



Association Affairs

PACIFIC SCIENCE ASSOCIATION

PSA ACTIVITIES

The 21st Pacific Science Congress

The Pacific Science Association recently concluded a very successful 21st Pacific Science Congress, held June 12–19 at the Okinawa Convention Center in Okinawa, Japan. Hosted by the University of the Ryukyus with support from the Science Council of Japan, the Congress was attended by over 850 scientists from 48 countries and territories throughout the Pacific region and the world.

The 21st Pacific Science Congress (PSC-21) was organized by the University of the Ryukyus and Pacific Science Association, and sponsored by the Science Council of Japan, Ecological Society of Japan, Japanese Coral Reef Society, Japanese Society for Marine Biotechnology, Japanese Society of Tropical Medicine, The Association of Japanese Geographers, The Botanical Society of Japan, The Geological Society of Japan, The Human Geographical Society of Japan, The Japanese Society for Oceanic Studies, The Japanese Society of Fisheries Science, The Oceanographic Society of Japan, The Zoological Society of Japan, and The Japan Society of Island Studies. The PSC-21 was co-organized by University of the Ryukyus, Okinawa Prefectural University of Arts, Okinawa Prefectural College of Nursing, Okinawa University, Okinawa International University, Meio University, Okinawa Christian University, and Okinawa Women's Junior College, and co-sponsored by the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) and the Meteorological Society of Japan.

The Science Council of Asia held their conference contemporaneously with the PSC-21, and this cooperative partnership with PSA yielded a Joint Symposium on “Energy and the Environment”.

The theme of the Congress (PSC-21) was “Diversity and Change: Challenges and Opportunities for Managing Natural and Social Systems in the Asia-Pacific”. There were six Sub-themes that provided an umbrella under which dozens of specific multi-paper sessions were organized. Over 450 individual papers were presented, along with approximately 170 posters. The six subthemes and the associated sessions were:

Maintaining Natural Diversity

- Patterns of biodiversity in the Pacific
- Biodiversity databases in Asia-Pacific
- Biodiversity and coral reefs in Asia-Pacific

- Long-term ecological research projects in Pacific ecosystems and PABITRA landscapes
- Social ecology and evolution of the Old World monkeys
- Association of prokaryotic algae and tropical ascidians: diversity and potential as bio-resources
- Biology of Deep Chemosynthetic Communities
- Coral reef conservation
- Coral reefs and coral reefs fisheries: Knowledge and management
- Coral transplantation: Theory, practice and evaluation
- Natural resource management and protection of marine and terrestrial ecosystems
- Current topics in marine mammal sciences
- Challenges of rehabilitation in the post-tsunami and capacity building for mangrove ecosystem in the Pacific and Asia regions
- Biological, chemical and physical processes in controlling of coastal marine ecosystem
- Diversity of Ethnobotany
- Sustainable Fisheries Management Based on Marine Ecosystem Approach

Technology for Sustainable Societies

- Waste management and energy supply for sustainable archipelagic environments
- Biomedical research of natural products from marine and terrestrial sources of the Far East
- PEACESAT Program
- APT Telemedicine Initiative
- Assessment of natural hazards in the Asia-Pacific region

Human Diversity

- Origins and dispersals of Asia-Pacific Peoples
- The peopling of East Asia: Population movement and demographic history
- Human adaptations and impacts on islands: Advances in Pacific rim historical ecology
- Artifact and artifice in contemporary Austronesian technological traditions
- Structural and sociocultural diversity of languages in the Pacific rim
- Explorations of conversational discourse in Okinawa: Grammar, interaction and cognition
- Shaky Okinawan identity and unchanging characteristics
- US military bases and peace
- Realignment of US military bases and security issues in Asia and the Pacific regions

Threats, Challenges, and Hazards

- Global change, the Asian monsoon, and extreme weather and climate
- Land-human interaction in oceanic atoll islands
- Zoonoses and pathogens of public health significance
- Frontiers in medical virology: Cancer therapy with oncolytic viruses
- Infectious diarrhea and the burden on public health
- Globalization and infectious diseases: malaria diversity on islands
- The present situation of cestode zoonoses in Asia and the Pacific
- Tropical medicine and area studies in Asia and Pacific: Integration towards the better population health of the region
- Human resources for health in Okinawa and the Pacific region
- Health hazards posed by marine animals in Pacific region

