

HI-MEET: Connecting the environment with the classroom

12/16/2015

Teachers gathered at Paniau in Puako for a field workshop, provided by The Kohala Center's HI-MEET (Hawaii Meaningful Environmental Education for Teachers) program on Dec. 5. They know where authentic learning takes place and it's not necessarily in the classroom. Observation, questions, data collection, analysis; these are the science activities that this group of middle and high school teachers will soon be sharing with their students.

The HI-Meet year-long program aims to help grades six through 12 teachers become skilled in leading their students through the design and implementation of field-based environmental research and service learning that is aligned with DOE standards.



Teachers attended the field workshop in Puako to learn new science activities to share with their middle and high school students in future classes. (PHOTO COURTESY OF THE KOHALA CENTER)

At this morning session, The Nature Conservancy staffers Rebecca Most, Chris Peters and Cecile Walsh were on hand to share some of the field work they do in communities.

"A community will have a question about water quality or see a change in the environment and we will collect data and try to find answers for them," says Most.

Helping students and teachers find answers in the field to their own questions is the kind of learning that the HI-MEET program hopes to promote. This will ultimately provide students with rich learning experiences grounded in real-world environmental problems such as climate change, rising sea levels and coral bleaching, as well as monitoring fish populations.

First up on the agenda was a technique for identifying and counting marine life. Most recommends establishing a basic field site area, which will give student researchers an opportunity to gather information under various conditions and attain deep knowledge of that place.

A transect — a very long measuring tape — is laid across the tide pool, and marine life two and a half meters on either side of it is recorded. After a dry run on land to practice recording fish species and numbers the group heads out to the tide pools, and as if to emphasize the importance of fishery monitoring, two throw net fisherman perch at the edge of the reef.

Armed with clipboards and data sheets, participants go to work observing and recording a swimming, crawling treasure trove of marine delights.

Dipping into the pond, Walsh displays two different types of cowrie and points out that the undulating fringes at the base of the cowrie's shell are the brachia of the creature's soft body, which are ingesting nutrients and extracting shell building calcium carbonate: an elegant marine construction project.

Observing and collecting the data is just the beginning. When students return to the classroom they will engage in critical thinking, data analysis and puzzling out anomalies, in other words, thinking like a scientist.

Participants head back to shore for a tutorial with C-Water kits, developed by the South Kohala Coastal Partnership, that contain mobile instruments for recording water quality available for use by students. The ysi hand-held parameter, just one of the instruments in the kit, monitors and records temperature, salinity, dissolved oxygen and pH, among other things.

Ideas and curricular connections flew among the enthusiastic group members, who are sure to bring their excitement back to their students, creating a win for learners and our island home.