



# Association Affairs

PACIFIC SCIENCE ASSOCIATION

## ANNOUNCEMENTS

Planning is in the advanced stage for the 11th Pacific Science Inter-Congress. The Inter-Congress will be held at the Sheraton Tahiti in Tahiti, French Polynesia from 2–6 March 2009. The conference will have plenary and parallel sessions, invited keynote lectures, poster sessions, as well as cultural activities and optional post-conference field trips.

The main theme of the Inter-Congress is “Pacific Countries and their Ocean: Facing Local and Global Changes”. Five parallel sessions have been organized around the following sub-themes:

- Ecosystems, Biodiversity and Sustainable Development
- Climate Change and Ocean Acidification
- Health Challenges in the Pacific: Infectious Diseases, Non-communicable Diseases, and Health Workforce
- Culture and Politics: The Stakes of Modernity
- Governance and the Economy: Future Challenges for the Pacific

There will also be a Plenary Session that will discuss inter- and intra-regional cooperation in the Pacific. Sub-sessions on specific topics are being organized under the various session themes, and are designed to facilitate multidisciplinary linkages and interactions.

The PSI-09 organizers recognize the perceived high costs of traveling to French Polynesia, and have arranged for significantly discounted rates on airfares from major destinations in North America, Europe, Japan, and Australia. Reduced rates have also been negotiated with hotels in Tahiti. In addition, registration fees include most meals except for breakfast, and so participants’ non-accommodation and non-excursion costs are reduced. There is a significant discount for Early Bird Registration. Students are exempt from all registration fees, and low-cost dorm and small hotel venues have been set up to reduce their costs.

**Early Bird Registration for PSA members: € 240**

**Early Bird Registration for non-PSA members: € 250**

**Late Registration for PSA members: € 320**

**Late Registration for non-PSA members: € 340**

**Student Registration: Free**

PSI-09 has a **Young Scientist Grant Program** that will award € 500 grants to 50 scholars/students under age 35. There is also a program to cover full costs for selected scientists from less-developed countries. Please contact the PSI-09 organizers for details.

Further details, and abstract submissions, registration, and hotel reservations can be made via the PSI-09 website, at [www.psi2009.pf](http://www.psi2009.pf).

**Deadlines for Abstracts and Registration:**

**Abstract submission:** 30 September 2008

**Young Scientist Grant submission:** 30 September 2008

**Abstract results:** 31 October 2008

**Grant results:** 31 October 2008

**Early bird registration closes:** 31 October 2008

**Accommodation Bookings Close:** Early February 2009

ACTIVITIES

**PSA Symposium on “Pacific Science: U.S.-Asia/Pacific Collaboration in Advancing Science in the 21st Century” at the AAAS-Pacific Division Meeting**

With generous support from the National Academy of Sciences in Washington DC, the Pacific Science Association organized and sponsored a symposium on “Pacific Science: U.S.-Asia/Pacific Collaboration in Advancing Science in the 21st Century” at the American Association for the Advancement of Science’s Pacific Division (AAAS-PD) Meeting in Waimea, Hawaii from 15–20 June 2008.

The objective of the symposium was to bring together scientists with experience in collaborative international research in Asia and the Pacific to discuss the opportunities and challenges for enhanced collaboration between American scientists and their counterparts in the Asia-Pacific region. Although there are many examples of very successful U.S.-Asia-Pacific scientific collaborations, these endeavors can also present challenges for researchers. This symposium addressed broader issues of collaboration, but focused on presenting examples of successful efforts that designed and conducted research that has both advanced science as well as other goals such as capacity-building and information repatriation that are important to less-developed nation-states. The meeting also addressed how regional scientific organizations, such as the Pacific Science Association, the ICSU’s Regional Office for Asia & Pacific, and the Science Council of Asia, have important roles in addressing these issues. Given increasingly critical issues of common concern such as climate change, biodiversity loss, and the demographic, environmental and social implications of globalization, greater emphasis on research that is both multidisciplinary in nature and international in scope is critical to advancing our scientific understanding of these issues and in providing information required to make scientifically sound decisions to societies and policymakers.

