



FALL 2020 EDITION

UNIVERSITY OF HAWAII AT HILO
TROPICAL CONSERVATION BIOLOGY
& ENVIRONMENTAL SCIENCE



Year End Newsletter

TCBES Semesterly Newsletter



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Appreciating our GA's

"It's a privilege being a part of the educational journey for UH Hilo's undergraduate students. This opportunity to learn, teach, and watch these students - and myself - grow over a semester has positioned me to succeed in the field of conservation" - *Andre Nguyen*

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STUDENT & FACULTY

Highlights

Congratulations!



Kylie Roy:
Beginning a
PhD at Purdue
University!

Kylie Roy started her PhD in Forestry and Natural Resources under Dr. Matthew Ginzal at Purdue University. Kylie's dissertation focuses on the entomology of Rapid 'Ōhi'a Death. Congratulations!



Heather Kimball,
New District 1
Representative

TCBES 'ohana, Heather Kimball, joins the Hawai'i County Council as the new Representative for District 1



Jeff Stallman:
Beginning a
PhD at Purdue
University!

Jeff started his PhD in the Department of Botany and Plant Pathology at Purdue University. Jeff has joined the Aime Lab where he is studying the evolutionary systematics of the fungal class Leotiomycetes. Congratulations!



Congratulations to recent TCBES graduate, Jeff Stallman, on his new publication on a brand new fungi species endemic to Puna District.

[*Click here to read more*](#)

Maya Munstermann, recent TCBES graduate, co-authors paper describing the benefits undergraduate students receive from analyzing their own data

[*Click here to read more*](#)



Using art and design to explain a new coral reef monitoring tool.

[*Click here to read more*](#)

Analytical chemist and avid surfer Cliff Kapon takes to his board to study the health of coral reefs off the coast of Hawai'i.

[*Click here to read more*](#)



Team of UH at Hilo students and faculty publish work on coral health and disease.

[*Click here to read more*](#)

Steve Colbert and recent grad Samantha DeVivo maintain the Pacific Islands Ocean Observing System (PacIOOS) in Hilo and Pelekane.

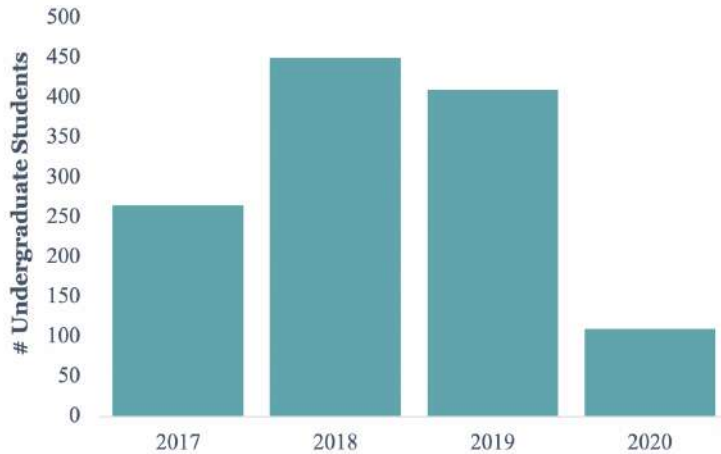
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TCBES GRADUATE ASSISTANTS:

Integral to Undergraduate Education at UH Hilo

Number of Undergraduate Students Interacting with TCBES GAs



While their contributions to undergraduate education and training at UH Hilo are often overlooked, Graduate Assistants (GA) in the TCBES program play an essential role. They independently instruct laboratory sections in Marine Science and Biology, assist with laboratory instruction for courses in Biology and College of Agriculture and Natural Resource Management, and provide technical assistance to students in the Spatial Data and Visual Lab with their

Geography coursework. Beyond coursework, these valuable members of the TCBES community help maintain the graduate program by updating the TCBES website and Facebook page, as well as managing program data, vehicle maintenance/rentals/payments, and the graduate workroom's resources.

Over the last three years (2017-2020, 6 semesters), 1485 undergraduate students were positively impacted by their interactions with TCBES GAs through instruction, advising, and mentoring. Often through these experiences, the undergraduates have epiphanies, realizing that they can and want to attend graduate school, and many often end up attending UH Hilo's TCBES program. Approximately, 40% of TCBES graduate students received their undergraduate degrees from UH Hilo

GA positions also provide meaningful professional experiences for the graduate students making them more competitive for GA positions in Ph.D. programs and other careers in environmental/conservation education. While the number of GA positions has declined since the establishment of the TCBES program (9 to 4), these positions still remain a vital recruitment tool for attracting and retaining top students from competitive undergraduate programs throughout the United States. **Here is the testimony of some of the current GAs and what this position has meant to them:**



