



FALL 2022 EDITION

UNIVERSITY OF HAWAII AT HILO
TROPICAL CONSERVATION BIOLOGY
& ENVIRONMENTAL SCIENCE



Fall Festivities

TCBES Semesterly Newsletter

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Summer and Fall 2022 graduates, December 16

Pictured: John Graves, Petrisha Alvarez, Whitney Raffipiy, Rose Criscione,
Shayla Waiki, Joseph "Crispin" Nakoa

INSIDE THIS ISSUE:

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STUDENT & FACULTY

Highlights

Congratulations!

Shayla Waiki



Shayla Waiki, a Summer 2022 TCBES graduate, has received the prestigious E. Gordon Grau Fellowship. For the next two years, she will be the project coordinator for the non-profit Wastewater Alternatives and Innovations (WAI) working on cesspool and wastewater issues in Hawai'i. Shayla wants to pursue a career in environmental law in order to help change water policies in Hawai'i. Read her full story [here!](#)

Peter Mills



Dr. Peter Mills, a faculty member in UH Hilo's Anthropology department, earned the 2022 Public Archaeology Award for his work with Pā'ūla'ūla on Kaua'i. This work dates back to his PhD research at UC Berkeley and has positively impacted Native Hawaiian history. Read the full article [here!](#)

Dr. Ryan Perroy and TCBES alumna Eva Brill developed a new aerial device for early Rapid 'Ōhi'a Death detection. [Read the article here.](#)



TCBES alumni Crispin Nakoa and Kailey Pascoe work with **Dr. John Burns** to conduct 3D reef research. [Click here to read more.](#)

UH Hilo undergraduate alumnus **Tyler Gerken**, **TCBES alumna Louise Economy**, and **Dr. Tracy Wiegner** publish research on antibiotic resistant Staph in Hilo Bay.

[Read the full article here.](#)



Dr. Marta J. de Maintenon from the Marine Science department is researching the genetic and hereditary molecular differences between different species of snails to track their family's evolution.

[Click here to read more.](#)



Drs. Steve Lundblad and Peter Mills study lava samples from recent Mauna Loa eruption with introductory geology class. [Click here to read more.](#)

In The News...

STEWARDSHIP PROGRAM RE-ESTABLISHING ENDANGERED SILVERSWORD ON MAUNA KEA

Featuring: TCBES alumna Jessica Kirkpatrick

"UH Hilo's Center for Mauna Kea Stewardship is growing...seedlings for reintroduction sites across Mauna Kea, sites where previous plantings have been successful and that offer protection from hooved animals." Read the full article [here](#)!



Silversword (*Argyroxiphium sandwicense*) seedlings.

GRADUATE STUDENT PRESENTS WEBINAR

Stephanie Mladinich, a graduate scholar in the Manager Climate Corps (MCC) program, presented her research on mosquitoes at a monthly webinar hosted by the Hawai'i Experimental Tropical Forest (HETF). Stephanie's talk, with **Dr. Patrick Hart**, was titled "Steps towards improving avian disease-carrying mosquito surveillance in the face of climate change," and was conducted in Hakalau Forest National Wildlife Refuge and Laupāhoehoe Forest Reserve.

PI-CASC GRAD SCHOLARS

New students in PI-CASC graduate program are **Ihilani Kamau, Josephine Tupu, and Konapilihi Dancil**, who join continuing TCBES students supported by PI-CASC funding, **Walter Boger, David Russell, Stephanie Mladinich, Amberly Pigao, Nikola Rodriguez, and Maybeleen Apwong**. All are working hard on climate projects across Hawai'i and the US Affiliated Pacific Islands, on topics from reef management to agroforestry, sea-level rise to avian malaria, and more.

PI-CASC RESEARCHERS VISIT ALASKA



"A group of scientists from the University of Hawai'i, who are working on climate adaptation, traveled to Juneau this summer to meet with partners in Alaska. From left, Danielle Bartz (HI), Lindsay Call (AK), **Walter Boger** (HI), Jeff Falke (AK), Jason Fellman (AK), Bob Bolton (AK), **Steve Colbert** (HI), Ryan Bellmore (AK), **Tim Grabowski** (HI, at back), **Tracy Wiegner** (HI), Yu-Fen Huang (HI), and Yin-Phan Tsang (HI). (Courtesy photo)." Read more [here](#).

