

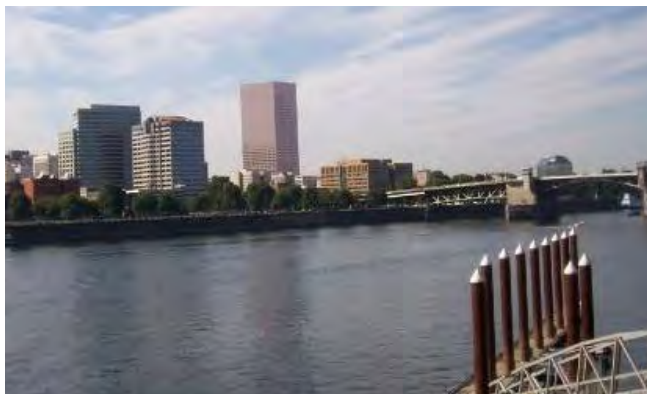
2009 International Conference on “*Marine Bioinvasions*”

by Thomas Therriault

From August 24–27, 2009, about 200 bioinvasion biologists from around the globe descended on Portland, Oregon, U.S.A., to exchange ideas and information at the 6th International Conference on “*Marine Bioinvasions*”. An additional meeting between PICES Working Group on *Non-indigenous Marine Species* and two ICES Working Groups on *Ballast Waters and Other Ship Vectors* and on *Introductions and Transfers of Marine Organisms* held immediately following this conference on August 28, allowed continued discussions about the role and impact of non-indigenous species worldwide, and how these two major regional scientific organizations could work together on this important topic.

The conference Scientific Steering Committee (SSC) was composed of: Jeb Byers (University of Georgia, U.S.A.),

Jeff Crooks (Tijuana River National Estuarine Research Reserve, U.S.A.), Lisa Drake (Naval Research Laboratory, U.S.A.), Anders Jelmert (Institute of Marine Research, Norway), Yoon Lee (National Fisheries Research and Development Institute (NFRDI, Busan, Korea), Whitman Miller (Smithsonian Institution, U.S.A.), Henn Ojaveer (Estonian Marine Institute, Estonia), Gil Rilov (Oregon State University and University of Haifa, U.S.A./Israel), Mark Sytsma (Portland State University, U.S.A.), Thomas Therriault (Department Fisheries and Oceans, Canada), and Chela Zabin (Smithsonian Institution and University of California-Davis, U.S.A.). In addition, the SSC benefited from input of two advisors: Jim Carlton (Williams College, U.S.A.) and Judith Pederson (Massachusetts Institute of Technology Sea Grant College Program, U.S.A.).



The 6th International Conference on “*Marine Bioinvasions*” was held in Portland: downtown Portland across the Willamette River (left) and the Portland Classical Chinese Garden – place for the conference Welcome Reception (right). Located near the confluence of the Willamette and Columbia rivers, Portland has been referred to as the most environmentally friendly or “green” city in the United States, and the second most in the world. In October 2010, Portland will host the 2010 PICES Annual Meeting.

The conference was hosted by the Portland State University, with Mark Sytsma leading the local organizers. Sponsors for the conference were: the North Pacific Marine Science Organization (PICES), the International Council for the Exploration of the Seas (ICES), the Pacific States Marine Fisheries Commission (PSMFC), the Aquatic Bioinvasions Research and Policy Institute at the Portland State University, the U.S. National Sea Grant College Program, and the U.S. National Oceanic and Atmospheric Administration (NOAA).

ICES and PICES supported the three invited plenary speakers at this year’s conference. These were: Dr. Anna Occhipinti-Ambrogi (University of Pavia, Italy), who spoke on alien species as an aspect of global change; Professor Sergej Olenin (Unifob AKSIS, Bergen, Norway and Coastal Research and Planning Institute, Klaipeda University, Lithuania), who summarized patterns and impacts of marine bioinvasions in Europe; and Professor Yoon Lee (NFRDI, Korea), who reviewed marine bioinvasions in Asia.

The conference agenda was an energetic one with two concurrent oral sessions on each of the four days (a total of 127 talks) and a poster session (24 presentations) required to accommodate the increased number of contributed papers over previous meetings. The number of increased contributions reflects increased research activities on non-indigenous marine species around the globe. The conference featured a nice mix of topics, with species-specific sessions focused on lionfish, spartina, and European green crab, vector/pathway specific sessions (*Propagule Pressure*, and *Measuring and/or Predicting Spread*), sessions on applied approaches to non-indigenous species (*Detection, Identification, and Tracking-to-Origin* [including *Advances in Detection*], *Predicting the Scale Diversity of Invasions*, and *Management, Rapid Response, Education, and Restoration*), and sessions that provided insights to broader patterns and implications of non-indigenous species (*Changing Global Conditions and Bioinvasions, Ecology and Evolution*, and *Invasion Patterns over Time and Space*).

