CITIZEN SCIENCE PROJECT BRINGS TELESCOPES TO RURAL COMMUNITIES

One Cal Poly physics professor is bringing real-world astronomy research to underserved communities in five states. John Keller and his research partner, Marc Buie from the Southwest Research Institute in Boulder, Colo., have engaged 56 communities in a citizen scientist project that stretches 1,200 miles from the Canadian border to Mexico.

Each community received a telescope, camera and training as part of the research project. “The town of Hawthorne, Nev., and the Mineral County School District now have a telescope to share for educational and community use, the first time ever,” said community member Kathy Trujillo.

Hawthorne is just one of the communities in the Research and Education Collaborative Occultation Network (RECON). These teachers, students and amateur astronomers are helping Keller and Buie measure the size of Kuiper Belt Objects (KBOs). These large, frozen bodies that orbit the sun in the outer region of the solar system hold important clues about the origins of the solar system.

Both Buie and Keller see the benefits of RECON stretching far beyond what scientists will learn about KBOs. “These rural cities are highly underserved communities,” Keller said. “This engages a whole network of high school students and citizen scientists in the excitement of scientific discovery.”

The network will conduct six coordinated observation campaigns of KBOs each year through 2019. “It’s so exciting that our students will grow and learn with the RECON project throughout their high school careers,” said Trujillo.

Results from the project have already been published in The Astronomical Journal.

Pictured: A laser pointer shoots toward the sky during the Lassen Volcanic National Park’s Dark Sky Festival, which some RECON teams attended. Photo credit: Manzanita Lake Night Sky Viewing by Alison Taggart-Brone; used under Creative Commons License 2.0

TEACHERS ARE BETTER TOGETHER

In July, teachers across California came together for a free day of learning at Cal Poly and 39 other locations throughout the state. The second annual Better Together: California Teachers Summit gathered teachers, teacher candidates, school administrators, and other educators to share best practices in implementing new standards in language arts, math and science.

"This event draws on the strength of teachers being both experts and learners."

More than 120 educators gathered at Cal Poly. Much of the information was shared by teachers for teachers.

“When teachers come together and learn from each other, everyone benefits,” said Cal Poly education Professor Tanya Flushman, who organized the local gathering. “This event draws on the strength of teachers being both experts and learners.”

Teachers gave TED-style talks and also had small group discussions on topics such as project-based learning and using technology in the classroom.

“No one has more experience with what works in the classroom than teachers. They are the experts on the California Standards,” Flushman said. “The networks teachers will build through this summit will have a significant impact on students statewide.”

Next year’s Better Together Summit is set for July 28, 2017.

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