Lobanov (Russia), was not able to attend the meeting because of a cruise, and none of the Chinese members were able to attend because of the limitation for chances of abroad travel.

### AGENDA ITEM 2

#### **National reports on activities and plans related to the CREAMS/PICES Program**

##### *China*

Dr. K.-R. Kim briefly reported that he visited China and had discussions with three Chinese members and found there were many activities going on in China, especially related to the Yellow Sea and East China Sea areas. We agreed that these activities will be of great benefit for us to formulate EAST-II program. Furthermore, the next AP-CREAMS meeting will be hosted by Chinese members, possibly in conjunction with the PAMS meeting at Hangzhou.

##### *Korea*

Dr. Kyung-II Chang presented the status of time-series measurements in the Japan/East Sea maintained by the Korean EAST-I program, National Fisheries Research and Development Institute (NFRDI), and Korea Institute of Ocean Science and Technology. New components added to the existing time-series measurements are the acquisition of full-depth current profiles in the Japan Basin using the LADCP (Lowered Acoustic Doppler Current Profiler) during the Korea-Russia joint survey in October 2012, and an initiation of ship-of-opportunity surface water monitoring of temperature, salinity, and chlorophyll in the Ulleung Basin by NFRDI from July 2012. Dr. Chang also introduced the 2013 observation plan including the long-term deployment of an array of 4 or 5 current meter moorings in the Japan Basin as a part of the Korea-Russia joint activities. The main objectives of the moored observation are to quantify the volume transports of subsurface water masses, and to identify the physical forcing affecting the temporal variation of biogeochemical properties in the Japan Basin. Two autonomous moored profilers carrying biogeochemical and optical sensors will be a part of the mooring. Korea EAST-I program will host OceanSITES 2013 (9<sup>th</sup> Steering Committee and 6<sup>th</sup> Data Management Team Meetings) in Seoul in May 2013.

##### *Japan*

Co-Chairman, Dr. Joji Ishizaka, reported on the success of the T/S *Nagasaki-maru* and R/V *Tansei-maru* cruises as activities of EAST-II. He stated that the cruises are important as international collaborative capacity building activities. Giant jellyfish were fairly abundant but not as much as during 2002–2007, and temperature may control their abundance during the spring time. A presentation related to this was given in BIO/FIS Topic Session (S7) at PICES-2012. Also, 1-mm size ephyrae of giant jellyfish were found for the first time off Changjiang Estuary in May 2011 through collaborative research between Japan, China and Korea. Dr. Toshitaka Gamo added some words about the cruises including the *Nagasaki-maru* cruise conducted in EAST-I region by Dr. Jiang Zhang of Toyama University. He also mentioned that the *Tansei-maru* is old, and the construction of a new JAMSTEC vessel has been started. Dr. Ishizaka introduced a new project “The Study of Kuroshio Ecosystem Dynamics for Sustainable Fisheries (SKED)” led by Dr. Hiroaki Saito and pointed out that this is one of the major projects in the Kuroshio area including the East China Sea for the next 10 years.

*Russia*

Dr. Yury Zuenko described briefly Russian monitoring programs in the EAST-I region, with special attention to the programs of the Pacific Fisheries Research Center (TINRO), including infrequent general surveys of the Russian EEZ, annual surveys of the shelf zone along the Primorye coast, and Peter the Great Bay, and frequent detailed sampling in its inner part carried out monthly from May to October since 2007. Long-term series of oceanographic and biological data for the Russian EEZ were presented and recent tendencies in the oceanographic regime and changes in the marine ecosystem were considered: on the background of a warming trend in all layers of the Sea, the last decade was peculiar due to relative cooling in the surface layer, in particular for winter; in spite of the tendency for increasing zooplankton abundance, a low-biomass state of top trophic levels (nekton) has been noted since the 1990s, with extremely low stocks of both the mass subtropical species, such as sardine, and cold-water species, such as walleye pollock and herring (with exception of its Korean population).

