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SCIENCE EDUCATION

Scholars Named in Program to Expand Research in Parks

Ramona Maraj has plenty of "war stories" from her master's fieldwork on songbirds of Vancouver Island. There was the time a curious young black bear brushed against her, and once, another bear took a nighttime breather by sitting on her tent while she slept. Ironically, now that she is conducting research on grizzly bears in Canada's Yukon Territory, bear encounters have been rare. "You try not to harass the bears while you're studying them," she says.

Maraj is one of eight Ph.D. students who have received scholarships from the Canon National Parks Science Scholars Program for the Americas, allowing the doctoral students to conduct innovative research on scientific problems critical to national parks. The scholarship program is a collaboration of Canon U.S.A., Inc., the National Park Service (NPS), and the American Association for the Advancement of Science (AAAS). Thanks to a commitment by Canon U.S.A., Inc., each of the 2002 awardees will receive $78,000.

As a Canon National Parks Science Scholar, Ramona Maraj is studying grizzly bears like this one in Canada's Yukon Territory.

This year, the program has become international in scope, including students and research in the United States, Canada, Mexico, Central and South America, and the Caribbean.

"AAAS, as an international, interdisciplinary science organization, is pleased to be a partner in the Canon National Parks Science Scholars Program for the Americas," says Alan I. Leshner, AAAS's chief executive officer. "It is important to incorporate science and technology into the management and preservation of national parks throughout the Americas. Investing in the next generation of researchers makes good sense for the long-term health of parks."

The 2002 recipients are studying topics that include elk migration in Canada, invasive plants and pollinators in Patagonia, stream flow in Yosemite National Park, and community interaction strategies at the U.S. Virgin Islands National Park. Since the program began, students have conducted research in more than 45 national parks and shared more than 55 scientific articles and presentations. The eligible disciplines expanded this year to include technology innovation in support of conservation, in addition to the more conventional disciplines of biological sciences, physical sciences, and social/cultural sciences.

"Throughout the hemisphere, it's clear that we need science for effective park management, and parks are extraordinary places for research in many scientific disciplines," notes Gary Machlis, NPS visiting senior scientist and coordinator of the scholarship program. "Canon U.S.A., Inc., is to be congratulated for the legacy that is being built with their generous support."

The 2002 Canon National Parks Science Scholars Program for the Americas awardees are studying topics from fish to trees in the north, south, east, and west. One of the 2002 recipients, a Mexican scientist from the National Autonomous University of Mexico (UNAM), will be studying endemic mammals in protected areas of Oaxaca in Mexico. Patricia Illoldi reports that the scholarship will allow her to spend 8 months in the field confirming predictions made by a computer model. She says that her goal is to ensure that existing and proposed protected areas in Oaxaca include habitat for rare endemic mammals.

Marc Stern's project will consider issues regarding park management, as he conducts social science research to explore what leads to success or failure when park officials involve local people and organizations in decision-making processes in the United States and Ecuador.

Stern notes that in addition to the financial support, an important benefit of the program is the networking opportunities it provides both with other awardees throughout the Americas and with National Park Service leaders.

"It's great to be able to talk to other folks who are interested in the same things you are," he says. — LAURA KENNEDY

AAAS

Grants for Human Rights, Intellectual Property

Recent grants totaling almost $2 million over the next 3 years will allow AAAS to dramatically expand its activities in two areas—intellectual property, and science and human rights.

The John D. and Catherine T. MacArthur Foundation and the Rockefeller Foundation recently announced that they would each provide a grant of $600,000 to further the work of the Association in examining intellectual property policies and their potential impact on scientific research and innovation. A second grant of $700,000 from the MacArthur Foundation will allow AAAS's Science and Human Rights Program to establish a technical team that will specialize in information management and statistical analysis for human rights projects.

"We have been looking for an appropriate balance between the interests of the public and its need for access to information, and the interests of those who produce and publish that scientific information," said Mark S. Frankel, director of AAAS's Scientific Freedom, Responsibility and Law Program and author of a recent AAAS report, "Seizing the Moment: Scientists' Authorship Rights in the Digital Age."

"These grants will allow us to expand our approach so that we can address the impacts of both copyright and patenting on access to and use of scientific information."

The new funds will also allow for an examination of the intersection between intellectual property and human rights, said Audrey Chapman, director of AAAS's Science and Human Rights Program.

"There is international recognition of the right to the benefits of science as a human right, and we'll be looking at this broad obligation of countries to provide access to scientific developments to all people," Chapman said.

The $700,000 MacArthur grant will build on the efforts of Patrick Ball, deputy director of the Science and Human Rights Program, who has designed information management systems and conducted quantitative analyses for large-scale human rights data projects in Africa, Asia, South America, and Eastern Europe. Ball's most recent work, *Killings and Refugee Flow in Kosovo March–June 1999*, was presented in testimony in the trial of Slobodan Milosevic at the International Criminal Tribunal for Former Yugoslavia.