- The biogeochemical consequences of ocean acidification: new approaches for the 21st century
- Socio-economic implications of ocean acidification
- Geological calamities in the Pacific region: Distribution, mechanism and prevention
- Response of vector mosquitoes to the environmental change

Science and Society

- Science museums
- Augmenting school curricula
- Strengthening linkages between scientists and policymakers
- Communicating science: connecting science and society in the Pacific
- Gender, science, and technology: Vision for the 21st Century

Islands in Development

- Globalization and Human Dynamics: Heritage preservation / Environmental sustainability
- Globalization and Human Dynamics: Family dynamics
- Globalization and Human Dynamics: Global education
- Globalization and Human Dynamics: Mobility
- Globalization and Human Dynamics: International environment and local communities
- Globalization and Human Dynamics: Migration, society, and networks: A transnational challenge in Asia-Pacific
- Health and nursing in the islands
- Sustainable island society
- Sustainable agriculture in tropical and sub-tropical islands for higher production based on environmental conservation and effective utilization of agricultural resources

A special symposium on “Strengthening Linkages between Science and Policy”, sponsored by the Institute of Advanced Studies at United Nations University, was held on 14 June. Dr. A. H. Zakri (Director, IAS-UNU) and PSA President Dr. Kiyoshi Kurokawa provided opening remarks. Dr. Mohamed Hassan (Executive Director, TWAS – Academy of Sciences for the Developing World [and] President of the African Academy of Sciences) gave a presentation on “The Role of Scientists in Making Policy Work: Linking Scientists to Policy Makers”. Dr. Calestous Juma (Kennedy School of Government, Harvard University) spoke regarding “Science and Innovation Policy: The New Ecology of Advice”. Dr. Charmine Koda (Director, U.N. Information Centre) gave a presentation on “Challenges and Opportunities in Doing Public Outreach of U.N. Scientific News”. Dr. S. R. Rao (Ministry of Science and Technology, India) presented on “Practical Issues: Linking Science and Policy”. These presentations were followed by an afternoon session on “Linking Policy and Science: Experiences and Opportunities” chaired by Dr. Balakrishna Pisupati (UNU-IAS). Dr. Rod Lamberts (Centre for Public Awareness of Science, Australian National University) spoke regarding “Science and Technology Policy in the Pacific Islands: A Science Communication Perspective”. Dr. Ancha Srinivasan (Institute for Global Environment Strategies) gave a presentation on “Bridging Science and Policy in the Context of the Post-2012 Climate Regime: Lessons from IGES Consultations in Asia. Dr. Tatiana Gadda (UNU-IAS) spoke regarding “Government Policies and Sustainable Consumption: The Case of Seafood Consumption Patterns in Tokyo”. Dr. Monte Cassim (Ritsumeikan Asia-Pacific University) spoke on “Transforming Joys of Discovery to Wealth for All: The Challenge of Bringing Science to Society”. Dr. Yuko Nishida

(National Planning Agency, Japan) spoke regarding “Environmental Policies to Reduce Energy Consumption”. Dr. Alphonse Kambu (Ishikawa International Cooperation Research Centre) spoke on “Scientific Research Involving Indigenous and Local Communities: Issues and Concerns”. Dr. Catherine Monagle (UNU-IAS) spoke on “Governing Science for Developing Countries”.

A Joint Symposium on Energy and the Environment, hosted by the Science Council of Asia and Pacific Science Association, was held on June 16. Following Keynote Speeches by Dr. Rajendra Pachauri (Chairman, Intergovernmental Panel on Climate Change) and Prof. Leo Tan (Singapore National Academy of Science), there were two panel discussions. The first discussion was on “Energy and the Environment”, and included Dr. Pachauri, Dr. Kenji Yamaji (Univ. of Tokyo), Dr. Mohamad Ali Hassan (Univ. Putra Malaysia), Dr. Li Ji (Institute of Energy Economics, Japan and Ministry of National Development and Reform, China), and Dr. Junichiro Tsutsumi (Univ. of Ryukyus). The second panel concerned “Education and the Environment”, moderated by Dr. Fumiko Kasuga (National Institute of Health Sciences, Japan), and including discussants Dr. Norman Okamura (Univ. of Hawaii), Dr. Katsunori Suzuki (Institute of Advanced Studies, U.N. University), Dr. Randy Thaman (Univ. of South Pacific), and Dr. Makoto Tsuchiya (Univ. of Ryukyus). The third and final panel discussion was on “Water Resources”, moderated by Dr. Kunitoshi Sakurai (Okinawa University), and including Dr. Gemunu Herath (Univ. of Peradeniya), Dr. Shinichiro Ohgaki (Univ. of Tokyo), Dr. Mafizur Rahman (Bangladesh University of Engineering and Technology), and students from Miyako Agricultural Senior High School.