PI-CASC SCHOLARS ALSO ATTEND EARLY CAREER WORKSHOP: [READ ABOUT IT!](#)

TCBES Seminars

VISIT OUR WEBSITE TO VIEW UPCOMING SEMINARS [HERE](#)

Congratulations Graduating students!

Petrisha Ulani Alvarez

« Investigating spinner dolphin presence along the windward coast of Hawai'i island through both passive acoustic monitoring (PAM) and boat-based visual techniques »

Thesis Advisor: Adam Pack

Trevor Chambers

« A comparative CO2 life cycle analysis of three different nutrient sources for a novel offshore seaweed farm in Hawai'i »

Thesis Advisor: Kevin Hopkins

Rose Angela Criscione

« Colorimetric determination of glyphosate in water using ozonolysis followed by spectrophotometric analysis of the phosphate product with molybdenum blue reagent »

Thesis Advisor: Matthew Platz

John Graves

« Zen and the art of counting fish »

Internship Host Agency: State of Hawai'i Division of Aquatic Resources

Lauren Kapon

« He ala aekai - path near the sea; sea level rise impacts upon 'opihi habitat »

Internship Host Agency: Nā Maka Onaona

Erika Kamalani Akemi Kekiwi

« Development of new bioacoustics tools to monitor and better understand populations of two critically endangered Hawaiian bird species on Maui »

Thesis Advisor: Pat Hart

Blake Jonathan Miles

« Characterization of Queensland Longhorn Beetle (*Acalolepta aesthetica* Olliff) distribution, host selection preference, and environmental correlations in Puna District, Hawai'i County, Hawai'i »

Thesis Advisor: Norman Arancon

Darrian-Skye Kahealani Muraoka

« Flowing through the watershed: The impacts, outreach, and future of surface water runoff in Hilo, HI »

Internship Host Agency: Waiwai Ola Waterkeepers Hawaiian Islands

Joseph William Pa'akaula Nakoa III

« Dilution of sewage pollution in the coastal waters of Hilo, Hawai'i, USA; an area with high river and groundwater inputs »

Thesis Advisors: Tracy Wiegner and Steven Colbert

Missed a Defense or Presentation?

No worries!

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are on the TCBES
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Graduating students continued

Whitney M. Raffi

« Furthering the scientific and local communities' understanding of anthropogenic impacts on cetacean species to better conserve critical marine mammal species in Hawai'i »

Internship Host Agencies: Pacific Whale Foundation, Cascadia Research Collective, and State of Hawai'i Division of Aquatic Resources

Bobbie Suarez

« Occupancy and detection coefficients of tropical coral reef fish of the Pacific »

Thesis Advisor: Tim Grabowski

Shayla Waiki

« Sewage pollution in Keaukaha, Hawai'i, U.S.A.: An area impacted by cesspools and an offshore wastewater outfall »

Thesis Advisors: Steven Colbert and Tracy Wiegner

News From Other Departments

UH HILO STUDENT MENTORING PROGRAM GETS STATEWIDE SHOWCASE

"A new student-led peer mentoring program for Hawai'i Island high schoolers is taking shape at University of Hawai'i at Hilo. The Ka Pouhana Mentoring Program pairs UH Hilo student mentors with faculty members to give individualized support to first-year college students." Read the full article [here](#).



UH HILO PROFESSOR WINS GHERARDI DAVIS PRIZE

Sarah Marusek, Professor of Political Science, received the Gherardi Davis Prize for her co-edited volume, Flags, Color, and the Legal Narrative: Public Memory, Identity, and Critique, from the Flag Research Center that aims to promote advancement of knowledge and understanding on the use of "symbols to express political, cultural, and social ideals through flags and flag-related material culture."



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