AGENDA ITEM 3

**Capacity building activities in 2013 and later**

*NOWPAP Remote Sensing training course in China in 2013*

Dr. Ishizaka announced that CEARAC/NOWPAP is proposing their fourth training course on “*Remote sensing data analysis*” in Qingdao, China in 2013 as a joint activity of NOWPAP, IOC-WESTPAC and PICES and suggested that AP-CREAMS should support the proposal. Members agreed that the training course is part of the capacity building activities of AP-CREAMS and that they would assist in the activity. AP-CREAMS suggests that the POC and MONITOR Committees support the joint NOWPAP/IOC-WESTPAC/PICES training course and provide financial support in the form of travel grants for one trainer and one trainee from PICES member countries to attend.

*Workshop/training course on “ecological modeling” in 2014*

Dr. Kim proposed a summer school for ecosystem modeling in 2014. Dr. Kim and Dr. K.I. Chang both agree to prepare the one-page proposal for PICES.

AGENDA ITEM 4

**Status report on international cooperation**

*R/V Akademik Oparin cruise in 2012*

Dr. Kim reported that the Russia-Korea collaborative cruise of the R/V *Akademik Oparin* was successfully started. The ship left from Vladivostok, Russia, on October 9, 2012, and left Donghae, Korea, on October 13 with 15 Russians and 16 Koreans on board, including Dr. Lobanov, and conducted sampling at the first station on October 13 in the EAST-I region. The cruise will last 22 days. A similar cruise is being planned in 2013 and hopefully, there will be participation from other countries.

*Other possible cruises in 2013 and later*

Dr. Gamo will apply the *Tansei-maru* cruise in 2013 or 2014 for an international cruise. Dr. Ishizaka or his colleagues also will apply the *Nagasaki-maru* cruise in 2013.

AGENDA ITEM 5

**Preparation and submission of final version on Supplementary Chapter of PICES North Pacific Ecosystem Status Report-2010 Status and trends of East Asian Marginal Seas in 2003–2010**

Dr. Kim reported that the revised version of the supplementary chapter of PICES North Pacific Ecosystem Status Report (NPESR) was submitted to Science Board and the PICES Secretariat on October 10, 2012. A

previous version had been sent on October 2011 to Dr. Hiroya Sugisaki, Chairman of MONITOR, and Mr. Robin Brown, Chairman of AP-SOFE, who sent comments their on April 18 and on July 18, 2012, respectively, which were forwarded to AP-CREAMS and *ad hoc* committee members. An *ad hoc* committee meeting was held in Seoul from September 17–18, 2012, and final version was distributed to AP-CREAMS members for viewing. Dr. Kim also mentioned that the task of the *ad hoc* committee and AP-CREAMS members had ended, and expressed thanks to the *ad hoc* committee members and authors for their hard work and hope for the quick publication of the report. Dr. Yukimasa Ishida noted that Japan/East Sea is used in the present draft. He pointed out that Japan Sea is the internationally recognized and established name and used in other international organizations, and that the PICES is also an international organization and has a responsibility of being a model to other organizations. He further mentioned that the Japanese government cannot just overlook that PICES becomes a source of confusion and cannot accept the wording of Japan/East Sea in the present draft, which is not recognized internationally.

#### AGENDA ITEM 6

##### **EAST-II Program**

Dr. Kim reported that writing of an extensive status report or review of the EAST-II region is under discussion and that the idea was of interest to many AP-CREAMS members, including Chinese members. Dr. Ishizaka and Dr. Jae-Hak Lee suggested Joji Ishizaka (Biology), Jing Zhang (Chemistry), Takeshi Matsuno (Physics), Jae-Hak Lee (Physics) and Suam Kim (Biology) as *ad hoc* committee members, and that Chinese members are not decided. Dr. Ishizaka suggested the nomination of three AP-CREAMS members, Sumei Liu (Chemistry), Dongfeng Xu (Physics) and Fei Yu (Physics) as tentative *ad hoc* committee members to which the meeting AP-CREAMS members agreed. In addition, Dr. Lobonov was also nominated as a Russian *ad hoc* member. AP-CREAMS members discussed the possible form of the report, including extended status report similar to the supplementary chapter of NPESR or scientific review papers, and geographical limitation of the area. Dr. Kim suggested that the *ad hoc* committee members further discuss these issues and decide the direction. He pointed out that the 17<sup>th</sup> Pacific-Asian Marginal Seas (PAMS) meeting in Hangzhou, China, April 23–25, 2013, may be a good chance for discussion, and suggested the Japanese and Korean *ad hoc* members visit China to discuss the report with the Chinese *ad hoc* members. Dr. Ishizaka added that PEACE symposium in Nagoya University on November 28–29, 2012, would also be a good opportunity to start discussion of the report, and suggested AP-CREAMS members to attend.