"We can now hire technical experts and long-term consultants," Ball said. "The work had gotten much too big for me."

INTERNATIONAL

New Web Site Aims to Serve Europe's Young Researchers

Patrick Cramer, a structural biologist from Munich, has a dream for improving Europe's scientific enterprise. He calls for more "attractive independent research positions in Germany and other countries in Europe," and yearns for a day when European scientists would routinely come home to work after studying abroad.

Cramer's thoughts may seem common enough among Europe's young research scientists. What is new, however, is that there is now a Web site that voices the researchers' concerns, while providing step-by-step guidance for addressing them. Cramer's "Back to the Roots" article, about his decision to return to Germany from the United States, is one of dozens posted on *Science*'s Next Wave Europe (http://nextwave.sciencemag.org/europe), a collaboration between AAAS and *Science*, and the European Science Foundation (ESF).

"We are showing young people that if they are not happy with their research career, there are other opportunities open to them," says Kirstie Urquhart, editor of *Science*'s Next Wave Europe. "Although there is great diversity from one country to another, if the researchers can start to see that there are similarities, they can work together to bring about change by having this community on Next Wave."

In a region that is striving to become more competitive and to provide greater mobility and independence to its young researchers, the Web site provides opportunities for exchanging ideas and comments, in addition to relevant news articles and practical career information. The site was launched 2 weeks ago during the recent meeting of the European Commission's ambitious new 6th Framework Programme, a 4-year, €17-billion research initiative that includes, among its goals, "the development of world-class human resources in all regions of the [European] Community."

In seeking ways to fulfill this goal in particular, ESF staff became convinced that *Science*'s Next Wave, already operating in countries around the world, could also play an important role in Europe. The ESF's support allows access to the site for any resident of the Foundation's 27 member countries, listed on the following URL: www.sciencemag.org/subscriptions/inst-nw-esf.dtl.

On the day that *Science*'s Next Wave Europe was formally launched, visitors to the site could read about a group of young Italian researchers who are planning to publish *Brains in the Cage*, a book about their poor working conditions. In a second article, a German chemist recounted how she had made the leap from chemist to consultant for a management consulting firm. A third article asked, "Who's Directing Science?" and warned, "You may think you are an independent scientist, but the people who put up the money may have their own agenda." A fourth article offered news on R&D funding that might lead to jobs.

"Next Wave Europe has to be seen as a contribution to improving the situation for our next generation of scientists," said Enric Banda, ESF secretary general. "The current climate for young scientists in Europe is improving. However, we are far from an ideal situation. While most or all of our brains receive support, we still lack career paths, we lack attractiveness for both our own researchers and for those from other parts of the world, and our industry is still not investing enough in R&D, and therefore fails to employ enough of them or to integrate them while they are in academia."

AAAS

Board Opposes Teaching Intelligent Design Theory in Science Class

The AAAS Board of Directors has passed a resolution urging policy-makers, scientists, and other members of the public to oppose teaching "intelligent design theory" (ID theory) in the nation's science classrooms, noting that the concept has so far not been supported by credible scientific evidence.

AAAS calls upon its members to assist those engaged in overseeing science education policy to understand the nature of science, the content of contemporary evolutionary theory, and the inappropriateness of intelligent design theory as subject matter for science education. Further, affiliated societies are asked to join the Association in endorsing the AAAS Board resolution, and communicating the position to policy-makers.

Supporters of ID theory argue that only the existence of an extra-natural intelligent agent can account for the diversity of life forms on Earth and the complexity of DNA. "The ID movement [has] an interesting philosophical or theological concept, and some people have strong feelings about it," said Peter H. Raven, chairman of the AAAS Board of Directors and Director of the Missouri Botanical Garden. "Unfortunately, it's being put forth as a scientifically based alternative to the theory of biological evolution. Intelligent design theory has so far not been supported by peer-reviewed, published evidence."

In a recent opinion article published in Ohio's *Akron Beacon Journal* (6 November 2002), AAAS CEO Alan I. Leshner noted that the AAAS board, and the scientific community it represents, support and encourage a broad range of viewpoints. He added, however, that the organization's board found that intelligent design theory—if presented within science courses as factually based—is likely to confuse American schoolchildren and to undermine the integrity of U.S. science education. "The quality of U.S. science education and our international competitiveness are at stake here," Leshner said. "We live in an era when science and technology are central to every issue facing our society—individual and national security, health care, economic prosperity, employment opportunities. Children who lack an appropriate grounding in science and mathematics, and who can't discriminate what is and isn't evidence, are doomed to lag behind their better-educated counterparts. America's science classrooms are certainly no place to mix church and state."