

Exploring the World's Habitats

NSTA member Dan Bisaccio dreamed of having his high school students conduct “long-term, primary research” and collaborate with teachers and students worldwide. With initial help from a Toyota TAPESTRY Grant, he made his dream come true.

A partnership between NSTA and Toyota Motor Sales, U.S.A., Inc., the Toyota TAPESTRY Grants for Science Teachers program offers grants to K–12 science teachers for innovative projects that enhance science education in their school or school district. In 1996, Bisaccio, who taught conservation biology at Souhegan High School (SHS) in Amherst, New Hampshire, received a \$10,000 TAPESTRY grant. He used it to create HabitatNet: A Global Biodiversity Monitoring Project. His goals were “to establish a permanent biodiversity monitoring project in a 100-acre, mixed hardwood forest plot owned by the town conser-

vation commission and to establish a global telecommunications link (using e-mail) with other high school classes interested in developing biodiversity monitoring plots.”

The grant funded the purchase of field equipment and three weeks of training for Bisaccio through the Smithsonian Institution’s Monitoring and Assessment of Biodiversity (SIMAB) program. Using SIMAB’s protocols, he and his students created a permanent biodiversity plot near SHS. He also became an adjunct biodiversity researcher for the program (see <http://nationalzoo.si.edu/conservationandsience/mab> for more details about SIMAB).

Bisaccio developed the SHS/HabitatNet website at www.sprise.com/shs/habitatnet.aspx, where teachers can read about his work and access resources for replicating his program with their students. Now director of

science education at Brown University, he continues to contribute to the website and work with SHS students.

Branching Out

Bisaccio expanded HabitatNet by developing field tropical ecology courses. He has taken hundreds of high school and university students to Costa Rica, Belize, Saba, Jamaica, and Mexico. He also has established permanent biological diversity monitoring projects in Mexico, Tahiti, and Jamaica involving student researchers.

In Tahiti, college students survey “invasive tree species at national parks,” he explains. Bisaccio brings high school students to the tiny (“about five square miles”) country of Saba in the Dutch West Indies to “document and gather baseline data on the recovery and successional stages of what used to be a proud mahogany forest” located atop Mount Scenery. Saba students also

participate in the research.

Each summer, a small group of interested teachers accompanies Bisaccio to the El Eden Ecological Reserve in Quintana Roo, Mexico, to study tropical ecology and conduct biodiversity research. He estimates nearly 50 teachers have received this training and incorporated it into their curricula.

Funding for these endeavors has come from his guest lecture fees. In addition, local businesses, the SHS administrative team, the school board, and “anonymous donors” support student participation.

A Global Summit

In January 2005, HabitatNet/SHS joined with the Smithsonian Institution, Amigos de Sian Ka’an UNESCO Bio-Reserve, and El Eden Ecological Reserve to host the First International Earth Summit for Youth on Global Biodiversity. Eighty students and teachers



DANIEL BISACCIO

Every summer, HabitatNet brings teachers to the El Eden Ecological Reserve in Quintana Roo, Mexico, to study tropical ecology and conduct biodiversity research.

cio faced such challenges as obtaining visas for all of the participants, he says “it was worth it” because the event resulted in a student-produced document, “Youth Accord for Biodiversity.” It was submitted to the United Nations (UN) for Earth Day and to government agencies from all 13 nations.

The UN’s Environmental Program has invited Bisaccio and his students to present their research at Conventions on Biological Diversity, held in Canada in 2007 and 2009 and in Germany in 2008.

Through its UN connections, HabitatNet recently partnered with some Canadian educators from www.biodiversitymatters.org, the homepage of the Second International Youth Symposium on Biodiversity, taking place July 5–9 in Ottawa, Canada. The symposium will allow students to experience Canadian biodiversity with a full-scale Bio-Blitz (a biological survey with local scientists and naturalists). In addition, says Bisaccio, students will develop “action plans” to implement “Youth Accord for Biodiversity” and submit them to the UN.

Several of his Brown University Master of Arts in Science Teaching candidates will attend the symposium with Bisaccio. Because they have not yet begun their preservice teaching, he believes the experience will provide a preview of what it is like to work with young students. ●

from 13 countries participated in the event, held in Mexico. Though Bisac-

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