

First Pacific Symposium on Marine Sciences

The First Pacific Symposium on Marine Sciences was held in Nakhodka in the Primorsk region of the Soviet Union, August 7-16, 1986. The meeting was organized by the Scientific Committee on Marine Sciences of the Pacific Science Association (PSA), an international nongovernmental body devoted to initiating and promoting cooperation in solving scientific problems of the Pacific Basin. The committee is composed of three marine scientists from the Soviet Union, three from the United States, and one each from Canada, the Philippines, Japan, New Zealand, France, Tahiti, Australia, South Korea, and Indonesia. The American members of the committee are G. W. Boehlert (National Marine Fisheries Service (NMFS), Honolulu, Hawaii), J. C. Kelley (San Francisco State University, School of Science, San Francisco, Calif.), and G. R. Seckel (Pacific Fisheries Environmental Group, NMFS, Monterey, Calif.). The committee is chaired by V. I. Ilyichev, who is president of the Far Eastern Sciences Center of the U.S.S.R. Academy of Sciences and also the director of the Pacific Oceanological Institute in Vladivostok.

The topic of the meeting was "Matter and Energy Exchange in Water Mass, Ocean-Atmosphere, and Water-Bottom Sediment Systems and Their Impacts on Biot." After the arrival of the foreign participants on August 7, a tour of Nakhodka, and an opening address by Ilyichev, the program of scientific papers began on the afternoon of August 8 with an opening session with various papers on the El Niño-Southern Oscillation (ENSO) phenomenon, geochemistry, the Kuroshio-atmosphere interaction, and benthic "landscapes." The next day, 10 papers were presented in the first session, "Biological Productivity of the Ocean and its Determining Factors." Several of the papers combined biological and physical oceanography and covered topics such as the production system in the subarctic Pacific (C. B. Miller, Oregon State University, Corvallis), effects of interannual variation of currents on fisheries, including the Kuroshio (T. Sugimoto and M. Kobayashi, Ocean Research Institute, Tokyo) and the Tsugaru currents (K. Mizuno, Far Seas Fisheries Laboratory, Shimizu, Japan), and current-topography interactions and the effects on seamount productivity (Boehlert). Other interesting papers covered the variability and structure of frontal zones in the northwest Pacific (A. A. Malyshev and V. B. Darnitsky, Pacific Research Institute of Fisheries and Oceanography, Vladivostok) and the South Pacific (V. P. Pavlychev, Darnitsky, and I. A. Zhigalov, same institution).

The second session, "Short-Term Geochemical Processes and Their Impact on Ocean Bioproductivity," was highlighted by an experimental techniques paper on proton spin relaxation tomography applied to oceanography (U. K. Kopville, Quantum Oceanology Laboratory, Pacific Oceanological Institute, Vladivostok). Seven papers were presented in the third session, "Structure and Dynamics of Water Masses of the Biologically Active Zones in the Pacific Ocean." Notable among them were papers on vertical structure and internal waves at a shelf boundary (V. I. Ilyichev and V. V. Navrotsky, Pacific Oceanological Institute, Vladivostok) and an investigation of mid-latitude North Pacific winter wind systems (Seckel).

The languages of the meeting were Russian and English; simultaneous translations were provided. Most papers and sessions elicited considerable discussion. A formal round table discussion that was held the afternoon of August 10 covered means of fostering cooperation in marine sciences in the Pacific Basin. This included discussion by a wide variety of foreign participants, a statement of the goals and work of the PSA Scientific Committee on Marine Sciences by Ilyichev, and reports on the work of the following scientific institutes in Vladivostok by their respective directors: Institute of Marine Biology (A. V. Zhirmunsky), Pacific Institute of Research on Fisheries and Oceanography (TINRO; V. P. Pautov), Institute of Ocean Economics (V. A. Fedoseev), and Far Eastern Regional Institute of the State Committee on Hydrometeorology and Environmental Control (V. G. Fedorey). The discussions of this round table will be published in *Science in the U.S.S.R.*, a journal published in five languages and intended for a popular audience.

Two items of the planned work of the Scientific Committee on Marine Sciences, aside from the symposia, are of interest. First is the center for information exchange. Ilyichev has offered to support a center at the Pacific Oceanological Institute in Vladivostok to distribute scientific articles in the marine sciences. He proposes that individuals and institutions send copies of articles marked "for distribution" to the Pacific Oceanological Institute (7 Radio Street, Vladivostok 690032, U.S.S.R.). He will make an acquisitions list available, and anyone who submits articles may request any of the other articles on the list. There will also be extensive distribution to developing nations of the Pacific.

The second area of committee work involves multinational scientific expeditions. The first of these, involving Soviet, U.S., and Japanese scientists, began in June 1986 (for 120 days) on the Soviet research vessel *Academic A. Vinogradov*. This expedition will concentrate on geochemistry of mineral resources in the central Pacific. Although there is, as yet, no formal mechanism to form future expeditions, several were discussed informally by participants at the meeting and may be brought to the attention of the committee in the future.

In addition to the scientific session described above, a variety of informal discussions between scientists of the participating nations took place. The foreign participants spent August 11 visiting Vladivostok, a city that has generally been closed to foreign visitors. We toured the city, visited the Geological Institute, and met the director, S. A. Shcheka. On August 13, we arrived in Khabarovsk, where we met with scientists of five institutes of the Far Eastern Science Center.

Abstracts for many of the papers presented were distributed at the meeting. Full papers will be published in a separate volume by the Pacific Oceanological Institute and should be available early in 1987. Questions concerning further information on the meeting or specific papers may be directed to any of the four American participants:

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Plans for future symposia were considered at the final sessions. The committee decided that the symposia will be held in even-numbered years, between meetings of the Pacific Science Congresses and Intercongresses. The Second Pacific Symposium on Marine Sciences, to be held in the Soviet Union in 1988, will concentrate on marine resources of the Pacific Basin. The next Pacific Science Congress will be held from August 20-30, 1987, in Seoul, South Korea (note that the abstract deadline for the congress has been extended until early May). There are a variety of sessions of interest to oceanographers. Programs and the call for papers are available from the Secretariat, XVI Pacific Science Congress, KPP Box 1008, Seoul, Korea. The next Intercongress will be held in 1989 in Chile.

This report was contributed by George W. Boehlert, Southwest Fisheries Center Honolulu Laboratory, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Honolulu, Hawaii.