Plenary Addresses included keynote speeches by several illustrious scientists. At the Opening Ceremony on 13 June, Dr. A. H. Zakri (Director, United Nations University / Institute of Advanced Studies (UNU / IAS) gave a plenary talk on “Ecosystems and Human Well-being: Findings of the Millennium Ecosystem Assessment and the Way Forward”. On 14 June, Dr. Shigeru Omi (Regional Director of the Western Pacific Regional Office, World Health Organization) gave a plenary address on “Health and Civilization”, and Dr. Hiroko Sho (Board of Governors, Okinawa Institute of Science and Technology and Professor Emeritus of the University of the Ryukyus) addressed the audience on the subject of “Longevity and Food-Culture in Okinawa”. On 15 June, Dr. Calestous Juma (Former Executive Secretary of the United Nations Convention on Biological Diversity, and currently Professor at Harvard University) gave a talk on “The New Age of Conservation Innovation: Science, Technology and Institutional Change”. On 16 June, Dr. Leo Tan Wee Hin (President, Singapore National Academy of Science and Professor at Nanyang Technological University) gave a plenary address on “Linking Science with Society: Enhancing Capacity building through Science Education and Innovation”. On 17 June, Dr. Laura A. Liswood (Secretary General of the Council of Women World Leaders, Senior Advisor of Goldman Sachs) gave a keynote speech on “Achieving Society’s Full Potential in the 21st Century: The Benefits of Gender Equality—The Case for Diversity”, and Dr. Randy Thaman (Professor, University of the South Pacific) addressed the plenary session with a talk on “Sinking Island Arks—Island Biodiversity and Island Living under Threat and the Priority Need for Island Biodiversity Conservation”.

The Congress was honored by the presence of two members of the Japanese Imperial Family. H.I.H. Princess Hisako Takamado addressed the Opening Plenary session on 13 June. On 17 June, H.I.H. Prince Akishino gave a plenary address on his biological fieldwork in Southeast Asia.

During the Congress, three medals were awarded to scientists who have made exceptional contributions to science in the Pacific region. The Herbert E. Gregory Medal, selected by the Bishop Museum, was awarded to Professor Dieter Mueller-Dombois, Ph.D., Dr.h.c, a seminal leader in the study of Pacific botany and ecosystems. The Shinkishi Hatai Medal was awarded by the Science Council of Japan to two distinguished Pacific marine biologists, Dr. Tsuyoshi

Kawasaki (Professor Emeritus, Tohoku University, Japan) and Dr. Shirley Winifred Jeffrey (CSIRO Marine Research, Australia).

The success of the Congress was largely due to the outstanding efforts of Dr. Teruo Iwamasa, President of the University of the Ryukyus and Chairman of the PSC-21 Local Organizing Committee; Dr. Moshin Morita, former President of the University of the Ryukyus and former Chairman of the PSC-21 Local Organizing Committee; Dr. Hiroshi Kakazu, Vice President of the University of the Ryukyus, Dr. Makoto Tsuchiya, Secretary General of the PSC-21; Ms. Kaori Kinjo, Secretary of the PSC-21, the University of the Ryukyus Office of International Affairs and the members of the Local Organizing Committee, including Tokumasa Miyagi, Miwako Noguchi, Kunitoshi Sakurai, Tomoaki Toguchi, Eiki Senaha, Shigemi Kamiyama, Choshin Sunagawa, and Keiichi Omoto.

PSA Council Meetings

The PSA Council convened during the 21st Pacific Science Congress to conduct PSA business, including the scheduled election of a new PSA Executive Board to serve until the 22nd Pacific Science Congress in 2011. Prof. Congbin Fu was elected as President, replacing Prof. Kiyoshi Kurokawa, who remains on the Board as Past-President. Dr. Nancy Lewis, PSA's former Secretary-General and Treasurer, was elected as the new PSA Vice-President. Dr. Makoto Tsuchiya was elected as Secretary-General and Professor Dr. Azizan Abu Samah as PSA Treasurer. Ordinary Members include: Prof. Chang-Hung Chou, Professor Datuk Dr. Mazlan Othman FASc, Academician Valentin Sergienko, and Dr. Ana Taufe'ulungaki. Two additional ex-officio Board Members are yet to be announced, including the Chair of the 22nd Pacific Science Congress (2011) and the Chair of the 11th Pacific Science Inter-Congress (Tahiti, 2009).

