

## Fifth International Conference on “*Marine Bioinvasions*” and a joint meeting of ICES, IOC, IMO and PICES working groups on invasive species

by Graham Gillespie

The 5<sup>th</sup> International Conference on “*Marine Bioinvasions*” was held May 21–24, 2007, at the Massachusetts Institute of Technology (MIT) in Cambridge, Massachusetts, U.S.A., with more than 180 participants from 22 countries. The event was co-sponsored by the International Council for the Exploration of the Sea (ICES), the North Pacific Marine Science Organization (PICES), the U.S. National Sea Grant Program and MIT Sea Grant College Program, with additional support from NOAA. The purpose of the conference was to examine marine bioinvasion vectors, patterns, distribution, ecological and evolutionary consequences, economic impacts, biosecurity approaches, and natural and invasion impacts on biodiversity.

Each day of the conference opened with an excellent plenary talk. Dr. Jeb Byers, University of New Hampshire, spoke on “upstream” dispersal of invasive species in advective environments. Dr. Janice Lawrence, University of New Brunswick, greatly expanded the awareness of the role of viruses in plankton dynamics. Dr. James Carlton, Williams College, gave an eloquent and entertaining presentation on the challenges associated with assessing the impacts of marine bioinvasions on ecological diversity, and thus the evolution, structure and functioning of natural communities. There were 22 topic sessions that ranged in subject matter from *Patterns in Time and Space, Impacts (Ecological, Economic, Risk Assessment, Strategies and Management Options)*, to *Shipping (Biofouling and Ballast Water)*, and *Phenotypic Responses, Molecular Tools and Information Management*.

While there were many papers documenting progress on invasive species issues, *e.g.*, models to identify potential invasive species, predict species dispersal and describe the

possible range of introduced species, it was clear that there is yet much work to be done. In particular, general understanding and quantification of ecological and economic impacts need further development, as does the use of risk assessment principles to determine species with high potential to invade, to prioritize and direct research, and to identify high-risk vectors to management agencies.

The conference was followed by a joint meeting of the ICES Working Group on *Introductions and Transfers of Marine Organisms* (WGITMO), the ICES/IOC/IMO Working Group on *Ballast and Other Shipping Vectors* (WGBOSV), and PICES Working Group 21 on *Non-indigenous Aquatic Species*. It was convened by the Chairmen of the respective groups: Judith Pederson (MIT Sea Grant College Program, U.S.A., WGITMO), Anders Jelmert (IMR, Norway, WGBOSV), Darlene Smith (DFO, Canada, WG 21) and Vasily Radashevsky (Russian Academy of Sciences, WG 21). The participants briefly reviewed mandates and functions of each working group, then moved on to discuss issues of joint interest and how we might work together in the future.

Potential activities were discussed for the new PICES project on “*Development of the prevention systems for harmful organisms’ expansion in the Pacific Rim*”, funded by the Government of Japan. A general lack of taxonomic expertise was cited as a limiting factor in exchange of information between the member nations of both ICES and PICES. Discussion focussed on a database that would bring together taxonomic information and a registry of taxonomic experts from PICES member countries, similar to DAISIE (**D**elivering **A**lien **I**nvasive **S**pecies **I**nventories for **E**urope).



Participants of a joint meeting of ICES, IOC (Intergovernmental Oceanographic Commission), IMO (International Maritime Organization), and PICES working groups on invasive species.

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