*Fred (center) and Judith (right) Mackenzie on a hike in Torres del Paine National Park, Peru, with their friend, Joe.*

**About the Program**

The Department of Oceanography launched the undergraduate Global Environmental Science program in 1998 with the generous support of the Pauley Foundation. The vision and brainchild of Oceanography Emeritus Professor Dr. Fred Mackenzie, the GES program is known for its rigorous math and science foundation, integrated study of environmental- and sustainability-related issues, and faculty-mentored research thesis requirement. This research experience results in every GES graduate having completed a faculty-mentored research project, written a thesis, and presented their research results in a public forum. As a result of the challenging curriculum and research thesis requirements, GES graduates are well-prepared to enter the workforce in environmental science-related fields and industries or continue on to graduate studies in many different subjects in the sciences, social sciences, law, medicine, and engineering.

**Contact Information**

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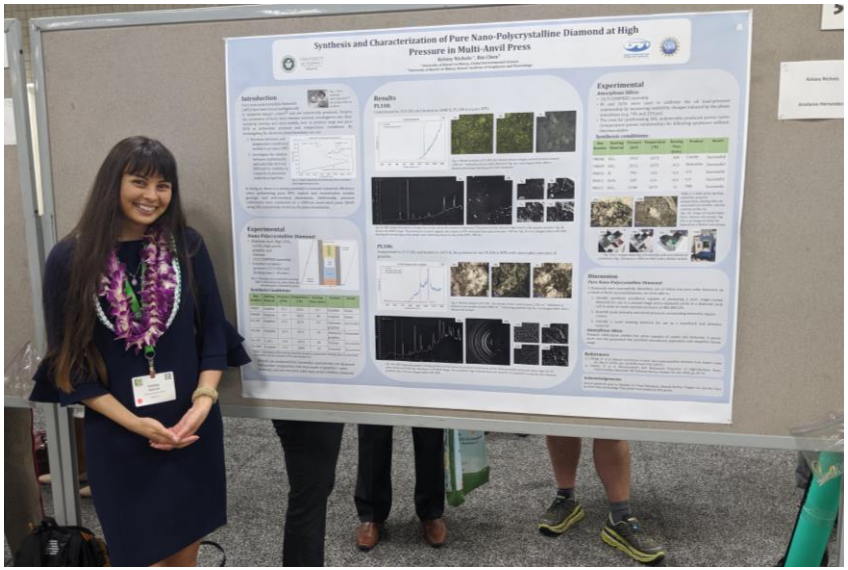
The University of Hawai'i at Mānoa Department of Oceanography presents

# FALL 2019

# SYMPOSIUM

## GLOBAL ENVIRONMENTAL SCIENCE

Friday, December 13, 2019
Marine Sciences Building Room 114
2:00pm - 2:30pm
Reception to follow




*Kelsey Nichols presented her poster on nano-polycrystalline diamond at the 2019 Society for Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS) National Diversity in STEM Conference, held in Honolulu, HI, in October 2019. Photo credit: Michael Guidry*

## GES Symposium

Students presenting at the Global Environmental Science (GES) Symposium conducted basic research, analyzed their results, and compiled their findings into a thesis format. Many theses are converted into peer-reviewed journal publications; a feat usually accomplished by students once in graduate school. The GES Symposium is a celebration and culmination of undergraduate research efforts and experiences, so join us in supporting, engaging, and applauding today's presenter.

## Agenda

**2:00** **Welcome**

**2:05** **Kealohi Sabate**
*Investigation of the Microbiota Associated With the Degradation of Invasive Algae*
Mentor: Brandon Yoza (Hawaii Natural Energy Institute)

## Biography

**Kealohi Sabate**
*Mentor: Brandon Yoza*

Growing up on an island, Kealohi has always wanted to do something related to the environment, particularly renewable energy, but was never sure where she could go with it; she had intended to major in Business because she had never considered the STEM field! Since transferring from Windward Community College and entering the GES program in fall 2017, Kealohi is most proud of being able to represent the small pool of Native Hawaiians in STEM and wants to pursue a doctorate in the field. In the interim, however, she plans to work in the field of conservation and dive into renewable energy research before applying for graduate school next year. She credits the GES program for allowing her to explore her interests and presenting her with various opportunities to travel to Puerto Rico and Costa Rica to carry out and present her research. Kealohi has received scholarships and funding for her research from the Native Hawaiian Student Services ʻŌiwi Undergraduate Research Fellowship, UH-OHA Hoʻonaʻauao Higher Education Scholarship Program, American Indian Science and Engineering Society Advancing Agricultural Science Opportunities for Native Americans, and the Outrigger Duke Kahanamoku Foundation. Kealohi was born in Honolulu, HI, and raised in Kāneʻohe, HI.

*Kealohi Sabate participated in a Research Experience for Undergraduates through the Organization of Tropical Studies during the summer of 2019 in Costa Rica. Her research focused on looking at the temperature sensitivities of canopy soils and how they may influence carbon cycling across different climates. Photo credit: Jessica Murray*