The PSA Council also determined the venue for the next PSA Inter-Congress. French Polynesia was selected as the host of the 11th Pacific Science Inter-Congress, which will be held in Tahiti in early March 2009. Planning has already begun for the meeting, and more details will be announced in the next issue and on the PSA website at <http://www.pacificscience.org/congress2009.html>.

Climate Change and Biodiversity in Melanesia (CCBM) Project

The Bernice P. Bishop Museum and the Pacific Regional Environment Programme (SPREP), in close collaboration with the Pacific Science Association and the Indo-Pacific Conservation Alliance (IPCA), are leading an expert-led study to assess the vulnerability of biodiversity and island ecosystems in Melanesia to climate change. This project is one of eight grants from the MacArthur Foundation to identify the implications of climate change in the regions where the Foundation funds conservation efforts and to develop conservation and management approaches that address these threats. Other studies are addressing similar issues in Madagascar, Africa and the Caribbean.

There are three main component activities of the CCBM, which focuses geographically on Fiji, Vanuatu, New Caledonia, Solomon Islands, Papua New Guinea and the Indonesian province of Papua:

1. Assessing the current scientific understanding of the impacts of climate change and other biogeochemical processes (e.g. ocean acidification) on island and marine ecosystems in Melanesia. The objective is to facilitate and document the best state-of-the-science consensus on the implications of these anthropogenic processes on current and future conservation strategies, planning, and policies.
2. Assessing the institutional and socioeconomic adaptive capacity of Melanesian coun-

tries to effectively respond to climate change impacts including legislation, policies and capacity assessment.

3. Developing an integrated assessment of the vulnerability of Melanesia's biodiversity to climate change, based on Components 1 and 2.

Led by Bishop Museum, the assessment in Component 1 will include an extensive review of the current scientific understanding of how climate change will affect Melanesia's terrestrial and marine ecosystems. The information and data collated from literature reviews, data mining, digital maps, satellite imagery and consultations with experts will be compiled into an Environmental Information System (EIS) accessible via the Internet for use by conservation, research, and management groups. A multidisciplinary expert workshop will be held in September 2007 in Hawai'i to assess the best scientific understanding of climate change impacts on Melanesia and develop a series of white papers and slide presentations that summarize current knowledge.

All information, data, expert advice and white papers will be synthesized into a consensus report which will be presented in draft form at the 8th Pacific Islands Conference on Nature Conservation and Protected Areas in Papua New Guinea in October 2007. Researchers, managers and stakeholders attending the conference will be encouraged to provide feedback, additional information and recommendations. This input will be incorporated into the consensus report. A final vulnerability assessment report, based on the consensus report and other data that is gathered, will be completed in 2008. The final report will specify what additional research is needed, detail current scientific understanding and predictions of how climate change will impact the region's development and conservation efforts, and list suggestions for adapting conservation efforts to future projected climate changes.

Component 2 will assess the institutional and socio-economic capacity in Melanesia to adapt resource management practices, programs, policies and legislation to mitigate the impacts of climate change. SPREP will document all current management policies and programs and identify impediments to and opportunities for successful biodiversity conservation and management in the face of projected climate warming and related effects. Additionally, the study will evaluate the consequences of climate change on two important economic sectors, such as coastal fisheries and tourism, and examine how conservation practices can be used to assess the impacts of climate change on those sectors.

After completing the two component assessments, Bishop, SPREP, PSA, and IPCA will integrate the two reviews into a Final Integrated Vulnerability Assessment Report, including a set of recommendations for policymakers and managers to develop and implement development and conservation strategies that reflect an appropriate and robust understanding of expected climate change. The final assessment will be incorporated into future revisions of the Action Strategy for Nature Conservation, the Pacific Islands Framework for Climate Change and other conservation plans and strategies. This report will also be used to develop a range of communication products for a variety of audiences in Melanesia and beyond.

The final results and products of CCBM will provide conservationists and resource managers in Melanesia with information and tools they need to develop conservation approaches that can successfully address the influence of climate change on biodiversity and social welfare. Additionally, the products will supply the MacArthur Foundation and other grant-making organizations with information they need to determine which proposals have the potential to effectively address the impacts of climate change and merit funding. Efforts like this assessment are an essential step in ensuring that conservation efforts succeed in tomorrow's climate.

