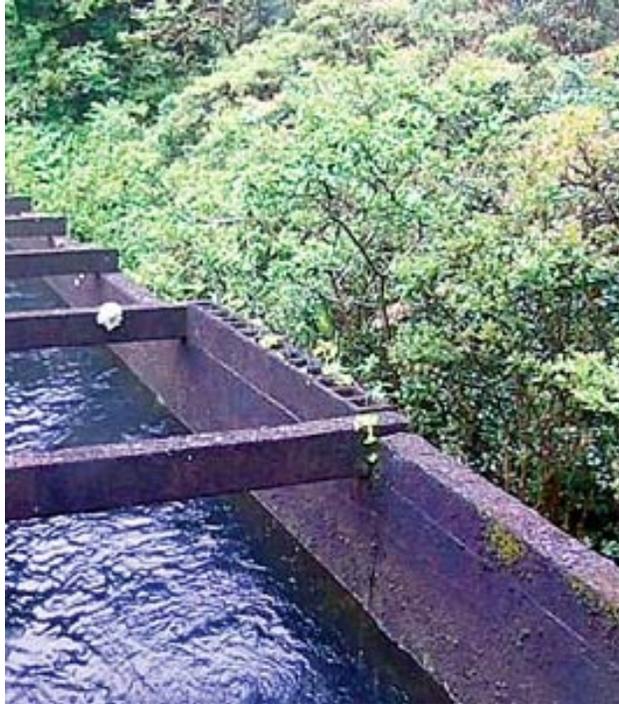




Ka Wai Ola: Living Waters of Maui

Andrea Kealoha, Lui Hokoana, Sean Calder, Sally Irwin

UH Maui College



Importance

- Agriculture
- Ocean
- Culture
- Drinking water
- Economy

Challenges

- Limited water resources
- Coastal waters fail to meet standards
- Declining health of marine ecosystems



Ka Wai Ola

- Strengthen ability of Alaska Native-Serving and Native Hawaiian (ANNH) Grant
- Carry out education, research and community development
- FANH sciences (food, agriculture, natural resources and human sciences)
- 2 yr grant





1. Outreach and Education

Introduction to Water Quality

- Non-credit course through OCET
- Water regulations, standards and monitoring procedures
- Farmers, fisherman, conservation groups, general community
- June 2019 and Sept 2019
- Informed by industry and government experts on Maui

What's in your Water?

Free!

What: Introduction to Water Quality

Where: UH Maui College

When: 6-8 pm on September 5, 12, 19, 26 2019



Eva Blumenstein
Dept of Water
Supply



John Dobovan
Kulahaven Farms



Jason Hew
Maui Soil and
Water Conservation
District



Robin Knox
Maui Ocean Center

Maui's leading water quality experts will introduce you to water regulations, standards and monitoring procedures as it applies to our oceans, streams, food and drinking water on Maui.

To enroll visit <http://maui.hawaii.edu/edventure/>
For more information contact
Andrea Kealoha at andreake@hawaii.edu



