



ARTWORK BY AVALON PARADEA

KAIAMEAOLA CLUB PRESENTS

RESTORING RELATIONSHIPS MAUKA TO MAKAI

2023 TCBES SYMPOSIUM

March 30 • 9:00 AM to 4:00 PM

March 31 • 9:00 AM to 3:30 PM

Hybrid Conference



ABOUT THE ARTIST

AVALON PARADEA



Avalon Paradea (they/ them) was raised in Waikōloa and has been passionately making art since childhood.

Forever fascinated in human culture and the pilina (relationships) we build with the natural world, they immersed themselves in the realms of anthropology and ethnobotany as an undergraduate at UH Mānoa.

Working as an environmental conservationist and archaeologist deepened their own pilina with the land, leading them to discovering the magic of co-creating with nature using wild materials.

Avalon's passion centers around 'āina-based arts, such as kapa (Hawaiian barkcloth), plant dyes, and earth pigments. Now living the busy life of a TCBS grad student, making time for creative play is especially important for maintaining sanity.





THURSDAY KEYNOTE

JEN LAWSON

PILINA 'ĀINA



Jen Lawson is the Executive Director of the Waikōloa Dry Forest Initiative where she has been working to develop forest restoration and education programs since the nonprofit was formed in 2011. She is passionate about bringing community into native forest restoration, combatting plant blindness, and inspiring people to find their role in the care and stewardship of the places where they live and visit. She has a degree in Biology with an emphasis in Plant Reproductive Ecology from Portland State University and has been working in the conservation field in Hawai'i since arriving in 2008. Jen lives in Waimea with her husband, their four-year-old daughter and their two troublemaking dogs.

ABSTRACT

The Waikōloa Dry Forest Initiative was created to intervene in the degradation of the native ecosystem in the dry lands of Waikōloa. Since forming, the non-profit has created a nature preserve and developed many educational programs with and for the community. Today, the preserve is a vibrant place of learning and an inspiring example of the resiliency of native dryland species. This presentation will explore some of the plants, people, and programs that make up the Waikōloa Dryland Forest community and share some of the lessons that have helped guide and shape efforts to restore this important place.





FRIDAY KEYNOTE

ROBERTA KU'ULEI KEAKEALANI

PILINA ~ REMEMBERED AND IMAGINED



Born and raised in the uplands of Pu'uanahulu North Kona, Roberta Ku'ulei Keakealani comes from a family of hard working men and women. It is in the cool uplands of Waimea that Ku'ulei was raised, riding the slopes of Maunakea and Kohala alongside her Dad and uncles. Growing up as a Parker Ranch cowboys's child has afforded her a lifetime of experiences and memories that has shaped her to be the kanaka she is today.

Ku'ulei has been in cultural education from the early 1990's. Learning from what she deems as "the two greatest teachers" Ku'ulei continues to learn from the elders in her family and community as well as from the landscapes and seascapes she's privileged to care for in her life's work. You may find her one day on the upper slopes of Hualālai restoring tomorrow's native forests to being waist deep in Ka loko o Kiholo fishpond the very next day.

No matter where she may find herself, you may hear a story or two being conveyed or the significance of place names being spoken. She is happy to share her knowledge in a long line of hereditary kuleana; her three daughters' will someday assume their places in this succession that they are honored to uphold.

Along with her husband and children, they continue to live the ways of their 'ohana, being close to the lands they so love and cultivating and growing food to sustain their lives. As a steward of 'āina Ku'ulei is humbled to live by the 'olelo no'eau, He ali'i ka 'āina, he kauwā ke kanaka.





THURSDAY MARCH 30

SESSION 1 SCHEDULE

9:00 AM - 12:00 PM

- | | |
|---------------|---|
| 9:00 - 9:25 | Opening Remarks
Kīpaepae Welina by Ākeamakamae Kiyuna |
| 9:25 - 10:30 | Keynote Speaker
Jen Lawson |
| 10:30 - 10:40 | Break |
| 10:45 - 10:55 | A Pathway Woven Through Interconnection
Anya Benavides |
| 10:55 - 11:10 | Decision Support to Improve Ridge-to-Reef Stewardship in an Era of Rapid Global Change
Gina McGuire |
| 11:10 - 11:20 | Puna, Hawai'i: Conserving Bicultural Legacies
Hannah Rozendo |
| 11:20 - 11:35 | Kuku Kapa and Pilina 'Āina: Barkcloth-making and Relationships with Nature
Avalon Paradea |
| 11:35 - 11:50 | A Study in Ebony: Molecular evidence linking the ebony gene to the black pupae phenotype in true fruit flies
Daniel Paulo |
| 11:50 - 12:00 | Rising coastlines: The future impact of sea level rise
Brianna Ninomoto |
| 12:00 - 1:00 | Lunch |