#### AGENDA ITEM 7

##### **Next AP-CREAMS meeting**

It was decided to hold the next AP-CREAMS meeting in Hangzhou, China, hosted by Dr. Dongfeng Xu or in Qingdao, China, hosted by Dr. Sumei Liu, with relation to PAMS meeting.

#### AGENDA ITEM 8

##### **Miscellaneous items**

Dr. Gamo expressed his wish to be replaced by Dr. Jing Zhang of Toyama University. AP-CREAMS members suggested that Dr. Zhang be added as another Japanese member, and Dr. Gamo agree not to step down. Dr. Ishizaka will ask the Japanese national delegate to add Dr. Zhang as a member of AP-CREAMS.

#### AGENDA ITEM 9

##### **Closing**

Dr. K.-R. Kim closed the meeting at 16:00 h, October 14, 2012.

*AP-CREAMS Endnote 1*

**AP-CREAMS participation list**

Members

Kyung-Il Chang (Korea)  
Toshikazu Gamo (Japan)  
Naoki Iguchi (Japan)  
Joji Ishizaka (Japan, Co-Chairman)  
Kyung-Ryul Kim (Korea, Co-Chairman)  
Yury Zuenko (Russia)

Observers

Yukimasa Ishida (Japan)  
Ungyul Li (Korea)  
Hiroya Sugisaki (Japan)



Participants at the AP-CREAMS meeting at PICES-2012 in Hiroshima, Japan, (left to right) Yukimasa Ishida, Yury Zuenko, Naoki Iguchi, Toshikazu Gamo, Kyung-Ryul Kim, Joji Ishizaka and Kyung-Il Chang

*AP-CREAMS Endnote 2*

**AP-CREAMS meeting agenda**

1. Opening remarks
2. Brief national report on activities and plans related to CREAMS/PICES Program
3. Discussion on capacity building activities in 2013 and later
  - 3.1 NOWPAP Remote Sensing training course in China on 2013
  - 3.2 Workshop/training course on “ecological modeling” on 2014
4. Status report and discussion on international cooperation
  - 4.1 R/V Akademik oparin cruise in 2012
  - 4.2 Possible other cruises in 2013 and later
5. Preparation and submission of final version on Supplementary chapter of PICES North Pacific Ecosystem Status Report-2010

6. Progress on EAST-II Program
7. Next AP-CREAMS meeting
8. Miscellaneous items
9. Closing

### *AP-CREAMS Endnote 3*

#### **Summary Report of the meeting of the Advisory Panel for a CREAMS/PICES Program for East Asian Marginal Seas**

MVL Hotel, Yeosu, Korea  
May 18, 2012

#### **1. Opening remarks**

Co-Chairman Dr. Kyung-Ryul Kim started the meeting on 12:00 h in May 18, 2012. He mentioned that this meeting was not official because there was no Chinese member. Co-Chairman Dr. Joji Ishizaka and Co-Chairman Dr. Vyacheslav Lobanov thanked Dr. K.-R. Kim and other Korean colleagues for hosting this meeting in Korea (*Annex 1* and 2).

#### **2. Brief national reports on recent activities and plans related to the CREAMS/PICES program**

##### *Japan*

Dr. J. Ishizaka and Dr. Jiang Zhang mentioned the *Nanasaki-Mar* and *Tansei-Mar* cruises in 2012. Dr. J. Zhang mentioned the changes after the earthquake including budget and cruise allocations.

##### *Korea*

Dr. K.-R. Kim mentioned that the second stage of the EAST-I project has been started. Dr. Jae Hak Lee mentioned the change from KORDI to KIOST including education and increase of budget.

##### *Russia*

Dr. V. Lobanov mentioned that under the NEAR-GOOS project POI and JMA have started a synchronous annual cross-basin climate monitoring section that continues Japanese PM line to the north along 134°E up to the Russian coast. The first section was implemented by POI and JMA vessels on 3–6 November 2011. He also mentioned that POI made 4 short cruises within Russian territorial waters to look at slope convection processes in the Peter the Great Bay during February–April 2012 and preparations for the cruise from Vladivostok to Kuril Islands as a monitoring activity after the Fukushima accident.

