Broadening Engagement and DEIJA

Diane Stanitski
NOAA Pacific Marine Environmental Laboratory
and colleagues
NOAA Teacher at Sea Program

- Teacher at Sea has accepted teachers from all 50 states, American Samoa, Puerto Rico and Guam
- Teacher at Sea has sent over 800 teachers out on NOAA Research cruises
- Over 390,000 Students Reached
- Graduate Credits Awarded: 16
- Days at Sea: 9,300
- Research Hours: 112,000
- Active Alumni: 400+
- Media (articles, radio, TV, blog posts): 2,800+
- Teacher/Scientist Partnerships: 3,900
Commitment to Diversity, Equity, and Inclusion

NOAA’s Teacher at Sea Program is committed to improving the diversity, equity, and inclusion of our program to better serve all Americans.
Mission: To establish scientific partnerships between schools around the world to engage students in activities and communication about ocean climate science

Adopt a Drifter Web Page - http://www.adp.noaa.gov
A NOAA Program Supporting Teacher-Scientist-Student Interactions: Exploring Science in an Alaskan Yup’ik Village

Watch TAS video: https://www.youtube.com/watch?v=7TqDB15-YWc
Opportunities to train future generations

- **NOAA Ambassadors Program**
  - Encourages employees to participate in NOAA-related outreach, education, and service activities in their communities
  - Ambassador Toolkit
  - Sign up here: https://sites.google.com/noaa.gov/noaa-ambassadors-program/be-an-ambassador/sign-up

- **Mentor a Student**

- **Adopt-A-Float Programs**

- **NOAA Adopt a Drifter Program**

- **NOAA Teacher at Sea / NOAA Teacher in the Lab**

- Broaden our engagement by incorporating requirements about including early career scientists, which strengthens our succession planning efforts and seeks to be inclusive
Adopt-a-Float

- Southern Ocean Carbon and Climate Observations and Modeling (SOCCOM),
- Global Ocean Biogeochemistry Array (GO-BGC),
- PMEL Global Observations of Biogeochemistry and Ocean Physics (GOBOP)

Andrea Fassbender discusses the basics of Argo floats with a class at Ingraham High School (3/2/23).

SOCCOM Adopt-A-float Reference Table - date last updated: 12-Dec-2020 05:12

You can use your float’s Adopted Name, MBARI ID, or World Meteorological Organization (WMO) ID:
- Track your float’s location on the SOCCOM interactive map here (MBARI ID or WMO ID)
- Click here to find your float on the US Argo Global Data Assembly Center (GDAC) repository (WMO ID)
- To watch a float being deployed, click here to download a movie Trigger_MOV from soccom.princeton.edu
- Have fun!

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GO-BGC

Global Ocean Biogeochemistry Array

GOMO Community Workshop: July 27, 2023

GOBOP Global Observations of Biogeochemistry and Ocean Physics

Andrea Fassbender discusses the basics of Argo floats with a class at Ingraham High School (3/2/23).
Opportunities to support underserved/underrepresented

- NOAA Office of Education’s José E. Serrano Educational Partnership Program with Minority Serving Institutions (EPP/MSI)
  - Cooperative Science Centers (CSCs)
    - **NOAA Center for Coastal and Marine Ecosystems II** (CCME II - http://ccme.famu.edu/)
    - **NOAA Living Marine Resources Cooperative Science Center II** (LMRCSC II - https://www.umes.edu/lmrcsc/)
    - NOAA Center for Atmospheric Sciences & Meteorology II (NCAS-M II)
    - NOAA Center for Earth System Sciences & Remote Sensing Technologies II (CESSRST II)

- From 2003-2019, NOAA EPP/MSI supported:
  - 35% of African-Americans awarded PhD degrees in marine science

- Biannual NOAA EPP/MSI FORUM 2022
  - FL A&M University
Opportunities to support underserved/underrepresented

