

PICES Press



Newsletter of the North Pacific Marine Science Organization (Published semi-annually)



The state of PICES science - 1999

The PICES Eighth Annual Meeting, held October 8-17, 1999, in Vladivostok, Russia, was a resounding success! We had a total of 319 scientists registered to attend the 151 oral presentations and 99 posters that were given at the meeting. Topic sessions ranged from purely physical ones such as “*Modelling and prediction of physical processes in the subarctic North Pacific: Progress since 1994*”, to those dealing with environmental quality such as “*Ecological Impacts of Oil Spills and Exploration*”. Interdisciplinary workshops and sessions on understanding climate variability and its effects on ecosystems began even before the main scientific meeting, with the workshops that were held as part of the PICES-GLOBEC Climate Change and Carrying Capacity Program, continued with the topic sessions on GLOBEC-related studies, and ended with the Science Board Symposium on “*The nature and impacts of North Pacific climate regime shifts*”. PICES’ Technical Committee on Data Exchange convened a workshop on the application of scientific visualization tools. These tools described at the workshop ranged from high-tech, expensive visualization chambers to simple, but effective use of low-tech, paper 3-D glasses, which the whole audience was able to use to view 3-D marine data.

Congratulations are in order for winners of the Best Presentation Awards at the PICES Eighth Annual Meeting. These awards are given to scientists, nominated by each PICES Scientific Committee and the Science Board, who gave the best presentation in a topic or paper session sponsored by the committee or board. Here are the 1999 winners: the BIO

Award to Dr. Toru Kobari (Japan) for his paper on “*Interannual variabilities in abundance and body size of Neocalanus copepods (Crustacea: Copepoda) in the central North Pacific*”; the FIS Award to Dr. Svetlana Davidova (Russia) for her paper entitled “*Spawning of subtropical species in Peter the Great Bay in 1991-1998*”; the MEQ Award to Dr. Tatiana Orlova (Russia) for her paper on “*Harmful Algal Blooms on the Pacific Coast of Russia*”; the POC Award to Dr. Josef Cherniawsky (Canada) for his presentation on “*Long-lived meanders and eddies in the Alaskan Stream*”; the CCC Award to Dr. Young-Shil Kang (Korea) on her paper entitled “*Long-term changes and unusual high abundance in zooplankton biomass in the South Sea of Korea*”; and the Science Board Award to Dr. Nathan Mantua (U.S.A.) for his presentation on “*Empirical indicators of climate variability and ecosystem response since 1965*”.

The year of 1999 was an important one for PICES in a scientific sense because we had several “firsts” in the area of international collaborative field and laboratory work by the PICES scientific community. This year, a practical workshop was held in Vancouver Harbour by scientists of our Marine Environmental Quality Committee’s Working Group 8 on Practical Assessment Methodology. This was the first time scientists from all of the PICES member countries participated in a joint field and laboratory effort. This practical workshop has set the stage for these scientists to do future collaborative work in the area of marine environmental quality (*for details see separate article in this issue*). Similarly, the Physical

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Oceanography and Climate Committee's Working Group 13 on Carbon Dioxide in the North Pacific also held a multinational technical workshop this year. Their intercalibration exercise for laboratory measurements of carbon dioxide was recognized by the IOC/JGOFS Advisory Panel on Ocean Carbon Dioxide as contributing to high quality of North Pacific carbon dioxide measurements in the future, which will allow multinational synthesis and lead to improved understanding of carbon cycle processes (for details see Dr. Andrew Dickson's article in *PICES Press No. 7 (2)*). Finally, the PICES-GLOBEC Climate Change and Carrying Capacity Program (CCCC) was successful in obtaining funding from the North Pacific Marine Research Program to perform a two-year study to initiate continuous plankton recorder (CPR) monitoring in the North Pacific (for details see Drs. David Welch and Sonia Battens' article in this issue). The next challenge will be to find a way to maintain this monitoring as a long-term PICES effort.