"My GA position, quite literally, afforded me the opportunity to pursue my master's degree. On top of the financial security my position provided, I was able to gain more experience as a teacher and have experiences I wouldn't have had otherwise"

- Dawn McSwain

"It's a privilege being a part of the educational journey of UH Hilo's undergraduate students. This opportunity to learn, teach, and watch these students -- and myself -- grow over a semester has positioned me to succeed in the field of conservation"

- Andre Nguyen



Manu Minute

Featuring Dr. Patrick Hart

Manu Minute brings you the rich sounds from Hawai'i's native forests and shorelines. Each week, Dr. Hart features a different Hawai'i bird and its unique song and talks about its environment and conservation.

Manu Minute is a collaboration between Hawai'i Public Radio and the LOHE Bioacoustics Lab at the University of Hawaii at Hilo.

[Read more about Manu Minute here](#)

MANUMINUTE

Wednesdays on The Conversation

with Patrick Hart

HPR-1



TALLYING THE TREES:

TCBES students are playing an important role in envisioning a campus with fewer invasive plants



Under the guidance of Administrative Affairs, next semester a pilot project will occur on campus, where a small area will be transformed by removing the highly invasive plant species and replanting them with native Hawaiian and canoe plants. This project is an outgrowth of work done by TCBES students. Thathmini Kularatna, a thesis-track student working on tropical agriculture, spearheaded this effort through a Directed Studies (CBES 699) and presented her research to UH administration in November. She created maps of two native and six invasive species on campus and did hotspot analysis, using her expertise in GIS. This analysis was facilitated through data collection by herself and student partners in CBES 601 during Fall 2018 (John Flint, Kimo Melcher, Emma Sinclair) and GEOG 385.

"When I first started this project, my aim was to bring awareness to the Director of Auxiliary Services and interim vice chancellor for administrative affairs about the distribution of invasive trees and how crucial it is to the survival of existing native trees within the campus. I was blown away by their immediate response after the presentation. They offered their help and their approval for the possible removal of these trees on selected areas of the campus premises. Looking forward to the future, my aim is to introduce more native and non-invasive indigenous trees into the campus grounds. My hope is to provide the experience of living in a native ecosystem for the campus community, build our community's connection with nature, inspire others to establish their own native ecosystems, and bring awareness about the invasive trees threatening the survival of the native trees." - *Thathmini Kularatna*

The project is still in the planning stages, so stay tuned for more details!

Congratulations Graduating Students!

Bret Mossman

Kani a ka 'Ākiapōlā'au

Advisor: Patrick Hart

Keena Curbelo

Characterizing the *Acalolepta aesthetica* invasion in Hawai'i

Agency: USDA Agricultural Research Service

Wilson Malone

Sustainable management of Alaska's Kenai River Chinook Salmon in its economic, cultural, and scientific contexts

Agency: Alaska Department of Fish and Game

Kelsey Meagher

Monitoring of the critically endangered Hawksbill turtle on Hawai'i Island

Agency: Hawai'i Island Hawksbill Project

Jeremy Schrader

In aid of the 'alalā: a multifaceted internship in applied conservation

Agency: Keauhou Bird Conservation Center

Koa Matsuoka

Dispersal & germination by native vs. exotic avian frugivores of Hawai'i Island

Advisor: Rebecca Ostertag

Martha Kawasaki

The urbanization of the Hawaiian Stilt (*Himantopus Mexicanus Knudseni*)

Advisor: Pat Hart

Jake Rodrique

The effects of vermicomposting and pre-composting on fecal coliform bacteria occurrence in animal manures

Advisor: Norman Arancon

Dominique Zarders

Investigating mitochondrial DNA genes and bioassays of lantana lace bug to assess a possible host change

Advisor: Jesse Eiben



Missed a Defense?

No worries! All completed defenses are on the TCBES YouTube Page!



Watch them now!

Connect with us!



Check out our Website!



Follow us on Facebook!

COVID-19 Protocols for **TCEBS Lab (W16)**

W16 is a student workspace and not to be used for meetings, gatherings, & socializing until further notice. Capacity is limited to 6 students at a time, with ≥ 6 ft between. Upon entry, you must sign into the Lab log book. Disinfect hands on arrival & departure from lab, and wipe down the surfaces where you work. Masks (cloth or other, covering nose/mouth) or face shield will be worn in the Lab at all times. No food or drink allowed until further notice. Students should seek medical advice if experiencing symptoms and immediately report illness to the TCBES Director, Associate Director, and their Advisor or Internship mentor.

TCBES's UH Foundation

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