

## Press Release

### **Mapping Ancestral Connections: Angoon Youth Honored Nationally for Culturally Modified Tree Research**

**Angoon, Alaska — October 2025**

Three Angoon High School students recently returned home from an extraordinary journey that began thousands of miles across the Pacific, at the Kōlea Institute, hosted by Hawai'i Community College, Pālamanui. Their path reflects the migratory spirit of the Kōlea bird itself, moving between Alaska and Hawai'i, connecting ecosystems, stories, and generations.

Last spring, Chatham School District students Cody Pitka, Angel Jack, Collins Mendenhall, and Johnny Hunter, worked alongside Dr. Sanjay Pyare of the University of Alaska Southeast (UAS), Seth Bader of See Stories, and community partners to explore geocultural science, a term coined by Dr. Pyare describes learning that unites community, ecology, and technology.



**Image 1: High school and community college students collaborate for local surveys through the Kōlea Institute. Photo Credit - Kate Cruz**

At the Kōlea Institute, students learned from Dr. Ryan Perroy of the University of Hawai'i at Hilo and Paul Agamata of Hawai'i Community College, joining adult learners to study geospatial technologies such as drone mapping, GIS, multispectral DGPS surveying, LiDAR, and ground-based LiDAR. These tools were introduced through the lens of ecosystem management of culturally significant plants, emphasizing care, observation, and interconnection.

Highlights of the Institute included a geocultural landscape history presentation, remote sensing and Ka'akepa field surveys, and community partnerships with Pōhaku Pelemaka. A Hawaiian ceremony organized by Orlo Steele and the Hawaiian student staff at HCC grounded the experience in aloha 'āina and reciprocity. To conclude the field institute, each student selected a cultural or natural artifact to document, practicing new skills in 3D rendering, digital modeling, and presenting within a higher education environment.

Three UAS undergraduate mentors, Riley Larson, Samantha Zelley, and Alexandra Gorbecheva, enrolled in UAS ENVS 493, joined the Institute to provide hands-on mentorship and create a postsecondary bridge for the Angoon students. Alexandra, a recent UAS Environmental Science graduate connected to Dr. Sanjay Pyare, later supported the group in developing their academic poster and scientific communication for their regional presentation alongside Hilda Mendenhall of Chatham School District.

Upon their return to Angoon, the students shared their learning with peers enrolled in ENVS 193, a dual-credit course, extending the impact of the project across their school and community. With support from Kootznoowoo, Inc. and the U.S. Forest Service, the students applied their new skills to capture 3D renderings of culturally modified trees (CMTs) identified for clearing during the Angoon Hydroelectric Project. Their work ensures that, while renewable energy brings resources to the community, the living connections to ancestral knowledge remain preserved.

Working closely with an externship with See Stories, students produced a [short film](#) and digital story maps soon to be featured at the new Angoon Community Center.

Their work, *The Tree, the Map, and the Flight Home*, culminated in a national presentation at the American Indian Science and Engineering Society (AISES) Conference on October 2. The students presented both a panel session and academic poster, with travel support from Sealaska, and received Outstanding Achievement Recognition in the High School Science Research Competition for their Culturally Modified Tree (CMT) project, which connected Tlingit history with emerging technologies including drone navigation, story mapping, surveying, and 3D rendering.



**Image 2: Angoon students Cody Pitka, Collins Mendenhall, and Angel Jack receive their Outstanding Achievement Recognition at the National AISES Conference, alongside their mentors Seth Bader of See Stories and Hilda Mendenhall of Chatham School District. Photo Credit - See Stories**

These efforts have laid the foundation for continued collaboration across the Pacific, with plans for additional spring courses, future iterations of the Kōlea Institute, and a growing Community of Practice supported by the USDA-NIFA project, *Developing an educational pathway in geocultural science for underserved coastal communities across the Pacific, 2024–2027*, (Award No. 2024-38470-43375). This initiative, led by Dr. Sanjay Pyare in collaboration with Kate Cruz and regional partners, has underwritten and interconnected many aspects of this multi-year effort, from mentorship and coursework to cross-Pacific exchange and community-based research.

*“Being able to share the stories of their ancestors, of their culture, in a way that lives on in this new wave of technology is inspiring to see. I think they laid the groundwork for a lot of future projects in a similar area to share the story, share the legacy of all the elders before.” Audience Feedback, AISES*

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