#### **3. Discussion on capacity building activities in 2012 and later**

##### *Workshop/training course on “ecological modeling” on 2014*

Dr. K.-R. Kim mentioned the plan of a workshop/training course on “ecological modeling” in 2013. Dr. Sinjae Yoo stated that PICES had decided that a summer school on Ocean Monitoring will take place in Oregon, USA, in 2013 and suggested the time be changed to avoid conflicts. Dr. K.-R. Kim decided to shift the workshop/training course to 2014.

##### *Others*

Dr. J. Ishizaka mentioned that NOWPAP is planning a 4<sup>th</sup> training of remote sensing in China in 2013 and asked PICES to support as a partner.

#### 4. Status report and discussions on international co-operation

##### *Japan*

Dr. J. Ishizaka mentioned that the *Nagasaki-Maru* cruise is planned for July 18–28, 2012 around Tsushima and Goto Islands, Nagasaki, Japan, and asked the participation from other countries. Dr. J. Zhang mentioned that the *Tansei-Maru* cruise is planned for September 23–October 2, 2012, from Ryukyu Islands to the continental shelf of the Korean EEZ to understand the Kuroshio–shelf flux. Although the berth is not available, sampling may be possible. Dr. K.-R. Kim suggested Dr. J. Ishizaka and Dr. J. Zhang distribute the detailed cruise plan. Dr. J. Zhang also mentioned a plan of the *Hakuho-Maru* cruise in the East China Sea in 2015 and possible simultaneous cruises with China and Taiwan, and will ask for the possibility to join.

##### *Russia*

Dr. V. Lobanov mentioned about Korea–Russia joint cruise in mid-September to October 12, 2012, in the southern-central-northwestern EAST-I area, including a long-term monitoring section along 132°E. Fifteen Russian and 15 Koreans are planning to participate, and there is the possibility of other countries joining in the future. He also mentioned that the series of the cruises will be continued and suggested simultaneous international cruises with multiple ships may be feasible. All the participants agreed that simultaneous international cruises with multiple ship operations may be a good solution to the national boundary problem, and decided to keep further discussion.

##### *Korea*

Dr. J.-H. Lee explained the planning stage of new observational projects after 2013 focusing on climate change, environment and ecosystem in the EAST II area. He also introduced a new time series measurement site in the area southeast of Jeju-do. A surface buoy with various meteorological (wind, heat flux, *etc.*) and oceanographic (T, S, DO, Chl-*a*, *p*CO<sub>2</sub>, water velocity, *etc.*) sensors was installed in early May 2012. The data are automatically delivered to KORDI and will be opened to researchers.

#### 5. Discussion and decision on Supplement of PICES North Pacific Ecosystem Status Report

##### *Current status from Science Board*

Dr. S. Yoo explained the status of the report. It has been reviewed by MONITOR and AP-SOFE, and they were generally satisfied with the scientific content but suggested some revisions. SOFE suggested that it need more technical editing, and SOFE and MONITOR found inconsistencies among sections and with other chapters such as interpretation, description, *etc.* Governing Council postponed the decision of the publication because of the naming issue.

##### *What next?*

Dr. K.-R. Kim pointed out the possibility to make a summary consistent with other chapters if it is necessary. He requested AP-SOFE to finish the review as soon as possible so that the revision can be started immediately. Dr. David Checkley suggested that it is necessary to publish the status report as fast as possible and to consult IOC for coordination of the naming issue. Dr. J. Ishizaka suggested a change to the name, such as the name of the current systems in order to avoid the delay. Dr. K.-R. Kim requested Science Board and Council to find the solution within one month so that the report can be ready for publication by the next annual meeting.

#### 6. Progress report on the EAST-II program

##### *Further report on PEACE*

Dr. J. Ishizaka proposed to have the PEACE meeting on the week of December 3–7, 2012. Dr. Dong-Jin Kang pointed out that there is an AGU meeting on that week. Dr. J. Ishizaka agreed to search the possibility of holding it on the last week of November and to distribute the schedule as soon as possible.

