During the Fall 2020 semester, seven teachers from Campbell and Kapolei High Schools on O'ahu participated in Kupu's Fall 2020 Natural Resources Professional Development (NR PD) Program. The aim of the program was to utilize a work-based learning approach to enhance teachers' knowledge of different natural resource careers and topics, with each educator's journey (~35 hours of programming) individually curated to expand on their interests and help fill their knowledge gaps.

**Program Goals**

1. **Expose teachers to different careers in natural resources so they are more informed and prepared to educate and excite their students about the range of natural resource careers that exist in Hawai‘i.**

2. **Build connections between teachers and community partners to support future learning (guest speakers, field trips, student internships, etc.).**

3. **Increase teacher knowledge of natural resource topics and issues that can be integrated into their classroom curricula.**

4. **Develop lesson plans that increases student knowledge of natural resource careers.**

**Experiential Learning Requirements**

- View 4 presentations or webinars by natural resource professionals
- Conduct 2 one-on-one informational interviews with professionals in different natural resource careers
- Join 2 mini-externships to engage in hands-on learning experiences
- Participate in 2 post-secondary panels to learn about different areas of study in natural resources across the UH system

*Increasing my own knowledge makes me a better resource for my students. Learning how many diverse careers there are was a big takeaway of the program.*

Sarah Smorol, Ho'ola Leadership Academy teacher, Kapolei High School

*I feel like a better teacher because of completing the program.*
A RESOUNDING SUCCESS!
EXPANDING KNOWLEDGE AND MEETING GOALS

Self-reported data from all seven participants showed the program was effective at (1) increasing the participants' personal knowledge of natural resource careers and topics, and (2) giving them the resources and tools they need to pass on this knowledge to their students. Teachers were also tasked with creating a lesson plan aimed at increasing student knowledge of natural resource careers and topics, something the participating teachers were able to accomplish regardless of the subject they taught.

“Being exposed to a wide variety of natural resource careers has been very fun . . . It helped me see [the many] aspects of natural resource management.”
Laxmi Diaz, Academy of Business, Agriculture, and International Baccalaureate teacher, Campbell High School

“I have learned the multiple paths that can be taken to get into these careers. Most importantly, internships and hands-on experience seems to be the best way to get into these careers.”
Maile Resurrection, Ho‘ola Leadership Academy teacher, Kapolei High School

Furthermore, in a comparison of the level of knowledge, comfort, and/or experience across 30 varying natural resource topics that were self-reported on by participants, knowledge was shown to increase between 14-46% for all topics evaluated with an overall average increase of 33% across topics.

“Of Participants:
100% felt the program was effective overall at meeting all four goals of the program
100% felt that the externships, webinars, and informational interviews (86% for the college panels) were effective components of the program
100% planned on keeping relationships with partners/organizations met during the program
86% were interested in participating in the program again

I felt like with all the resources, organizations, speakers, webinars, videos, this [program] was a buffet of information.”
Jevin Guieb, Academy of Business, Agriculture, and International Baccalaureate, Campbell High School

Teacher Participant Subject Areas
Art  English  Math
International Baccalaureate
Natural Resources
A PLACE FOR EVERYONE
BUILDING A HOMEGROWN WORKFORCE

Kupu's Natural Resources Professional Development Program identifies gaps that exist in natural resource education, illuminates the importance of filling these gaps, and provides a program model to begin to address these discrepancies. The foundation of Kupu's NR PD Program is a "Conservation Career Tree" - a tool used to illustrate how the overarching topic of "conservation" branches into careers of all respects: from fisheries manager to policy maker; from grant writer to GIS specialist; from conservation enforcement officer to wildlife biologist. The relevance and merit of this foundational concept is clear as multiple participants shared that the program was successful in opening their eyes not only to all of the careers available in conservation broadly, but to all of the opportunities that exists here in Hawai'i for Hawai'i's youth.

I will let my students know about the many amazing jobs that are available at home, how to possibly get involved already, and how important it is to understand native plants animals and their role with our land and sea

Amy Rabago, Academy of Business, Agriculture, and International Baccalaureate teacher, Campbell High School

There's room for all kinds of students and interests and talents in the field of... conservation. We need students who are geneticists as well as Hawaiian language and culture specialists, along with athletic field surveyors, skilled botanists, as well as patient statisticians and snail wranglers

Summer Aona, Academy of Business, Agriculture, and International Baccalaureate teacher, Campbell High School
MAHALO TO OUR PARTNERS!

Externship Sites
Bishop Museum ● DLNR-DOFAW ● Hawaiian Islands Land Trust ● Ko'olau Mountain Watershed Partnership ● Mālama Learning Center ● Mālama Pūpūkea-Waimea ● Paepae o Heʻeia

“The staff... gave a lot of good information on [Paepae o Heʻeia]. Their friendly personalities made it very easy to build a relationship, which in turn, made it easy to learn.”
- Terrius Harris, Academy of Business, Agriculture, and International Baccalaureate, Campbell High School

Informational Interviews
Matthew Gonser, Coastal and Water Program Manager, City and County of Honolulu Office of Climate Change, Sustainability and Resiliency ● Aarin Gross, Senior Program Manager, Policy & Operations, Conservation International - Hawaiʻi ● Katie Ersbak, Watershed Partnership Coordinator, DLNR-DOFAW ● Naiʻa Lewis, Artist, Hanau Creative LLC ● Rebekah Matagi Walker, Koʻolau Project Manager, Hawaiian Islands Land Trust Natalie McKinney, Executive Director, Kōkua Hawaiʻi Foundation ● Miwa Tamanaha, Co-Director, Kuaʻaina UluʻAuamo ● Chelsey Jay, Education & Community Partnerships Coordinator, Mālama Learning Center Sandy Ward, Executive Director, Mālama Puʻulao ● Ati Jeffers-Fabro, Wetland Coordinator, Mālama Puʻulao Cory Yap, Environmental Researcher, Nā Wai ʻEkolu ● Evelyn Wight, Senior Communications Manager, The Nature Conservancy ● Daniel Arencibia, Junior Scientist, Na Aliʻi Consulting & Sales LLC

“The interview [with Miwa Tamanaha of Kuaʻaina Ulu ‘Auamo (KUA)] solidified my belief that most careers can always be tied back to natural resources.”
- Maile Resurrection, Hoʻolua Leadership Academy teacher, Kapolei High School

Leeward Community College Panel
Donn Viviani, Professor ● Heather Takamatsu, STEM Counselor ● Daniella Elliott, Assistant Professor and Sustainable Agriculture Program Coordinator ● Alyssa McDonald, Assistant Professor and Marine Option Program Coordinator

“I felt that this panel helped me gain a better understanding of how a high school student can find a path to a career in Natural Resources.”
- Summer Aona, Academy of Business, Agriculture, and International Baccalaureate teacher, Campbell High School

UH System Panel
Albie Miles, Assistant Professor, UH West Oahu ● Mehana Vaughn, Associate Professor, UH Manoa
Melissa Price, Assistant Professor, UH Manoa ● Patrick Hart, Professor, UH Hilo ● Adam Pack, Professor and Chair of Psychology, UH Hilo

“I am able to give my students options for their continued education, in case they want to study on a different island, or study a specific major that was only offered at a specific island site.”
- Terrius Harris, Academy of Business, Agriculture, and International Baccalaureate, Campbell High School