

Mahalo!

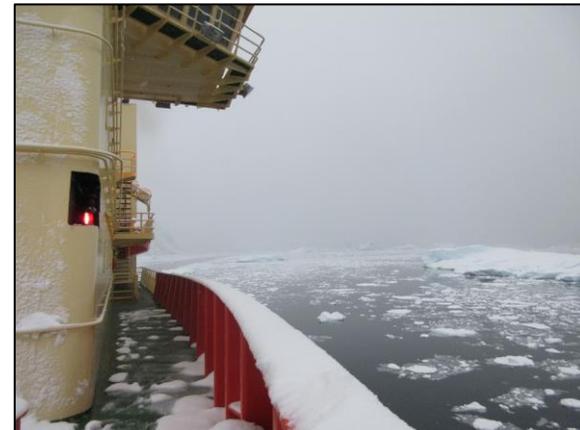


## Acknowledgments

We are so grateful to all our donors for their support of the wonderful work of our students and faculty. A special mahalo to Dr. Lorenz and Ursula Maggaard and Dr. Fred and Judith Mackenzie for their support of GES since the beginning of the program.

# GES SYMPOSIUM

Friday, May 5, 2017  
1:00 - 4:30pm  
Marine Science Building  
Room 114  
University of Hawai'i at Mānoa



*Photo courtesy of Katy Christensen. Port side of RVIB Nathaniel B. Palmer surrounded by ice and fog in Andvord Bay. April 2016, Fjord ECO Project, Western Antarctic Peninsula.*

## GES Symposium

GES students presenting at this symposium conducted basic research, analyzed their results, and compiled their findings into a thesis format. Many theses are converted into peer-reviewed journal publications by the undergraduate student as first author; a feat usually only accomplished by students in graduate school. The GES Symposium is a celebration and culmination of the GES student's undergraduate research efforts, so join us in supporting, engaging, and applauding today's presenters.

### Agenda

- 1:00 – 1:10 Welcome & Opening Comments
- 1:10 – 3:30 Oral Presentations
- 3:30 – 4:30 Refreshments & Celebration

### Oral Presentations

- 1:10** Katy Christensen  
*“The Upper Layer Variability of an Antarctic Glacio-marine Fjord: Andvord Bay, Western Antarctic Peninsula”*  
Mentor: Mark Merrifield (Oceanography)
- 1:30** Yazhou Fu  
*“Using Climate Variables and Airborne Lidar Derived Vegetation Structure for Accessing the Habitat of Breeding Birds: A Case Study in Minnesota”*  
Mentor: Qi Chen (Geography)
- 1:50** Michelle Marchant  
*“Application of Coastal Vulnerability Index (CVI) on the Island of Oahu”*  
Mentors: Oceana Francis (Civil & Environmental Engineering) & Yaprak Onat (ORE)
- 2:10** Dalton Muchow  
*“Standoff Categorization of Organics for Planetary Exploration”*  
Mentor: Anupam Misra (HIGP)

## About GES

The Dept. of Oceanography launched the undergraduate GES Program in 1998 with the generous support of the Pauley Foundation. The vision and brainchild of Emeritus Oceanography Professor Dr. Fred Mackenzie, the GES Program is known for its rigorous math and science foundation, its integrated study of environmental- and sustainability-related issues, and its 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 experience 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 GES

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## Biographies (cont.)



### **Jaline Seruge**

*Mentor: Marek Kirs*

Jaline was born in Honolulu, HI and raised in Gelnhausen, Germany. She came to UH and entered the GES Program in Fall 2014. After graduation, Jaline plans to continue working with Dr. Kirs over the summer to conduct more research for the Water Resources Research Center. Jaline will also continue to work as a dive instructor for Surf N Sea, and apply for jobs or internships related to environmental work in Hawai'i. Jaline would like to acknowledge her father Jalil.