Summer Bridge

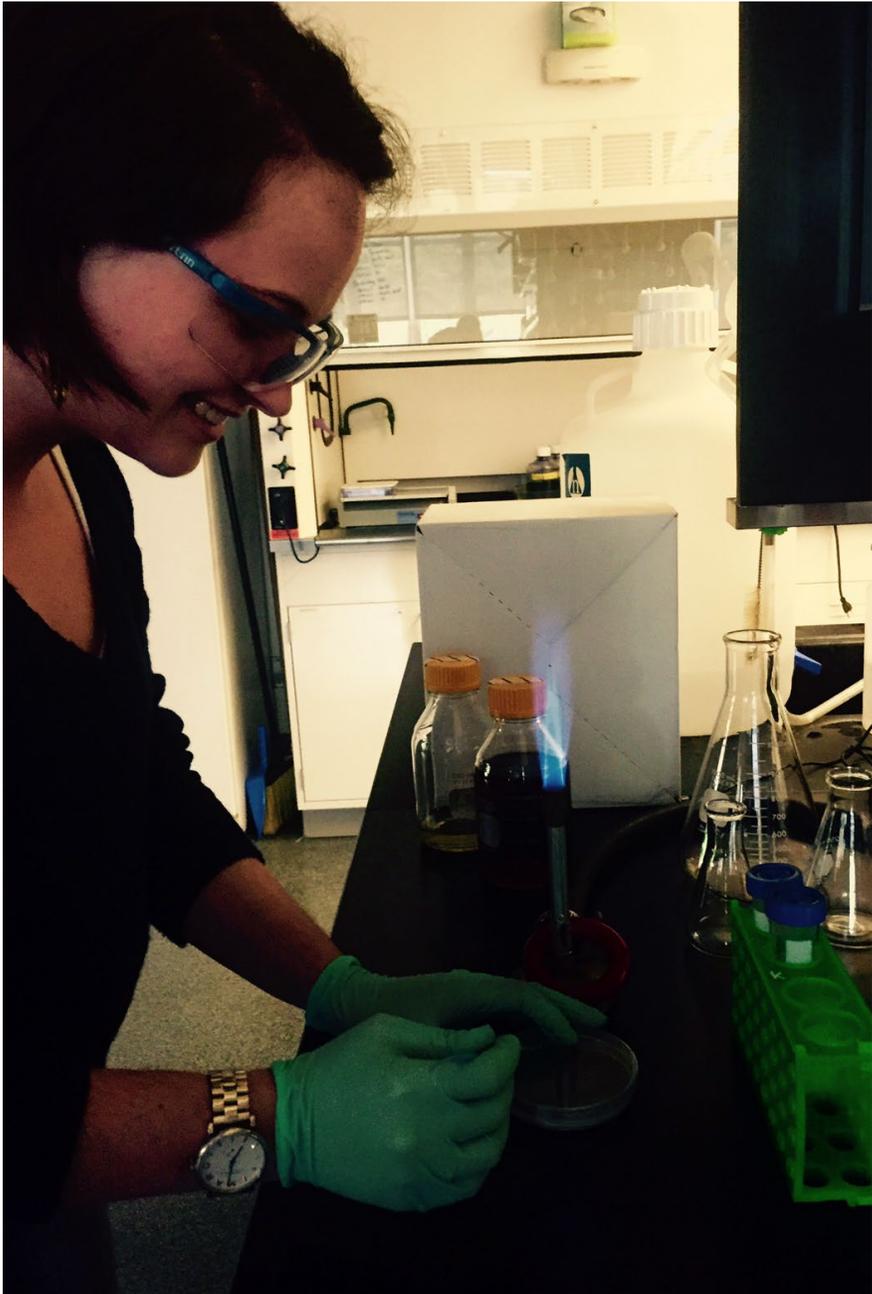
- Offered summer 2019 and 2020
- Science laboratory techniques
- Emphasis on water quality analysis
- Field sampling and use of instrumentation
- Visit government facilities to learn about operation and policies



Water quality research

- Design a sampling plan for a beach
- Measure spatial and temporal variability
- Use field and lab instrumentation to analyze various water quality parameters
- Gain leadership and research skills
- Research presentations to the community





2. Science Lab Technician Certificate

Science Lab Technician Certificate

- Introduction to laboratory techniques
- Biotechnology (DNA and protein tech)
- Environmental testing lab
- Industry-aligned certificate
 - Guided by government and industry
- Free tuition and \$1000 stipend





3. UHMC's Water Quality Lab

Building Capacity for Water Quality Monitoring

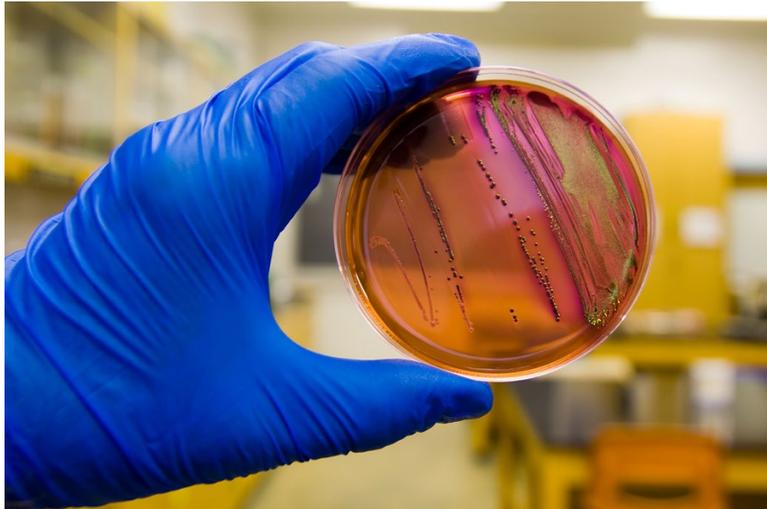
- Water testing regulations for farmers through Food Safety Modernization Act (FSMA)
- Citizen science groups monitoring coastal water quality
- NPDES permit holders
- No water testing lab on Maui





SEAL AA3 nutrient analyzer

- Automated air-segmented flow analyzer
- Dissolved inorganic nutrients (nitrate, nitrite, silicate, ammonium and phosphate)
- Total nitrogen and phosphorous
- First and only on Maui



Quanti-Tray System

- Test for presence/absence of coliforms, *E.coli*
- Provides bacterial counts

Outreach and Education

High-school

- Summer Bridge

College

- Water quality research

Community

- Introduction to Water Quality



Industry-aligned training

Science Lab Technician
Certificate



Water Quality Lab

Nutrients



E. coli



Thank you! Questions?