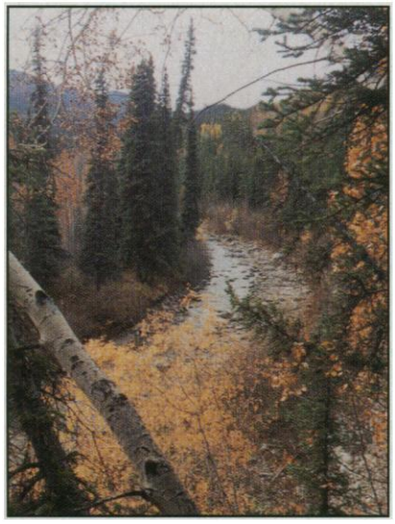
AAAS News and Notes

edited by Tiffany Ayers

MEETINGS

50th Arctic Science Conference Spotlights Alaskan Research

Most scientists, Laurence Irving once said, must rely on genius or luck to gain intellectual outlooks. But those working in Alaska, he added, need only look around them. Irving believed that scientists in Alaska were able to gain extraordinary insights because of their location, researcher Robert White recalled recently at the 50th AAAS Arctic Science Conference, a forum that Irving helped create.



Denali Park, established in 1917, provides a natural laboratory for research.

CREDIT: STEPHEN VOGEL

The outdoor laboratory described by Irving was at center stage during the 1999 Arctic Science Conference, held 19 to 22 September 1999 at the Denali National Park and Preserve in Alaska. The conference, which returned to the site of the first Alaska Science Conference, looked at 50 years of scientific advances in the North and was sponsored by AAAS, the University of Alaska Fairbanks, and the Arctic Institute of North America.

The first Alaska Science Conference was held at a time when Alaska was still a territory with a population of only 127,000. Conference organizers were interested in stimulating wider interest in research relating to the Alaskan area. The conference led to the establishment of the Alaska Division of AAAS, and in 1982 its name was changed to the Arctic Division. Most of the 300 members of the division reside in Alaska and in Canada's Yukon and Northwest Territories.

White recalled Irving's work in arctic biology, studying the way animals and plants dealt with the great changes in north temperate systems. Wartime challenges of arctic survival led to the first comprehensive studies on the physiology of human adaptation and cold acclimation. Irving studied the history and ways of indigenous people, including naming of birds, bird migration, and human survival techniques.

Today, the importance of Alaskan and arctic research is widely recognized. "Alaska has the potential of becoming a world-class science center," said George Rogers, professor emeritus of the University of Alaska Anchorage. "We have a unique setting here." Rogers reviewed the history of Alaska, shaped by the discovery of gold and oil, the fishing of salmon, and World War II. "Today, Alaska remains a key defense location, a source for seafood, and a booming tourism market."

But Rogers warned of a new kind of colonialism. "We are today an industrial colony driven by extraction of land and marine resources by and for giant national and international corporations," Rogers said. One devastating effect is sewage disposal in Alaskan harbors by international cruise lines.

Many conference sessions looked at issues pertinent to Alaska, including climate change, subsistence economy, and native place names. Troy Péwé, an expert on permafrost and its effects on life in the North, delivered a lecture on earth sciences in Alaska over the last 50 years. Richard Nicholson, AAAS executive officer, discussed the history of the association and the important role it will play in the future as the nation is confronted with scientific issues.

Terry Chapin, University of Alaska Fairbanks, looked at 50 years of ecosystem studies in Alaska, including its formation by shifting tectonic plates, booms and decreases in human population, and its ups and downs in economic prosperity. He noted the changes in permafrost, species composition, and growth of trees.

"All of these changes have implications for the functioning of Alaska ecosystems and for future rates of change in ecosystem properties in regional climate," Chapin said. "Alaska is just a place of change."

WORKSHOPS

AAAS Helps Universities Compete for Research

One important question in science policy has been how so-called "second tier" universities can work to enhance their research competitiveness. That question was addressed at a workshop, "Strategies for Competing in the Mainstream," hosted by AAAS's Research Competitiveness Program (RCP) and held in Coeur d'Alene, Idaho, on 1 to 3 October.

More than 50 people from the National Science Foundation's Experimental Program to Stimulate Competitive Research (EPSCoR) and the research and science policy communities gathered to consider strategies for winning research and development awards.

"The meeting looked at roles that everyone can play in achieving competitiveness," said Ed Derrick, RCP program associate. "It allowed an exchange of information between states and universities in an effort to find models that work." The conference focused on pursuing large-scale proposals, going after niche markets and emerging research areas, and developing inter-institutional collaborative proposals.

RCP has held a series of workshops to contribute to research competitiveness, including workshops on the future development of high-speed computing networks and how the network can best be developed to meet the needs of universities in remote and less high-tech areas.