THURSDAY MARCH 30

SESSION 2 SCHEDULE

1:00 PM - 4:00 PM

- 1:00 - 2:00** **Poster Presentations**
- 2:00 - 2:15** **Break**
- 2:15 - 2:30** **Hungry Hungry Honu: East Hawai'i Island green turtle (*Chelonia mydas*) diet determination utilizing stable isotopes ($\delta^{13}\text{C}$ and $\delta^{15}\text{N}$)**
Bella Chapman
- 2:30 - 2:45** **Infestation and behavioral trends of *Cryptophlebia* moth pests (Lepidoptera: Tortricidae) in commercial macadamia nut orchards in Hawai'i**
Nathalie de Rocquigny
- 2:45 - 3:00** **Advancing Endangered Hawaiian Bird Species Monitoring Using Bioacoustics and Machine Learning**
Amanda Navine
- 3:00 - 3:15** **Understanding variable macroalgal dissolved organic carbon dynamics through a diasporic 'Ōiwi research methodology**
Kalani Carlson
- 3:15 - 3:30** **A comparison of nutrient fluxes during stormflow and baseflow conditions in the Wailuku River, Hilo, Hawai'i, USA.**
Rachel Mayo
- 3:30 - 3:45** **Closing Remarks**





FRIDAY MARCH 31

SESSION 1 SCHEDULE

9:00 AM - 12:00 PM

- 9:00 - 9:25** **Opening Remarks**
- 9:25 - 10:30** **Keynote Speaker**
Roberta Ku'ulei Keakealani
- 10:30 - 10:40** **Break**
- 10:45 - 10:55** **Hawai'i island forest restoration, ecology, and
plant community structures through a
watershed partnership approach**
Hanna Michaud
- 10:55 - 11:10** **Linking the functional traits of leaf litter and
litter-dwelling arthropods to understand
ecological interactions**
Anuheia Robins
- 11:10 - 11:20** **Developing Climate Resilient Restoration
Techniques for Hawaii's Lowland Wet Forests**
Konapiliahi Dancil
- 11:20 - 11:35** **Understanding the Songs of the 'Apapane**
Paulo Ditzel
- 11:35 - 11:50** **Diving in Deep: Deep Learning for the
Identification of Yellow Tang (*Zebrasoma
flavescens*) Grazing Behavior in Hawai'i**
Trevor Nishida
- 11:50 - 12:00** **Announcements**
- 12:00 - 1:00** **Lunch**





FRIDAY MARCH 31

SESSION 2 SCHEDULE

1:00 PM - 3:30 PM

- | | |
|--------------------|---|
| 1:00 - 1:10 | Session Two of Presentations Begins |
| 1:10 - 1:25 | Creating reference native communities for conservation efforts by modeling dominant plant species across Hawai'i
Jonathan Price |
| 1:25 - 1:40 | Agronomic effects on energycane cultivars biomass for aviation biofuel
Brian Rule |
| 1:40 - 1:55 | Feather growth rates of forest birds in a Hawaiian forest
Wade Burris |
| 1:55 - 2:10 | Mapping a Reef in Minutes: Comparative Analysis of Underwater Photogrammetry Systems for Accurate, Affordable, and Rapid Data Collection in Threatened Coral Reef Ecosystems
Alex Spengler |
| 2:10 - 2:25 | Monitoring <i>Culex quinquefasciatus</i> in Kīpahulu Valley, Haleakalā National Park to Support Future Landscape-scale Mosquito Control
Lauren Smith |
| 2:25 - 2:40 | Break |
| 2:40 - 2:50 | Announce Auction Winners |
| 2:50 - 3:00 | Award Ceremony |
| 3:00 - 3:15 | Closing Remarks
Kīpaepae Ho'oku'u by No'el Tagab-Cruz |





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