



CCC clubs continue during pandemic



CCC Biology faculty Melinda McKinney, left, listens with members and friends of the Students Advancing STEM Club as Forestdale Farms' Rylan Morton-Starnner explains how the round-tailed chub is being raised while helping feed plants.

FLAGSTAFF, Ariz. - What do the round-tailed chub and Walnut Canyon have in common?

They were both featured during recent field trips by student clubs at Coconino Community College.

The CCC Students Advancing STEM (Science, Technology, Engineering and Mathematics) Club and the CCC Anthropology Club, properly socially distanced and with face coverings, met to celebrate the comradery of shared experience and to gather a little knowledge at the same time.

"I really enjoy connecting with people in the club," said Anthropology Club President Catherine Hill. "Our love of anthropology brought us together."

The field trip, said Lisa Duskocil, faculty advisor for the Anthropology Club, was to visit the cliff dwellings of the Ancestral Puebloan Sinagua peoples, who lived in the area from around 600 BP to about 1400.

"We discussed the Ancestral Pueblos while we sat in their open rooms, underneath the smoke stains of the original inhabitants," Duskocil said. "Just as the many original families here once did, we laughed and strengthened our bonds with each other, and to the preservation of cultural identity and knowledge for future generations."

Hill, who is at CCC to get an associate degree in General Studies before she moves onto a four-year college to study International Relations, said she appreciates the ideology of tolerance she experiences in her anthropology classes.

"I like that it covers all different kinds of people of all walks of life," Hill said. "I really love that it makes it safe for human differences."

Hill's ultimate goal is to work at a U.S. Embassy abroad as a diplomat.

A week later, the Students Advancing STEM Club met at Forestdale Farm to get familiar with the topics of aquaponics and sustainability.

"We're trying to do a project with aquaponics," said Heidi Altif, president of the club, adding that the ultimate goal is to create a curriculum for area K-12 schools.

Melinda McKinney, faculty advisor for the Students Advancing STEM Club, said, "As with any science research project, we wanted to learn from the experience of experts in the field to develop a successful experimental design.

Forestdale Farms has partnered with the U.S. Geological Survey by using aquaponics while simultaneously working to conserve the round-tailed chub.

Rylan Morton-Starner, leader of the project, explained to the students that the chubs, in containers surrounding the gardens of vegetables, were helping with the growth of the plants with nutrients from their waste in the water – in essence, growing plants while raising chubs to be released back into the wild.

Altif, who is a CCC2NAU student who wants to obtain a bachelor's degree in Environmental Science with an emphasis in biology, said their project will be of a much smaller scope than the example at Forestdale Farms.

"It was definitely very informative, but we're not going to be so complicated," Altif said.

McKinney said that the students are learning to link and apply concepts of nutrient cycling, water-quality chemical analysis, food webs and sustainable farming to develop the curriculum for students.

The goal is to participate in STEM City's "Full STEAM ahead" project.

"The students in our club will meet with one or more K-12 teachers and develop a curriculum that meets their learning objectives," McKinney said. "At the same time, we hope to Zoom into the virtual classroom and establish personal relationships that will inspire the next generation of STEM professionals in our community."

For more information about CCC's student clubs and organizations,
visit <https://www.coconino.edu/student-clubs>.