

Amanda Ziegler

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Education

2019 **Ph.D. Biological Oceanography** - University of Hawai‘i at Mānoa, Honolulu, HI
“Environmental Drivers of Benthic Community Structure and Function in Fjords of the West Antarctic Peninsula”
Advisor: Dr. Craig Smith
GPA: 3.76

Research interests include the use of benthic imagery to assess diversity and community structure, environmental drivers of biodiversity and biogeography, pelagic-benthic coupling, dispersal of benthic invertebrate larvae.

2012 **B.S. Marine Biology, Minor in Chemistry** - University of Rhode Island, Kingston, RI
GPA: 3.78 - Summa Cum Laude

Research Experience

2015 - 2019 **Graduate Research Assistant, FjordEco project**, University of Hawai‘i at Mānoa
Principle Investigator: Dr. Craig Smith

Dissertation research including Antarctic field work on three cruises aboard NSF polar research vessels, total of 108 days. Techniques learned include image analysis, statistical modeling, Lagrangian particle tracking, high-performance computing. Additional responsibilities included project outreach through the creation and maintenance of a project website and blog (<http://www.fjordeco.wordpress.com>) which was viewed across 68 countries and by more than 10,000 people as well as with student visits to the lab at the University of Hawai‘i.

2014 - 2015 **Graduate Research Assistant, ABYSSLINE Project**, University of Hawai‘i at Mānoa
Principle Investigator: Dr. Craig Smith

Characterized and analyzed spatial patterns in benthic community composition from ROV footage of the manganese nodule exploration claim area for the United Kingdom within the Clarion-Clipperton Fracture Zone (Pacific Ocean). This work was conducted as part of the baseline studies required by the International Seabed Authority and resulted in the compilation and publication of a megafaunal atlas for the region as well as a scientific publication from the first year of the study.

Teaching Experience

2019 **Guest lecturer, Mauka to Makai Bridge Program (deep-sea biology)**
University of Hawai‘i at Mānoa

2018 - 2019 **Guest lecturer, OCN 628: Benthic Biological Oceanography (Graduate)**
University of Hawai‘i at Mānoa

2012-13, 2019 **Graduate Teaching Assistant, OCN 201: Introduction to Oceanography Laboratory**
University of Hawai‘i at Mānoa

Research Cruise Experience

2018 **R/V Araon** - Korea Polar Research Institute, Mar. 27 - May 6 (40 days)

2017 **ARSV Laurence M. Gould** - University of Hawai‘i at Mānoa, Feb. 14 - Mar. 21(35 days)

- 2016 **RVIB Nathaniel B. Palmer** - University of Hawai‘i at Mānoa, Mar. 28 - Apr. 30 (33 days)
 2015 **ARSV Laurence M. Gould** - University of Hawai‘i at Mānoa, Nov. 18 - Dec. 28 (40 days)
 2015 **R/V Thomas G. Thompson** - University of Hawai‘i at Mānoa, Feb. 12 - Mar. 25 (41 days)
 2014 **R/V Oceanus** - University of Hawai‘i at Mānoa, Jun. 21 - Jul. 5 (15 days)
 2013 **R/V Oceanus** - University of Hawai‘i at Mānoa, Apr. 3 - 15 (13 days)

Publications

- 2017 **Ziegler, A.F.**, Smith, C.R., Edwards, K.F., and Vernet, M. 2017. Glacial dropstones: islands enhancing seafloor species richness in West Antarctic Peninsula fjords. *Marine Ecology Progress Series*, 583, pp. 1-14. <https://doi.org/10.3354/meps12363> (Feature article)
- 2017 Amon, D. J., **Ziegler, A. F.**, Kremenetskaia, A., Mah, C. L., Mooi, R., O’Hara, T., ... Smith, C. R. (2017). Megafauna of the UKSRL exploration contract area and eastern Clarion-Clipperton Zone in the Pacific Ocean: Echinodermata. *Biodiversity Data Journal*, (5), e11794. Advance online publication. <http://doi.org/10.3897/BDJ.5.e11794>
- 2017 Amon, D.J., **Ziegler, A.F.**, Drazen, J.C., Grischenko, A.V., Leitner, A.B., Lindsay, D.J... & Smith, C.R. (2017). Megafauna of the UKSRL exploration contract area and eastern Clarion-Clipperton Zone in the Pacific Ocean: Annelida, Arthropoda, Bryozoa, Chordata, Ctenophora, Mollusca. *Biodiversity Data Journal*, (5), e14598. <http://doi.org/10.3897/BDJ.5.e14598>
- 2016 Amon, D. J., **Ziegler, A. F.**, Dahlgren, T. G., Glover, A. G., Goineau, A., Gooday, A. J., ... & Smith, C. R. (2016). Insights into the abundance and diversity of abyssal megafauna in a polymetallic-nodule region in the eastern Clarion-Clipperton Zone. *Scientific Reports*, 6.

