

MEETING

Anthropogenic Forcings and Climate Change in the Northern Pacific Region

5th China-Japan-Korea IMBER Symposium and Training; Shanghai, China, 22–25 November 2011

This past November, scientists from China, Japan, and Korea gathered in Shanghai to share and discuss their latest achievements from the international Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) project. The symposium focused on the impact of climate change and anthropogenic forcings on physical processes and biogeochemical cycles, ecosystem structure and functions, and fisheries in the northwestern Pacific region and how these complex interactions, in turn, influence marine ecosystems and human society.

Scientists from China, Japan, and Korea have been working actively in the areas of Global Ocean Ecosystem Dynamics (GLOBEC) and IMBER science since the early 1990s. Since 2002 the biennial China-Japan-Korea GLOBEC-IMBER symposia have provided scientists from these countries with the opportunity to collaborate and exchange and compare their research in the northwestern Pacific and marginal seas. Following the GLOBEC-IMBER merger in 2010, the IMBER community decided to continue organizing these symposia.

The oral presentations at the November 2011 symposium were grouped into four ses-

sion themes: (1) the impact of climate change on physicochemical and biological properties of marginal seas, (2) the impact of anthropogenic activities on marine biogeochemistry and ecosystem dynamics, (3) the development of biological indicators to detect and evaluate changes in marine ecosystem structure and function, and (4) the application of end-to-end food web models. During the symposium, recent IMBER-related research and activities in the three countries were reviewed and key scientific issues such as physical processes, elemental cycles, biological properties, outbreak events, and anthropogenic impacts in the northwestern Pacific region were discussed.

Combined with the symposium, a training course for early-career scientists and students was conducted. Systemic knowledge regarding physical, chemical, and multidisciplinary ocean science approaches was presented.

Emanating from the symposium, the following suggestions were made to synthesize existing information and knowledge and the collaboration of IMBER research activities in this region:

- Regionally coordinated joint research activities using a data-sharing mechanism and data from sediment cores from the marginal seas should be organized to provide the opportunity to understand paleoclimatic change and to predict the impacts of forcings from climate change and human activity on the ecosystem.

- The variability of the Kuroshio Current and its influence on the marginal seas are important issues in IMBER research activities in the region. There is a need for coordinated, collaborative research within China, Japan, and Korea.

- Training activities for early-career scientists and Ph.D. students are important for capacity development and will be retained as regular events associated with this symposium series.

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For more information, visit <http://www.imber.info/index.php/Meetings/IMBER-relevant-meetings/meetings-2011/November-2011/5th-China-Japan-Korea-IMBER-Symposium-and-Training-22-25-Nov-2011-Shanghai-China>.

—JING ZHANG, ECNU, Shanghai, China; E-mail: jzhang@sklec.ecnu.edu.cn; HIROAKI SAITO, Tohoku National Fisheries Research Institute, Fisheries Research Agency, Shioyama, Japan; and SE-JONG JU, Deep-Sea and Marine Georesources Research Department, Korean Ocean Research and Development Institute, Ansan, South Korea