### *Status report for the Yellow Sea and East China Sea*

Dr. J. Ishizaka suggested that an extended version of the status report for EAST-II similar to EAST-I is a good activity of EAST-II, as proposed by Dr. K.-R. Kim through an e-mail on December 9, 2011, and participants agreed. Dr. S. Yoo mentioned that Science Board is discussing making a web version of the status reports to make updating easier. Dr. V. Lobanov suggested using a different name for the extended version of the status report to avoid the confusion with previous PICES status reports. Dr. J. Ishizaka agreed to distribute the first ideas of the *ad hoc* committee members for the writing and of the contents.

### 7. Next CREAMS-AP meeting

Members agreed to have the next AP meeting on 14:00 h, October 14, 2012 as a part of next PICES Annual Meeting in Hiroshima, Japan.

### 8. Closing

The Co-Chairman, Dr. K.-R. Kim, closed the meeting at 14:00 h, May 18, 2012. All the members expressed appreciation of the arrangement of the meeting.

### Annex 1

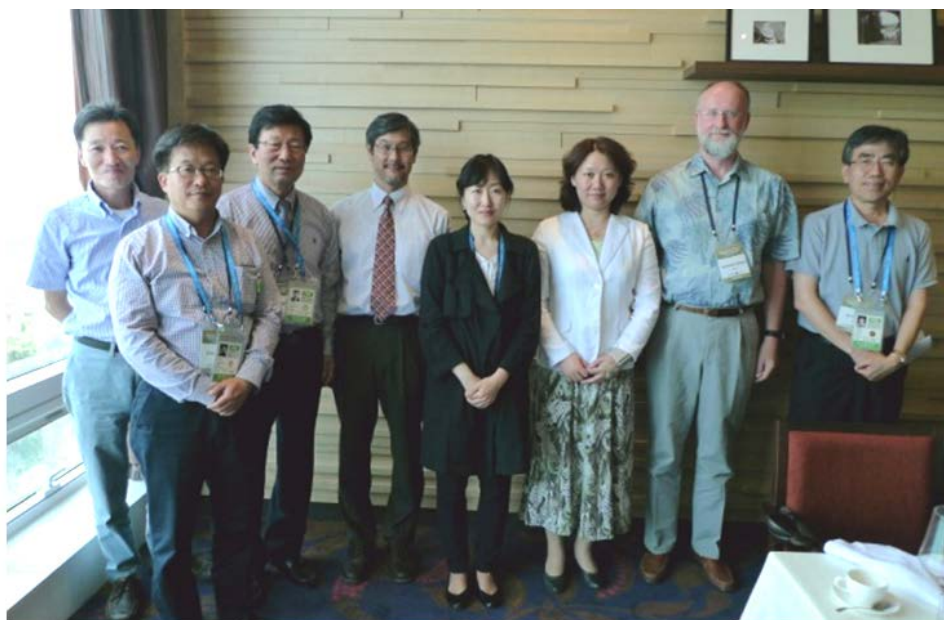
#### AP-CREAMS participation list

##### Members

David Checkley (USA)  
 Joji Ishizaka (Japan)  
 Jae-Hak Lee (Korea)  
 Vyacheslav Lobanov (Russia, Co-Chairman)  
 Kyung-Ryul Kim (Korea, Co-Chairman)

##### Observers

Chan Keun Kang (Korea)  
 Dong-Jin Kang (Korea)  
 Taehee Na (Korea)  
 Sinjae Yoo (Korea)  
 Jing Zhang (Japan)



Participants at the CREAMS/PICES workshop meeting held at Yeosu, Korea, (left to right) CG Kang, Dong-Jin Kang, Kyung-Ryul Kim, Joji Ishizaka, Taehee Na, Jing Zhang, Vyacheslav Lobanov, Jae-Hak Lee.

Annex 2

**AP-CREAMS meeting agenda**

1. Opening remarks
2. Brief national reports on activities and plans related to the CREAMS/PICES program
3. Discussion on capacity building activities in 2012 and later
  - 3.1 Workshop/training course on “ecological modeling on 2014”
  - 3.2 Others
4. Status report and discussions on international co-operation
  - 4.1 Japan
  - 4.2 Russia
  - 4.3 Korea
5. Discussion and decision on PICES North Pacific Ecosystem Status Resport-2010
  - 5.1 Current status from SB
  - 5.2 What next?
6. Progress report on EAST-II program
  - 6.1 Further report on PEACE
  - 6.2 Status report for Yellow Sea and East China Sea
7. Next AP-CREAMS meeting
8. Closing