In addition to these theme sessions, this year's conference hosted four workshops. The *Green Crab Management* Workshop benefited from input from green crab researchers from around the world to help consider options for management of this high profile invader. Similarly, the participants at the *Invasive Tunicate* Workshop provided input to Washington State's Action Plan to address invasive tunicates in Puget Sound. Workshops on *Spartina/Seaweeds and Shipping Activities* brought together conference participants working in these fields to formulate larger-scale research initiatives that can be conducted in future years. The addition of workshops to the program of the conference was valued by participants.



The Poster Session in front of the Hoffman Hall, Portland State University.

With such a full academic agenda it is important to have a balanced social agenda as well. Conference participants had many opportunities for informal discussions with colleagues and new friends. As with previous conferences on “*Marine Bioinvasions*”, participants were provided breakfast and lunch on site, which allowed more discussion and less travel to seek restaurants off-site. Portland is a very

easy town to get around with free public transportation in the downtown core that allows wider access to shopping, restaurants, and microbreweries. But the real highlight of the conference was the social evening hosted at the Chinese Gardens in the Chinatown District of downtown Portland. These gardens show what can happen when a small group of individuals come together to convert a vacant urban lot to a tranquil and relaxing environment. Participants were even more relaxed when they found out that snacks and drinks were included!

The conferences on “*Marine Bioinvasions*” have always been a place to showcase emerging research in this fast-paced field. Thus, conference organizers and sponsors encourage presentations by early career scientists. This year was no exception. Thanks to contributions from the co-sponsoring organizations, it was possible to provide travel support to all of the graduate students and postdoctoral fellows who requested it. PICES supported the travel of six graduate students (Heidi Gartner, Stephanie Green, Veronica Lo, Lisa Needles, Kimberly Peyton, and Cascade Sorte) and four post-docs (April Blakeslee, Jennifer Dijkstra, Anya Epelbaum, and Joshua Mackie) from Canada and U.S.A.

As a PICES representative on the conference SSC, I would like to express my thanks to the PICES Secretariat for their professional assistance on the conference planning stage, and especially to Julia Yazvenko (PICES Database and Web Administrator) for her valuable help on site.

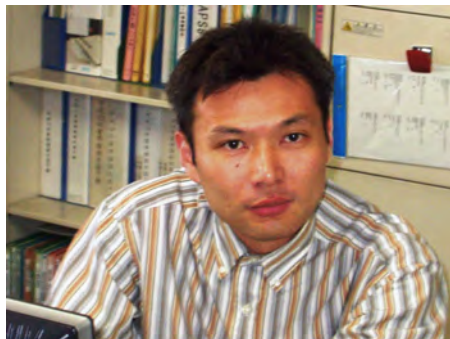
Planning has already started on the 7th International Marine Bioinvasions Conference, so feel free to contact any of the Scientific Steering Committee members, especially your PICES representatives, and watch for further details in future issues of PICES Press.

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Sea ice in the Sea of Okhotsk

The extent of sea ice in the Sea of Okhotsk was below normal (30-year average values from 1971 to 2000) throughout almost the whole period from December 2008 to May 2009 (Fig. 6). It reached its seasonal maximum of $109.34 \times 10^4 \text{ km}^2$ on March 5, which was slightly less than

that of the previous season ($110.69 \times 10^4 \text{ km}^2$) exceeding the highest value for the previous season. The accumulated sea ice extent, defined as the sum of the 5-day sea ice areas from December to May, was the second lowest on record since 1971, following the record-setting 2006 extent. Its ratio to the normal value (1971–2000 average of $2568.22 \times 10^4 \text{ km}^2$) was about 64.4%.



Shiro Ishizaki (s_ishizaki@met.kishou.go.jp) is a Scientific Officer of the Office of Marine Prediction at the Japan Meteorological Agency (JMA). He works as a member of a group in charge of oceanic information in the western North Pacific. Using the data assimilation system named “*Ocean Comprehensive Analysis System*”, this group provides an operational surface current prognosis (for the upcoming month) as well as seawater temperature and an analysis of currents with a 0.25×0.25 degree resolution for waters adjacent to Japan. Shiro is now involved in developing a new analysis system for temperature, salinity and currents that will be altered with the *Ocean Comprehensive Analysis System*.