

Building a Diverse Biological Community

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Building a Diverse Biological Community

ABRAHAM PARKER

Is America's scientific community

an accurate representation of America? Most scientists say no. There are several underrepresented minority groups in the sciences—notably African Americans, Hispanics, Native Americans, Pacific Islanders, and Alaska Natives. This lack of diversity has been a particular cause for concern among ecologists and environmental scientists, because they are dedicated to preserving a sustainable world. And without a diverse community of scientists who make valuable contributions to the field and serve as mentors and role models for future generations of scientists, how can science truly address global issues? Therefore, in collaboration with funding agencies, professional societies, and minority-serving institutions, a number of dedicated scientists are actively reaching out to minority students and scholars with the goal of diversifying their community.

Nearly a decade ago, the Ecological Society of America (ESA) decided to tackle the problem head-on after a survey revealed that only 0.3 percent of its members were African American. Thus in 1996, ESA partnered with the Institute of Ecosystem Studies and the United Negro College Fund to create a program called Strategies for Ecology Education, Development, and Sustainability (SEEDS). The original focus of SEEDS was faculty and curriculum development at historically black colleges and universities, but in 2002 the focus shifted to serving the needs of individual students. Although the program has evolved, it still maintains its original goal: to promote opportunities in ecology for underrepresented minority students.

SEEDS's new student-focused approach quickly made it popular among minority undergraduates in ecology. According to program coordinator Melissa Armstrong, "SEEDS works because it exposes students to ecology in

Links to diversity programs in the sciences.
Visit these sites for more information on these and other diversity programs in the sciences:
AIBS Diversity Programs and Resources: www.aibs.org/diversity/
ASLO Minorities in the Aquatic Sciences Program: www.aslo.org/mas.html
Ecological Society of America, Strategies for Ecology Education, Development, and Sustainability: www.esa.org/seeds

meaningful and positive ways." This is accomplished through year-long undergraduate research fellowships, field trips to biological field stations, participation in ESA's annual meeting, and student chapters at colleges and universities, many of which are at minority-serving institutions. In each of these settings, program staff and volunteer mentors work closely with students, providing a highly structured and individualized experience to ensure that students get the most out of their participation.

The American Society for Limnology and Oceanography (ASLO) is another leader in efforts to diversify the scientific community. Benjamin Cuker, a professor of marine biology at Hampton University, manages the ASLO Minorities Program, which he helped launch 16 years ago. "I was working at Shaw University, a historically black college, and had grown up in a diverse neighborhood in Detroit, and made the point that the ASLO community did not look much like the world I lived in," explains Cuker. The program brings outstanding undergraduate and graduate students to the ASLO annual meetings, where they can present research, visit local aquatic habitats and ecosystems, participate in workshops on academic and professional development, and interact with mentors and other professionals in their field.

Such interactions and shared experiences between the students and faculty help foster a supportive sense of community. "When we bring students to-

gether that share an interest in ecology, their interests are validated and supported," explains Armstrong. Cuker adds, "They develop peer relationships with other minority (and majority) students who share common interests. They also link with mentors who provide advice and opportunities. This is the foundation for the community of scholarship that encourages success."

These efforts by ESA and ASLO have increased diversity within the scientific community, and their success has motivated other organizations to reach out to underrepresented minorities. Certain key characteristics demonstrated by these programs, which are likely to help similar initiatives succeed, include direct connections to faculty at minority-serving institutions, a focus on students early in their undergraduate careers, attention to professional and academic development, and a commitment from board members and chief executives of scientific societies and institutions. The role that professional societies play does make a difference—they have provided these programs with a home and infrastructure, as well as an avenue for students to connect with mentors, fellowships, and employment opportunities. By reaching out to a diverse body of future scientists and scholars, they have taken the first step toward creating a sustainable scientific community.

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