Dr. Peter G. Brewer, Senior Scientist at the Monterey Bay Aquarium Research Institute (MBARI), gave a presentation on *Exploring the Unanticipated Consequences of Ocean Acidification by Fossil Fuel CO<sub>2</sub>*, which discussed the massive on-going transfer of fossil fuel CO<sub>2</sub> from air to sea that is now drawing increasing scientific and public attention. Some 530 billion tons of fossil fuel CO<sub>2</sub> have already been disposed of in the ocean, and the invasion rate is now about 1 million tons of CO<sub>2</sub> per hour. Such quantities and rates rival or exceed those of major geologic events in Earth’s history, and the resulting rise in dissolved oceanic CO<sub>2</sub> and lowering of ocean pH are, when combined with global warming, widely believed to pose major challenges for much marine life. Early scientific attention has been focused on calcifying marine systems, such as coral reefs and calcareous phytoplankton, as the degree of upper-ocean supersatura-

tion with aragonite is progressively lowered. Issues of experimental technique and the adaptability of differing strains of marine organisms are now being vigorously debated. The oceanic regions that already face the most CO<sub>2</sub> stress are the huge mid-depth oxygen minimum regions in the tropical oceans, and these regions may be expected to expand and intensify. There are formal thermodynamic limits beyond which animals cannot adapt, and these will begin to exert controls. Dr. Brewer described the problems, the observing strategies, the likely consequences, and how MBARI is working with regional counterparts in ocean acidification research.

Dr. J. Scott Hauger from the Desert Research Institute presented a paper co-authored with Qingwei Sun (Cold and Arid Regions Environmental and Engineering Research Institute, China), and Atsushi Tsunekawa (Arid Land Research Center, Tottori University, Japan) on *Global Collaboration to Address Global Problems: Trans-Pacific Collaboration for Research on Global Change and Sustainable Living on Arid Lands*. Dr. Hauger described how global climate and demographic changes are strongly impacting arid lands and the people who live in them in ways that are important but not always well understood. Understanding the nature, scope, timing, and impacts of change will be critical to the nature and quality of life in arid lands. International research collaboration to address global problems can have a multiplier effect for intellectual capital and facilitate knowledge transfer. It provides a platform for comparative and parallel studies of phenomena as observed across the world's drylands, and provides researchers with access to facilities and equipment not locally available. Well-managed collaborations can combine resources and make for a more efficient research enterprise. Since 2004, the Desert Research Institute, has worked with the Arid Lands Research Center at Tottori University in Japan and The Cold and Arid Regions Environmental and Engineering Research Institute of the Chinese Academy of Sciences located in Lanzhou, China to develop and implement collaborative research to address problems of sustainable living on arid lands. Dr. Hauger documented the course of building these collaborations, including successes to date, problems and barriers to effective collaboration, as well as lessons learned that can be applied for future efforts and to help inform other research collaborations across the Pacific Rim.

Dr. Christofer Boggs and Dr. Samuel G. Pooley gave a paper on *International Scientific Collaboration at the NOAA Pacific Islands Fisheries Science Center*, which described PIFSC's engagement with regional counterparts in collaboration on a wide range of research fronts, ranging from fisheries management with Asian fishing nations, to fisheries by-catch research in Latin America and the South Pacific, to sea turtle research throughout the Pacific. All of this work requires strong person-to-person connections between researchers at PIFSC with their international peers.