ANNOUNCEMENTS

New PSA Executive Board

As noted above, a new PSA Executive Board was elected by the Pacific Science Council at the 21st Pacific Science Congress. The full list and institutional affiliations of the new PSA Board are:

PSA PRESIDENT: Dr. Congbin Fu, Institute of Atmospheric Physics, Chinese Academy of Sciences (China-Beijing)

PSA VICE-PRESIDENT: Dr. Nancy Lewis, Director, Research Program, East-West Center (USA)

PSA SECRETARY-GENERAL: Dr. Makoto Tsuchiya, Dean of the Faculty of Science, University of the Ryukyus (Okinawa)

PSA TREASURER: Dr. Azizah Abu Samah, Dept. of Geography, University of Malaya (Malaysia)

PAST-PRESIDENT: Prof. Kiyoshi Kurokawa, Science Advisor to the Prime Minister (Japan)

ORDINARY MEMBER: Prof. Chang-Hung Chou, Director, Research Center for Biodiversity, China Medical University (China-Taipei)

ORDINARY MEMBER: Dr. Mazlan Othman, Director General, National Space Agency, Malaysia (Malaysia)

ORDINARY MEMBER: Academician Valentin Sergienko, Chairman, Russian Academy of Sciences – Far Eastern Branch (Russia)

ORDINARY MEMBER: Dr. Ana Taufe'ulungaki, Pro Vice Chancellor, Research and Graduate Affairs, University of the South Pacific (Pacific Islands)

The 11th Pacific Science Inter-Congress: Tahiti, March 2009

Following a compelling bid to the PSA Council at the Congress, French Polynesia was selected as the host of the 11th Pacific Science Inter-Congress. The Inter-Congress will be held in Tahiti in early March 2009.

The theme of the 11th Inter-Congress is "Pacific Countries and their Ocean: Facing Local and Global Changes". The tentative topics of the Inter-Congress are:

- Ecosystems: Biodiversity and Resource Valuation
- Climate Variability: Impacts and Prevention
- Public Health: Threats to Public Health in the Pacific Region
- Culture and Politics: The Cultural and Political Stakes of Modernity
- Economy: Economic Challenges for the Future of the Pacific

Initial planning discussions were conducted at the Congress and more details will be announced as they are confirmed.

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

Prof. Congbin Fu
Institute of Atmospheric Physics,
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
lewisn@eastwestcenter.org

SECRETARY-GENERAL

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

TREASURER

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

PAST-PRESIDENT

Prof. Kiyoshi Kurokawa
Science Advisor to the Prime Minister
Japan
kurokawa@is.icc.u-tokai.ac.jp

ORDINARY MEMBERS

Prof. Chang-Hung Chou
Director, Research Center for
Biodiversity
China Medical University
China-Taipei
choumasa@mail.cmu.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
Russia
sergienko@hq.febras.ru

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

SECRETARIAT

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

Pacific Science Association Membership Information

Founded in 1920 and based in Honolulu, Hawaii, the Pacific Science Association (PSA) is a regional, non-governmental, scholarly organization that seeks to advance science and technology in support of sustainable development in the Asia-Pacific.

PSA facilitates interdisciplinary and international research and collaboration in the Asia-Pacific region, with a focus on key issues and problems in the region, in order to engage science in the service of human needs and to improve both the quality of life of the region's peoples and of the natural environment upon which all life depends. PSA serves as a catalyst for scientific and scholarly collaboration; develops scientific capacity within the region; fosters effective communication between scientists, policy makers and the public; actively involves the Pacific Island states in regional and international scientific activities; and promotes the "Science of the Pacific".

Through quadrennial Congress and Inter-Congress meetings, the Pacific Science Journal, and ongoing scientific working groups, PSA provides an interdisciplinary platform for scientists to discuss and review common concerns and priorities in the region. Through our scientific network, PSA links scientists from developed countries with those from developing countries, including the archipelagic and more remote states of the Pacific. PSA facilitates research initiatives on critical emerging issues for the region, such as biodiversity loss, climate change, infectious diseases, and the social implications of globalization, in which science can provide crucial information in a way that is required by both society and policymakers to make sound and informed decisions.

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
Website: <http://www.pacificscience.org>