

AAAS DIVISIONS

The AAAS Divisions bring together scientists and nonscientific communities to discuss issues with immediate local impacts. The geographic divisions also serve as networks for scientists, through regional meetings on local issues, and by promoting the publications of scientists within each area. In 2013, AAAS Divisions looked at such pressing regional issues as water security in the West, threats to the fisheries and watersheds of the North, and the fight against tropical diseases in the Caribbean.

PACIFIC: SCIENCE AND WATER

Researchers at the annual meeting of the AAAS Pacific Division presented computer modeling studies to water resource managers in the arid West, where population growth and climate change are challenging the region's water supply.

"We are taking outputs from global climate models and hydrological models and bridging the gap between science and what the decision-maker community needs," said Sajjad Ahmad of the University of Nevada, Las Vegas.

Hundreds of scientists, students, professionals, and members of the public attended the conference, where a focus of discussion was finding an alternative source of water for greater Las Vegas, which currently gets its water from Lake Mead and the Colorado River. A pipeline that would supply groundwater from northern Nevada is being challenged in court, authorities said. A desalinization plant near the coast of California or Mexico could allow a "paper trade" that would exchange desalinated water for an additional share of Lake Mead's water would be cheaper, Ahmad reported, but it would use twice as much energy as the pipeline, and its carbon footprint would be 48% larger.

SOUTHWEST/ROCKY MOUNTAINS: ANOTHER LOOK AT WATER USE

At a one-day symposium held by the AAAS Southwest/Rocky Mountains (SWARM) Division in 2013, scientists and policy experts

also discussed water management in the western United States, and in other parts of the world. The pressing issues that came up included freshwater biodiversity, advancing hydrologic science and engineering, and the food-water-energy nexus.

The symposium included a tour of Arizona State University's Decision Theater WaterSim, a research facility that provides water managers with state-of-the-art visualization and simulation tools. WaterSim allows simulated management of a water supply under various conditions of drought and climate change.

Researcher Sajjad Ahmad, of the University of Nevada, Las Vegas, was one of the speakers at the annual meeting of the AAAS Pacific Division. Scientists and other residents of the region tackled the issue of meeting the West's growing water needs.





In Arizona State University's Decision Center for a Desert City, Director Dave White demonstrates WaterSim, a tool for exploring the impacts of climate change, drought, and land-use changes.

ARCTIC: ALASKA'S MARINE RESOURCES THREATENED

Meeting organizers at the AAAS Arctic Division annual meeting hoped that “interactions and discussions will increase the resilience and adaptability of Alaskan communities as they face multiple threats to northern people and the ecosystems they inhabit,” said Larry Duffy, executive director of the division and professor of chemistry and biochemistry at the University of Alaska, Fairbanks.

The meeting brought together researchers, policymakers, fishermen, students, and community members with an interest in Alaska's marine resources to discuss such topics as the impacts of climate change, development, and pollution on traditional fisheries and the watersheds that support them.

Researchers made presentations on the health benefits and risks associated with eating seafood, evidence of climate change on mercury levels in Kodiak sea otters, the monitoring and harvesting of certain fish populations, and sustainability in successful fishing communities in rural Alaska.

The meeting also included two workshops: one on communicating science and the other on community science, K-12 interactions, and teacher training.

CARIBBEAN: THE BATTLE AGAINST TROPICAL DISEASES

Experts from the front lines of tropical disease research and prevention convened at the 2013 AAAS Caribbean Division annual meeting to offer new insights into a significant feature of the region's past and its current public health challenges.

“Malaria and schistosomiasis, as well as dengue fever, are still threats in many countries in the Caribbean,” said Abel Baerga-Ortiz, division president and an assistant professor in the department of biochemistry at the Medical Sciences Campus of the University of Puerto Rico. “The meeting's program is intended to encourage awareness of the regional efforts that are being made by the Center for Disease control and others to better understand the biology of disease propagation and regional prevalence.”

Experts at the meeting shared information about the distribution of different serotypes of the dengue virus across Puerto Rico, as well as guidance on how to prevent dengue's spread. They also spoke about the origins and survival strategies of the malaria parasite in Peru and the effects of tropical fungi, including mushrooms, molds, and yeasts, on daily living.