- Support/Sponsor Professional Societies – attend annual meeting, present, judge papers & posters, career panels
  - **American Indian Science and Engineering Society (AISES)**
    - October 19-21, 2023 - Spokane, WA
  - **Society for Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS)**
    - October 26-28, 2023 - Portland, OR
  - **National Society of Black Engineers (NSBE)**
    - March 20-24, 2024 - Atlanta, GA
  - **The Alaska Native Science & Engineering Program**
Opportunities to include Tribal/Indigenous, other community voices

- OAR Tribal Working Group
- Co-production of science
  - Involve communities from the start
- Relevant metrics of success
  - Ask our partners what successful outcomes look like to them
  - “Permission to define metrics of success differently”
  - Value different approaches to success
- Reevaluate lengths of funding cycles
- Is making it easier for NOAA scientists to engage in partnerships with tribes and other underserved/underrepresented communities a priority?
The Olympic Coast as a Sentinel: An Integrated Social-Ecological Regional Vulnerability Assessment to Ocean Acidification

Involves Indigenous coastal tribes with high ocean dependency: Four Coastal Treaty tribes “The tribes of the west coast of the U.S. are literally on the frontline of ocean acidification impacts, we have a responsibility to know so we can plan for an uncertain future.” Schumacker, QIN

Watch a film about the project here: https://youtu.be/ Ud6mg3w5fiQ
Extra slides
Broadening Engagement and DEIJA

- Where are we succeeding as a community? Where are the gaps in DEIJA we should focus on, both internally and externally?

- What opportunities exist for training future generations of ocean observers/scientists?

- Are we doing enough to reach and be responsive to the needs of underserved and underrepresented communities (both domestically and internationally)?

- Are we doing enough to include Tribal/Indigenous and other community voices in our work?

- What is working? What could we be doing better?
Cooperative Science Centers - NOAA Experiential Research and Training Opportunity (NERTO)

- NERTO is required for all CSC-award supported graduate students.
- Internship is minimum of 12 contiguous weeks at NOAA Facility guided by NOAA mentor and academic advisor.
- Students learn technical skills and understand organizational culture; apply academic training to real world problems and challenges; create networks for future academic and career success.
- Value to NOAA hosting office. Access to pool of new talent to advance mission critical research and operations.
The Alaska Native Science & Engineering Program

http://www.ansep.net/

Eighteen-year-old Jeremy Chung, Yup'ik from Bethel, Alaska, recently graduated high school and enrolled as an ANSEP Summer Bridge student. It was not a difficult decision for Jeremy to choose to spend his summer learning and getting real-world work experience – he has had his sights set on becoming a computer engineer for some time and knows this summer with ANSEP will give him a leg up. A first-generation college attendee at the University of Alaska Anchorage this fall, Jeremy says his computer engineering dreams are finally on the horizon, thanks to his drive for success as well as financial and academic support from ANSEP. We caught up with Jeremy this week to get to know this future Alaska engineer and learn what he's been up to this summer.
Support and encouragement from supervisors
who provide meaningful feedback, have confidence in you and act as an advocate.

Support and encouragement from peers
through sharing experiences and learning from and emboldening one another.

Mentoring schemes
which involve gaining guidance, skills and direction from mentor/s (including peer-, career development-, and/or personal mentor).

Improving academic or workplace culture
by providing a safe, supportive and collaborative environment for women leaders.

Adopting research strategies
which increase an individual's interdisciplinary skills and aid the design, delivery and impact of research.

Adopting specific characteristics and/or behaviours
which act as coping mechanisms, improve self-confidence, and/or aid career progression.

Informal networking
which connect women with internal and external networks of scientists (e.g. peer networking at conferences and meetings).

Implementing diversity, equity and equality policies
which aim to address inequity within academic institutions, amongst under-represented groups (e.g. women, minority or ethnic groups).

Creating a family-friendly environment
by implementing measures such as affordable childcare and adopting flexible work practices.

Putting women scientists forward for career opportunities
which aid career development and increase their visibility, including jobs, awards and presenting opportunities.