Dr. Elena Sparrow

As leader of IARC’s Education and Outreach programs, Elena Sparrow directs broad efforts to convene and communicate new and innovative science research and teaching methods. Sparrow has led a long and noteworthy career as a soil microbiologist, in addition to her key role in the development and growth of the Global Learning and Observations to Benefit the Environment (GLOBE) program and science education in Alaska.

IARC’s Publications team recently interviewed Dr. Sparrow regarding her background and current work at IARC.

Have you always been interested in studying and teaching about the earth and its science?

Growing up under modest means in the Philippines, I wanted to help people as a medical doctor, but the schooling would have required me to move too far from home. Instead, since our town was also home to an agricultural college, I developed an interest in food and farming as a way to help others and improve living conditions.

While an undergraduate, I formed a strong student-teacher relationship with my mentor around the study of soil and our roles as women scientists. From there, I continued to specialize in soil microbiology for my graduate degrees in the US.

What interests do you have outside of your research and outreach work?

I love music and dancing, and playing the guitar and piano. I also enjoy cooking at home, as well as hiking outside, and I very much appreciate that hiking in Alaska doesn’t carry the same risk of contact with snakes as I had when growing up.

How did these circumstances lead you to Alaska and IARC?

After graduate school, I began to work with government agencies, including the EPA, the Cold Regions Research and Engineering Laboratory (CRREL), and the US Department of Agriculture (USDA). Since this was during the Pipeline period in Alaska, many groups with environmental concerns had a stake in designing and conducting scientific studies here. It was during this time that I first moved to Alaska to conduct research, crisis management simulations, and workshop studies. It was through the early climate studies and activities I conducted for the USDA that I was able to develop a reputation as a resource for regional climate and climate change education.

What might interest people about your current work?

Much of my recent work represents a continuation of the ties and affiliations I developed early in my career, to funding agencies such as NSF and educational programs like GLOBE. Over time, through GLOBE efforts, we have been able to engage students in soils, land cover/biology, phenology, atmosphere, cryosphere, and hydrology research in an era of climate change.

Further, we have done widespread recent work through our workshop programs (in Alaska, and around the world) to help and interact with science teachers, to better integrate science education across curricula and diverse learning contexts. We also work to engage young scientists and learners at K–12 levels, as we feel strongly that early, hands-on participation in the scientific process is key to community environmental awareness and resources management. Consistent with IARC’s mission, we develop ways to emphasize the Earth as a system of interacting components and cycles, paying special attention to the participation and involvement of humans.

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