

## **UNM-Taos cultivates climate-change scientists**

**By Cody Hooks**

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Daisy Eirich thinks this might sound outrageous, but over the summer, she's loved waking up at 4 a.m., putting on chest-high waders and walking through dense and murky mud, making bird calls until something showed up.

She was working with the Forest Service doing all manner of wildlife biology. It's her passion, and now, with the help of Northern New Mexico-Climate Change Corps, this summer is the first taste of what she hopes will also be a long career.

Northern New Mexico-Climate Change Corps (NNM-CCC) is a program of the University of New Mexico-Taos and New Mexico Highlands University in Las Vegas with the purpose of getting more students from primarily Hispanic-serving colleges into jobs with natural resource management. "We're in the right place for this," said Dr. Brooke Zanetell, the professor behind getting NNM-CCC off the ground. "People who grow up around here have such a strong connection to nature. We're helping them go from just loving the outside to launching a career where they're serving nature."

Only in its first year, the 10 students in NNM-CCC are already showing what's possible with a little guidance, sound advice and well-tailored opportunities with federal agencies.

Some students took up summer internships in fields that not only get to the heart of their passion, but directly relate to research with climate change.

Eirich called for spotted owls (among other species), an animal yet to be seen in Taos but whose habitat range could change with rising global temperatures and more-irregular rain patterns.

Miguel Vigil spent 10 weeks in Los Alamos, pumping hot air into cages in the pi-on-juniper forests near the Pajarito Plateau, researching the before-unstudied process of heat-related tree death.

Another student caught snakes all summer. Another worked with bison. Still another researched the ecology of arroyos and their changing biotic communities.

"This is the world we live in. And they want to know what the science is because that's going to be a big part of their job," Zanetell said.

“They’re not just taking classes, reading books and taking tests. They’re out there working with scientists, using the vocabulary and picking up on that culture. They’re in the early stages of becoming scientists,” she said.

## **Direction**

But these summer internships and jobs followed a full year of hard work, lots of tutoring, and plenty of advice on what classes to take and, simply, how to make dreams a reality.

If everyone sticks with it, NNM-CCC can take students from intro biology classes to masters-level thesis work and into a job.

The program funds students — \$2,000 a semester — to get an associate degree of pre-science for two years of work at UNM-Taos before continuing on for another two years at Highlands, where the forestry program is among the top in the nation.

That partnership between the two colleges — one developed specifically for NNM-CCC — makes it very clear for students what courses they need to take so that, unlike other students without such careful guiding, they don’t piddle away their precious credit hours on classes that don’t count.

Not only did the grant enable the two colleges to coordinate to produce more foresters and researchers, but also allowed for collaboration with federal agencies, particularly the forest service.

“The [forest] supervisors were a really big part of the success of our program,” Zanetell said, detailing how they were the ones to look at each student’s interests and find a summer opportunity to match.

All that support comes on the heels of a \$1 million grant from the U.S. Department of Agriculture, a grant Zanetell and others have worked for years to actually get. “It’s a pretty big deal,” she said, noting that NNM-CCC is one of only six programs in the country under this grant, and the only program to focus specifically on climate change.

## **Support**

Zanetell said part of the success of the program isn’t just the help from scientists and advisors, but the help and camaraderie among the students.

They took many of the same classes, attended the same before- class tutoring, and learned from each others’ mistakes.

“They really bonded together to be successful,” Zanetell said.

Eirich is 19 and the youngest person in the program, with several of the other students in their 30s and 40s, taking on a second career after losing a job or starting a family.

She is also the only female out of the cadre of emerging scientist.

“Yes, I’m the only girl. But that’s why I love the science field, because yes, I can do that same experiment as you, and yes, I can also carry that 20-pound backpack up the hill right there with you,” she said. “We’re all extremely close,” Eirich said. “You can always count on the guys.”

Zanetell said that group support and tangible payoffs of the program have boosted all the students confidence, motivation and direction. “They knew they had to be focused to make it to the next step,” she said.

## **Payoffs**

The NNM-CCC is certainly a trove of opportunities, but it comes with its own costs, only some of which are financial.

Zanetell said several of her students took summer jobs or internships — necessary steps toward a career — at the cost of big money that comes with spending the summer fighting wildfires, for example. “There’s a lot of family support going into their success,” she said.

But the payoffs are already showing.

Eirich said when she started at UNM-Taos, she “didn’t know what I was going to do. I didn’t have any clear options.” But NNM-CCC “put me on this beautiful path in what I love,” she said.

One student has really scored a job with the forest service in his hometown of Questa. And two others are part of the Pathways program with the forest service — once they complete their studies, a full-time job will be waiting for them.

And participation in NNMCCC makes the students edible for a host of other programs and initiatives aimed at gleaming successful scientists out of Northern New Mexico.

Going into the second year, Zanetell called the program “an incredible success story for Taos.”

Even though the grant is only good for four years (they can reapply), the connections are made the coursework trajectories laid out. That means NNM-CCC will be able to serve a lot more students than just those who get the financial support.

Student who are interested in NNM-CCC should contact Dr. Brooke Zanetell at [zanetell@unm.edu](mailto:zanetell@unm.edu). Applications for the fall must be received by Aug. 5.

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Photo Courtesy Dr. Brooke Zanetell

Students in a UNM-Taos biology class and the Northern New Mexico-Climate Change Corps assist with a fish population survey on the Rio Chiquito. Pictured, from left, David Atencio, Adonis Romero, Daisy Eirich, Kyle Willis, Manuel Torres, Thomas Fernandez, Matthew Martinez (measuring fish), and Michael Gatlin and Jennifer Gatlin, who are wildlife biologists with the Carson National Forest.