Dr. Jack Regalado from the Missouri Botanical Garden presented a paper on *International Cooperation in the Study of Plant Diversity in Vietnam, 1993-2008*, which was co-authored with Le Xuan Canh, Tran Huy Thai, Tran Minh Hoi, Nguyen Tien Hiep, Vu Xuan Phuong, Ninh Khac Ban (Institute of Ecology and Biological Resources, Vietnam Academy of Science and Technology), Phan Ke Loc, Nguyen Nghia Thin (Hanoi National University), Nguyen Van Tap (National Institute of Medicinal Materials, Ministry of Health), Vu Van Dung (Forest Inventory and Planning Institute, Ministry of Agriculture and Rural Development), Nguyen Huy Dung, and Leonid V. Averyanov (Komarov Botanical Institute, Russian Academy of Sciences). The paper described how recent progress in field explorations and scientific studies of plant diversity have resulted in the discovery of new taxa and new additions to the flora of Vietnam. The collaborative efforts of the *Vietnam Botanical Conservation Program*, a scientific cooperation between the Institute of Ecology and Biological Resources and the Missouri Botanical Garden have significantly contributed to the revitalization of plant diversity research in Vietnam. More than two hundred new taxa, including thirteen genera, of higher vas-

cular plants have been described and seventy seven new records of plants have been similarly documented—a remarkable 3% increase in the known flora of the country. In addition to research activities, the Program has worked closely with Vietnamese partner institutions to develop competence and build capacity for the conservation and sustainable use of plant diversity. Over the past fifteen years, through its many research and training activities, the VBCP program helped establish local infrastructure that can increasingly assume responsibility for conserving and sustainably managing Vietnam's rich biodiversity. A recent grant supported the expansion of capacity-building programs for research and conservation in Laos and Cambodia.

Dr. David Schindel, Executive Secretary of the Consortium for the Barcode of Life at the Smithsonian Institution, gave a paper on *DNA Barcoding: International Collaboration for Species Identification in Research, Conservation, and Regulatory Affairs*. DNA barcoding was proposed in 2003 as an approach to identifying the species to which biological specimens belong using a short, standardized DNA sequence. Reference barcode data records are obtained by sequencing the barcode gene region of specimens identified by expert taxonomists. There are currently more than 350,000 barcode records from about 40,000 species. Reference records are deposited in GenBank for public access. Non-taxonomists such as government regulators and border inspectors can obtain identifications by comparing barcode sequences from unidentified organisms with the reference records. Because only a tiny amount of tissue is needed, identification of immature stages, tissue fragments, and processed products is readily facilitated. Barcoding projects, networks, and collaborative initiatives have been launched for basic research on an array of taxonomic groups and on a wide range of applied regulatory issues (e.g., species conservation, environmental monitoring, consumer protection). Two examples of great importance to Pacific nations are the use of barcodes to control the spread of invasive and pest species, and to better characterize and protect commercial fish species. The Consortium for the Barcode of Life (CBOL) promotes international participation and collaboration and has 170 Member Organizations from 50 countries, and plans to expand both new and existing barcoding projects in many countries in Asia and the Pacific.

Finally, Dr. Nancy Lewis (East-West Center, and PSA Vice President) gave a presentation on *The Pacific Science Association: Advancing International Collaborative Research in the Asia-Pacific Since 1920*, which outlined PSA's role in advancing science, technology, and sustainable development in and of the Asia-Pacific region by actively promoting interdisciplinary and international research and collaboration.

### **Climate Change and Biodiversity in Melanesia Project**

New datasets on projected climate change impacts in Melanesia have been posted on the Climate Change and Biodiversity in Melanesia (CCBM) project website (<http://www2.bishopmuseum.org/ccbm/>). CCBM is a joint project led by Bishop Museum and Pacific Regional Environment Programme (SPREP) along with the Pacific Science Association (PSA) and Indo-Pacific Conservation Alliance (IPCA), and is an 18-month project funded by the MacArthur Foundation. The geographic scope of the project includes Papua New Guinea and Indonesia's Papua Province, Solomon Islands, Vanuatu, New Caledonia, and Fiji. The new datasets include information on projected sea-surface and land temperature changes, changes in rainfall distribution and intensity, sea-level rise, ocean acidification, and other information critical to understanding impending changes in the next 90 years. Also newly available are a series of White Paper reports on climate change and biodiversity, written by scientific experts on the various topics and commissioned by the CCBM project. More information, including a synthesis White Paper, will continue to be added to the website in the near future, and DVDs with the full array of information will be sent to important stakeholders in the near future.