RCP also offers consulting services in science policy, management, and administration. RCP recently provided a review of the Department of Marine Sciences at the University of Puerto Rico Mayaguez; worked with an ecology and environmental science initiative in Montana; and reviewed plans at Auburn University to develop seven major research centers. RCP's consulting services are provided by members of the science, engineering, and science policy communities under the management of AAAS staff.

For more information, e-mail rcp@aaas.org, visit the Web site at www.aaas.org/rcp, or call Ed Derrick at 202-326-6788.

FELLOWS

AAAS Members Elected as Fellows

In September the AAAS Council elected 283 members as Fellows of AAAS. These individuals will be recognized for their contributions to science at the Fellows Forum to be held on 19 February 2000 during the AAAS Annual Meeting in Washington, DC. The new Fellows will receive a certificate and a blue and gold rosette pin as a symbol of their distinguished accomplishments. Presented by section affiliation, they are:

Agriculture, Food, and Renewable Resources

Olin Darrell Anderson, USDA-ARS • Robert A. Blanchette, Univ. of Minnesota, St. Paul • Stella Melugin Coakley, Oregon State Univ. • Randy Gaugler, Rutgers Univ. • Bikram S. Gill, Kansas State Univ. • J. Perry Gustafson, Univ. of Missouri, Columbia • John H. Hill, Iowa State Univ. • Robert M. Hollingworth, Michigan State Univ. • Steven E. Lindow, Univ. of California, Berkeley • Joyce A. Nettleton, Institute of Food Technologists, Chicago • James H. Orf, Univ. of Minnesota, St. Paul • F. Abel Ponce de León, Univ. of Minnesota, St. Paul • David M. Weller, Washington State Univ. • James E. Womack, Texas A&M Univ.

Anthropology

Arthur C. Aufderheide, Univ. of Minnesota, Duluth • Henry C. Harpending, Univ. of Utah • John H. Moore, Univ. of Florida

Astronomy

Richard P. Binzel, Massachusetts Institute of Technology • Clark R. Chapman, Southwest Research Institute, Boulder • Heidi B. Hammel, Massachusetts Institute of Technology • Stephen S. Holt, NASA Goddard Space Flight Ctr. • John R. Percy, Univ. of Toronto

Atmospheric and Hydrospheric Sciences

Edward A. Boyle, Massachusetts Institute of Technology • Kuo-Nan Liou, Univ. of California, Los Angeles • Michael E. McIntyre, Univ. of Cambridge • Edward S. Sarachik, Univ. of Washington • John H. Seinfeld, California Institute of Technology

Biological Sciences

Thomas C. Baker, Iowa State Univ. • Michael Jeffrey Balick, New York Botanical Garden • Ad Bax, National Institute of Diabetes and Digestive and Kidney Diseases • William S. Bowers, Univ. of Arizona • Patrick O. Brown, Stanford Univ. • Camilo J. Cela-Conde, Univ. de las Islas Baleares, Palma de Mallorca, Spain • Senyon Choe, Salk Institute • G. Marius Clore, National Institute of Diabetes and Digestive and Kidney Diseases • Alan P. Covich, Colorado State Univ. • David H. Coy, Tulane Univ. • Eddie W. Cupp, Auburn Univ. • George P. Daston, Proctor & Gamble Co., Cincinnati • Chris Q. Doe, Univ. of Oregon • James Douglas Engel, Northwestern Univ. • James R. Ehleringer, Univ. of Utah • Thomas H. Eickbush, Univ. of Rochester • Gertrude B. Elion, Glaxo Wellcome (posthumous award) • Martin Elliott Feder, Univ. of Chicago • John R. Gold, Texas A&M Univ. • L. Earl Gray, USEPA • Kathleen J. Green, Northwestern Univ. Medical School, Chicago • Steven N. Handel, Rutgers Univ. • Rodney E. Harrington, Arizona State Univ. • Stephen C. Harvey, Univ. of Alabama, Birmingham • Donal A. Hickey, Univ. of Ottawa • Dominique G. Homberger, Louisiana State Univ., Baton Rouge • Edna Sayomi Kaneshiro, Univ. of Cincinnati • Peter S. Kim, Massachusetts Institute of Technology • Robert A. Lamb, Northwestern Univ. • Nancy C. Martin, Univ. of Louisville • James B. McClintock, Univ. of Alabama, Birmingham • Ann P. McNeal, Hampshire College • Dino Moras, Institute of Genetic, Cellular, and Molecular Biology, Illkirch, France • Peter Jay Morin, Rutgers Univ. • Diane M. Papazian, Univ. of California, Los Angeles • Louis F. Pitelka, Appalachian Lab., Frostberg, MD • Hugh M. Robertson, Univ. of Illinois, Urbana • Michael Seibert, National Renewable Energy Lab., Golden, CO • George P. Smith, Univ. of Missouri, Columbia • Hilary Swain, Archbold Biological Station, Lake Placid, FL • John W. Taylor, Univ. of California, Berkeley • Mia J. Tegner, Scripps Institution of Oceanography • David Thistle, Florida State Univ. • Jill Trewhella, Los Alamos National Lab. • Kensal E. van Holde, Oregon State Univ. • Julio L. Vergara, Univ. of California, Los Angeles • Frederick S. vom Saal, Univ. of Missouri, Columbia • Bonnie Ann Wallace, Univ. of London • James H. Wandersee, Louisiana State Univ., Baton Rouge • Marlene Zuk, Univ. of California, Riverside

