

Connections for sustainability

By Jan Wizinowich, Special to West Hawaii Today

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As with the rest of the world, Hawaii is beginning to see the effects of growing environmental problems such as climate change, deforestation, urban growth and low water quality. Just as our canoe was built with many hands, Hawaii is going to need the efforts and insights of citizen scientists to address environmental issues.

Several teams of students from West Hawaii schools set out to do just that. Throughout the school year, students explored environmental problems through the Hawaii Island Meaningful Environmental Education for Teachers (HI-MEET) program, culminating in the symposium held on May 5 at Keck Observatory in Waimea.

The real world science scene was set with the keynote address, delivered by Jamison Gove, a research oceanographer with the National Oceanic and Atmospheric Administration (NOAA), which focused on the impacts of climate change in the Hawaiian Islands. The presentation provided the big picture of climate change, both globally and locally, generating informed student questions.

Teams of students then shared their research and projects, which ranged from restoration to information and data gathering, engaging students in real-world science procedures.

Seeing the effects of flooding, the Kealahou High School students took on Kona storm water management. Working with two graduate students in landscape architecture from the University of Washington, they went out into the field, visiting Palamanui campus – a model site for low impact design. The team also looked at problem areas on their own campus to understand the causes of flooding and runoff and studied ways to prevent it. The team then devised a management plan that included planting out their campus with food trees.

Kanu o ka Aina Middle School students shared the lessons gained from their Honokaia Restoration Project, where they have planted hundreds of native trees and plants. Kanu high schoolers created a public service project by selecting rat lungworm disease as their topic and did a survey of garden snails and a study of the parasitic worm they carry. In the presentation they offered suggestions for preventative measures and snail eradication.

Waimea Middle School students researched and collected data looking for evidence of climate change, as well as creating an oral history video of interviews with long-time residents about changes they have observed. West Hawaii Explorations Academy did a comparative study of sea urchins in the Old Airport Marine Life Conservation District and Honokohau Harbor.



• Waimea Middle School students Kahea Etherton, Zak Murakani-Mattos, Dillon DuPont, Chandler Horn and Alexia Palafox shared their presentation on global warming at the HI-MEET Symposium on May 5 at Keck Observatory. (PHOTO COURTESY OF LIAM KERNELL)

Two groups of Parker High School students conducted studies in the Koaia Tree Sanctuary on lichen growth and the effects of fountain grass on the native aweoweo.

Funded by the NOAA Bay Watershed Education and Training (B-WET) program, HI-Meet is a year-long, three credit course that supports teachers in creating and implementing field based environmental science curriculum through weekend workshops and ongoing classroom mentoring and support.

Teachers and students become citizen scientists by learning to think like scientists, which is the primary aim of the HI-Meet program. Teachers were introduced to environmental science field work and passed those experiences on to their students, integrating it into the classroom core curriculum.

Scientists bring the real world into the classroom, which is what happened throughout this year. To gather data on climate change, Waimea Middle School students engaged in fish, coral and tide pool surveys at Kahaluu. Along with field trips, students were treated to presentations by working scientists, such as John Kahiapo from the DLNR aquatics division and Palika Bertlemann from the U.H. Seagrant program, who spoke with West Hawaii Explorations Academy students about fisheries management.

After the presentations, there was a think tank as students reflected together about their experiences. “Have patience and take good data” and “Research more about what you’re going to do before you do it” were just two lessons learned. Ideas for connections and collaborations were flying. “I liked finding out what’s happening in other parts of the island,” was one comment that everyone agreed on. Ways to stay connected by creating a blog site and continuing to have symposia were other suggestions from students.



Kealakehe High School students Deslynn Asuncion, Justin Reyes, Josh Johnston, AJ Saeldonea and Jarred Saribay focused on Kona storm water management in their studies and devised a management plan presented at the event.

● (PHOTO COURTESY OF LIAM KERNEL)

“This symposium went beyond the traditional ‘science fair project’ by giving students real-world experience presenting field science research projects in a professional-style scientific conference setting,” said Ilene Grossman, environmental education coordinator at The Kohala Center. “Students had the opportunity to connect with mauka and makai environments here at home, and to think critically about the future of our island planet. We are hopeful that this generation will devise innovative responses to the challenges our ecosystems face.”