Association Affairs

151

### Membership Application

I/We wish to enroll in the Pacific Science Association in the following membership category:

- Associate scientific institution (US\$50)
- Corporate associate (US\$100)
- Individual associate (US\$40)

PLEASE PRINT

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- Enclosed is a  check  money order in U.S. funds, payable to Pacific Science Association.
- Please charge my  Visa  Mastercard

Card number: \_\_\_\_\_ Expiration date: \_\_\_\_\_

Signature: \_\_\_\_\_

Today's date: \_\_\_\_\_

Return to Pacific Science Association, 1525 Bernice St., Honolulu, Hawaii 96817, USA.



## Executive Board

### PRESIDENT

Dr. Congbin Fu  
Chinese Academy of Sciences  
Beijing, China  
fcb@tea.ac.cn

### VICE-PRESIDENT

Dr. Nancy Davis Lewis  
Director, Research Program  
East-West Center  
Honolulu, Hawai'i, USA  
lewisn@eastwestcenter.org

### SECRETARY-GENERAL

Dr. Makoto Tsuchiya  
Dean of the Faculty of Science  
University of the Ryukyus  
Nishihara, Okinawa, Japan  
tsuchiya@sci.u-ryukyu.ac.jp

### TREASURER

Dr. Azizan Abu Samah  
Dept. of Geography  
University of Malaya  
Kuala Lumpur, Malaysia  
azizans@um.edu.my

### PAST-PRESIDENT

Prof. Kiyoshi Kurokawa  
The University of Tokyo  
Tokyo, Japan  
kurokawa@is.icc.u-tokai.ac.jp

### ORDINARY MEMBERS

Prof. Chang-Hung Chou  
Director, Research Center for  
Biodiversity  
China Medical University  
Taiwan, China  
choumasa@mail.npust.edu.tw

Dr. Mazlan Othman  
Director General  
National Space Agency  
Malaysia  
mazlan@angkasa.gov.my

Academician Valentin Sergienko  
Chairman, Russian Academy of  
Sciences-Far Eastern Branch  
Vladivostok, Russia  
sergienko@hq.febras.ru

Dr. Ana Taufe'ulungaki  
Pro Vice Chancellor, Research and  
Graduate Affairs  
University of the South Pacific  
Suva, Fiji  
taufeulungak@usp.ac.fj

### SECRETARIAT

John Burke Burnett  
Pacific Science Association  
Honolulu, Hawai'i, USA  
burnett@pacificscience.org

## Pacific Science Association Membership Information

The Pacific Science Association is a regional, nongovernmental scientific organization founded in 1920. The objectives of the association are to advance science and technology in the Pacific region by increasing interdisciplinary collaboration; to build capacity in science and technology; to encourage science for public policy and the common good; and to promote the "science of the Pacific" and Pacific Island involvement in regional and international scientific activities. Scientific committees have been long established to study and to seek solutions for important problems of Pacific interest. Scientific task forces have been established to explore interdisciplinary and multidisciplinary areas identified as relevant.

Regular members of the association are adhering organizations (e.g., the national academy of science or a like body) from each country or definite geographic area within or bordering the Pacific Ocean, or with scientific interests in the region. In addition, associate membership may be held by individual scientists, scientific societies and institutions, and corporations.

The association is directed by the Pacific Science Council with its elected executive board. The executive board meets annually and makes recommendations to the council, which meets during congresses and inter-congresses. The president serves as chair of the council. The secretariat is located at:

Bishop Museum  
1525 Bernice Street  
Honolulu, Hawai'i 96817, USA  
Tel: (1) 808-848-4124  
Fax: (1) 808-847-8252  
E-mail: [psa@bishopmuseum.org](mailto:psa@bishopmuseum.org)  
Website: <http://www.pacificscience.org>