Chemistry

A. Paul Alivisatos, Univ. of California, Berkeley • Steven R. Angle, Univ. of California, Riverside • Paul A. Bartlett, Univ. of California, Berkeley • Jacqueline K. Barton, California Institute of Technology • Robert G. Bergman, Univ. of California, Berkeley • Joel Bernstein, Ben-Gurion Univ. • Emily Ann Carter, Univ. of California, Los Angeles • Mary Sue Coleman, Univ. of Iowa • Jean M. J. Fréchet, Univ. of California, Berkeley • Frederick D. Greene, Massachusetts Institute of Technology • Richard G. Haire, Oak Ridge National Lab. • Judith Herzfeld, Brandeis Univ. • Michael D. Hopkins, Univ. of Pittsburgh • Donald F. Hunt, Univ. of Virginia • Robert L. Jernigan, National Cancer Institute • Yoshito Kishi, Harvard Univ. • Thomas Kodadek, Univ. of Texas, Dallas • Thomas R. Krugh, Univ. of Rochester • C. Robert Matthews, Pennsylvania State Univ. • Kenneth M. Merz, Jr., Pennsylvania State Univ. • Stephen F. Nelsen, Univ. of Wisconsin, Madison • Kyriacos C. Nicolaou, Scripps Research Institute • Jack R. Norton, Columbia Univ. • Larry E. Overman, Univ. of California, Irvine • Kathlyn A. Parker, Brown Univ. • Stanley H. Pine, California State Univ., Los Angeles • Gustavo E. Scuseria, Rice Univ. • Jonathan L. Sessler, Univ. of Texas, Austin • Gilbert J. Sloan, Norquay Technology, Inc., Chester, PA • Terry R. Stouch, Bristol-Myers Squibb Pharmaceutical Research Institute, Princeton • Samuel I. Stupp, Northwestern Univ. • Douglas H. Turner, Univ. of Rochester • Gregory A. Voth, Univ. of Utah • David M. Walba, Univ. of Colorado, Boulder • Paul S. Weiss, Pennsylvania State Univ.

Dentistry

John Charles Keller, Univ. of Iowa • Michael Melnick, Univ. of Southern California

Education

Jean Beard, San Jose State Univ. • Julia V. Clark, National Science Foundation • Manuel Keepler, North Carolina Central Univ. • Carlo Parravano, Merck Institute for Science Education, Rahway, NJ • Sheila Tobias, Tucson, AZ

Engineering

Richard T. Baum, Chappaqua, NY • Gerardo Beni, Univ. of California, Riverside • Antony N. Beris, Univ. of Delaware • Liang-Shih Fan, Ohio State Univ., Columbus • David Finkleman, North American Aerospace Defense Command and U.S. Space Command, Peterson AFB, CO • Michael W. Golay, Massachusetts Institute of Technology • William A. Gross, Univ. of New Mexico • David L. Harrington, General Motors R&D Lab., Warren, MI • Charles H. Kruger, Stanford Univ. • Mohammad Jamshidi, Univ. of New Mexico • David A. Landgrebe, Purdue Univ. • Lawrence M. Lidsky, Massachusetts Institute of Technology • Hassan M. Nagib, Illinois Institute of Technology • Joseph M. Norbeck, Univ. of California, Riverside • Nicholas A. Peppas, Purdue Univ. • Sheri D. Sheppard, Stanford Univ. • Marwan A. Simaan, Univ. of Pittsburgh • Kenneth E. Torrance, Cornell Univ.

General Interest in Science and Engineering

Frederic J. Brenner, Grove City College, PA • Julie Ann Miller, *Science News*, Washington, DC • Howard S. Pitkow, Temple Univ. • Boyce Rensberger, Massachusetts Institute of Technology

Geology and Geography
David J. Bottjer, Univ. of Southern California • Susan L. Cutter, Univ. of South Carolina, Columbia • William R. Dickinson, Univ. of Arizona • Jeff Dozier, Univ. of California, Santa Barbara • Bilal U. Haq, National Science Foundation • Paul F. Hoffman, Harvard Univ. • Thomas D. O'Rourke, Cornell Univ. • David J. Stevenson, California Institute of Technology • Donald A. Swanson, U.S. Geological Survey, Hawaii National Park

History and Philosophy of Science
John S. Earman, Univ. of Pittsburgh • Daniel P. Jones, National Endowment for the Humanities • Noretta Koertge, Indiana Univ., Bloomington

Industrial Science and Technology
Thomas C. O'Brien, DuPont Co., Wilmington, DE

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