### **Alisha Summers**

*Mentor: Charles "Chip" Fletcher*

Alisha was born in Honolulu, HI and raised in Maui County. She came to UH in Fall 2013 and entered the GES Program in Spring 2014. She was awarded UROP research funding, and also won numerous awards and academic achievements while in the GES Program. These include the Dean's List, UH Manoa Chancellor's Scholarship, and the Francis and Evelyn Foo Scholarship. After graduation, Alisha plans to travel with her sister to Southeast Asia.

## Oral Presentations (cont.)

- 2:30** Jaline Seruge  
*"Challenges with the Application of qPCR Based Tests for Enterococci as a Rapid Beach Management Tool in Hawai'i"*  
Mentor: Marek Kirs (Water Resources Research Center)
- 2:50** Alisha Summers  
*"Beach Loss, Seawall Construction, and Land-Use Patterns at Odds with Coastal Zone Policy – East Oahu, Hawaii 1928-2015"*  
Mentor: Charles Fletcher (GG)
- 3:10** Jennifer A.T.K. Wong-Ala  
*"Disentangling Biophysical Factors Affecting Reef Fish Recruitment in West Hawaii Island"*  
Mentor: Anna Neuheimer (Oceanography)

## Supporting Undergraduate Research

If you would like to support GES, please consider making a donation online: <https://giving.uhfoundation.org/funds/12721704>.



*GES graduate Charles 'Aka' Beebe examining fishpond food web dynamics.*

## Biographies



**Jennifer Wong-Ala**

*Mentor: Anna Neuheimer*

Jenn was born and raised in Waimanalo, HI. She came to UH and entered the GES Program in Spring 2015. She was awarded the Ernest F. Hollings Undergraduate Scholarship and was also awarded Best Oral Presentation by an

Early Career Scientist at the ICES ASC in Copenhagen, Denmark. Jenn has been working with her mentor, Dr. Anna Neuheimer as a Connectivity Research Assistant for the past three years. She's also been a Research Technician for Dr. Jeff Drazen for two years. For two summers, she was also an intern with NOAA at Pacific Islands Fisheries Science Center with Donald Kobayashi.

Jenn will attend the Masters program at Oregon State University in the Fall. She's been accepted into the Ocean, Earth, and Atmospheric Science department with a concentration in Ocean Ecology and Biogeochemistry



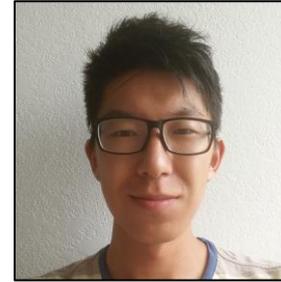
**Katy Christensen**

*Mentor: Mark Merrifield*

Katy was born and raised in Flagstaff, AZ. She came to UH and entered the GES Program in Fall 2013. She's completed an Antarctic field experience and presented a poster at ASLO. Katy has also won numerous awards and academic accolades

while in the GES Program, including the Dean's List, Phi Beta Kappa, Golden Key Honor Society, Francis and Evelyn Foo Scholarship, Manoa Chancellor's Centennial Scholarship, Study Abroad, Spanish Certificate, Music minor and Band Achievement Scholarship. Katy will attend the University of Washington in the Fall in the Oceanography PhD program.

## Biographies (cont.)



**Yazhou Fu**

*Mentor: Qi Chen*

Yazhou was born and raised in China. He came to UH in Fall 2013 and entered the GES Program in Fall 2014. After graduation, he plans to work in the field of environmental consulting, and/or graduate school.



**Michelle Marchant**

*Mentors: Oceana Francis & Yaprak Onat*

Michelle was born in Texas. She came to UH in Fall 2013 and entered the GES Program in Fall 2015. Michelle is also getting a concurrent degree in Psychology. After graduation, she plans to take an extended break to travel, and

then attend graduate school.



**Dalton Muchow**

*Mentor: Anupam Misra*

Dalton was born in FT. Bragg, NC and raised in both the U.S. and Korea. He came to UH and entered the GES Program in Fall 2013. He's been on the Dean's List and has a full scholarship through ROTC. Dalton was awarded

UROP research funding while in the program. After graduation, he plans to become a US Army Helicopter Pilot.