A lot of PICES scientific effort was brought to completion in 1999 by the publication of results in either the PICES Scientific Report Series, in special journal volumes, or as books. The proceedings of the 1997 Science Board Symposium on "Ecosystem dynamics in the eastern and western gyres of the subarctic Pacific" was published in volume 43(2-4) of *Progress in Oceanography*, and the final endpoint of the Science Board's Working Group 5 on the Bering Sea came with the publication of the book "Dynamics of the Bering Sea" by University of Alaska Sea Grant. Three volumes of the PICES Scientific Report series were produced in 1999: Number 10 has the proceedings of the 1998 Science Board Symposium on El Niño 1997-98 events, Number 11 has the proceedings of the 1998 PICES-GLOBEC CCCC Program MODEL, REX, and MONITOR workshops, and Number 12 has the proceedings of the Second PICES Workshop on the Okhotsk Sea and adjacent areas.

Several Working Groups completed their work in 1999 and will be making final preparation for publication of results in 2000. The Physical Oceanography and Climate Committee's Working Group 10 on Circulation and Ventilation in the Japan/East Sea will place their report on the PICES web site as a revisable, living document. The Fishery Science Committee's Working Group 12 on Crabs and Shrimps, and the Biological Oceanography Committee's Working Group 11 on Consumption of Marine Resources by Marine Mammals and Seabirds will also be working towards publication of their final results in the year 2000.

The PICES-GLOBEC CCCC Program continues its work on integrating and stimulating national GLOBEC research efforts in the North Pacific. The Regional Experiments (REX) Task Team is presently focusing on comparative work on herring in the North Pacific. They just completed an interesting workshop on "Herring and Euphausiids" and are planning a

follow-on workshop for 2000, that will examine herring population trends and trophodynamics. Basin Scale Studies (BASS) Task Team has an Iron Fertilization Panel that is planning international field experiments in the subarctic North Pacific to understand the role of iron in influencing production. The MODEL Task Team is undertaking two workshops in the coming year, one to build lower trophic level models in several areas of the North Pacific and the second one to link these models to upper trophic level models. The MONITOR Task Team just completed a successful workshop to learn about the Global Ocean Observing System (GOOS) and to examine the future role of PICES in this growing international program. As an outcome of the workshop, PICES will be developing an action plan that will outline how PICES will be taking an active and leading role in the implementation of GOOS at a North Pacific level.

New collaborations and working groups will begin in the year 2000. An Advisory Panel on Continuous Plankton Recorder (CPR) survey in the North Pacific was formed, which will advise the MONITOR Task Team on the design of its CPR experiments and work. Marine mammal and bird experts now have their own Advisory Panel under the Biological Oceanography Committee (BIO). They will be providing scientific advice to BIO and CCCC, and providing leadership to marine mammal and bird scientists in the North Pacific in the area of ecosystem research. The Marine Environmental Quality Committee has just formed a Working Group to examine the ecology of harmful algal blooms in the North Pacific, and the Fisheries Science Committee has formed a Working Group to consider the implications of climate change to fisheries management. These groups will be working hard in the coming years to bring useful scientific products to the PICES community.

The PICES Science Board has approved many exciting topic sessions for next year's meeting, to be held October 20-28, 2000, in Hakodate, Japan. The details of the sessions are now being worked on in preparation for the first meeting announcement. You can look forward to a slightly different meeting format, with the Science Board Symposium taking place on the first day and much more attention being given to poster presentations. We are also beginning to plan the PICES Tenth Annual Meeting, which will be held at the site of the Secretariat in Victoria, Canada. We hope to have this Anniversary Meeting focus on the progress of PICES science in the last decade and its future direction for the coming decade.

Patricia Livingston
PICES Science Board Chairman
Alaska Fisheries Science Center
NMFS, NOAA,
Seattle, WA 98115-0070, U.S.A.
E-mail: Pat.Livingston@noaa.gov