Oral Presentations

- 2018 **Ziegler, A.F.**, Lundesgaard, Ø., Cape, M., and Smith, C.R. Intense seafloor pulses and rapid processing of phytodetritus in a glaciomarine fjord, Andvord Bay (Antarctica). Scientific Committee on Antarctic Research Open Science Conference. Davos, Switzerland. June 19-23
- 2015 **Ziegler, A.F.** and Smith, C.R. The influence of ice-rafted debris on megabenthic diversity and community structure in fjords of the West Antarctic Peninsula. Deep Sea Biology Society Symposium. Aveiro, Portugal. August 31-September 4
- 2014 **Ziegler, A.F.** and Smith, C.R. The influence of ice-rafted debris on megabenthic diversity and community structure in West Antarctic Peninsula (WAP) fjords. Geological Society of America Annual Meeting. Vancouver, Canada. October 20

Poster Presentations

- 2018 **Ziegler, A.**, Lundesgaard, Ø., Cape, M., Smith, C.R. Pelagic-benthic coupling in a glaciomarine fjord, Andvord Bay (Antarctica). Deep Sea Biology Symposium. Monterrey, CA, USA. September 9-14.
- 2018 **Ziegler, A.**, Hahn-Woernle, L., Powell, B., and Smith, C.R. Dispersal of Fjord Megabenthos in Andvord Bay: A Modeling Approach. Scientific Committee on Antarctic Research Open Science Conference. Davos, Switzerland. June 19-23
- 2018 **Ziegler, A.**, Smith, C.R., Cape, M. Intense seafloor pulses and rapid processing of phytodetritus in a glaciomarine fjord, Andvord Bay (Antarctica). Ocean Sciences Meeting. Portland, Oregon, USA. February 12-16

- 2016 **Ziegler, A.,** Smith, C.R., Grange, L.J., and Edwards, K.F. Glacial dropstones: islands enhancing habitat diversity and species richness in West Antarctic Peninsula fjords. Scientific Committee on Antarctic Research, Open Science Conference. Kuala Lumpur, Malaysia. August 20-30
- 2015 **Ziegler, A.,** Amon, D.J., Smith, C.R. A qualitative assessment of megafaunal diversity and biogeography of the UK-1 mining claim area within the CCZ. Deep Sea Biology Society Symposium. Aveiro, Portugal. August 31-September 4

Outreach

- 2018 - **Connecting our Keiki to Their Deep-Sea Backyard**, Kaua'i and O'ahu, Hawai'i
- ◇ Visited with ~ 300 high schoolers at 3 high schools on Kaua'i
 - ◇ Awarded an OpenROV Trident for continued outreach and education in Hawai'i (<https://openexplorer.nationalgeographic.com/expedition/deepseatech>)
- 2016 - 19 **Elementary, Intermediate and High School Student Visits**
- ◇ Kamehameha Schools, 48 students
 - ◇ Nanakuli and Waianae High Schools in Mānoa Educational Talent Search Program, 30 students
 - ◇ Nanakuli High School, 20 students
 - ◇ Lana'i Elementary and High School, 37 students
 - ◇ Wilson Elementary School, 6 Special-Education students (grade 5)
- 2015-17 **Expanding Your Horizons**, University of Hawai'i at Mānoa
- 2013-19 **SOEST Open House**, University of Hawai'i at Mānoa

Workshops and Other

- 2018 **Evaluating the nature of midwater mining plumes and their potential effects on midwater ecosystems**, August 27 - 30
University of Hawai'i at Mānoa (Dr. Jeffery Drazen, Dr. Craig Smith, and Kristina Gjerde)
- 2014 **Deep-Sea Biodiversity, Connectivity and Ecosystem Function**, July 20 - August 22
Friday Harbor Laboratories, University of Washington
- ◇ Professors: Dr. Craig Smith and Dr. Kenneth Halanych
- 2013 **Workshop to Standardize Megafaunal Taxonomy for Exploration Contract Areas in the Clarion-Clipperton Fracture Zone**, June 9 - 16
Deutsches Zentrum fur Marine Biodiversitätsforschung, Wilhelmshaven, Germany

Service

- 2017 - **Reviewer**, Marine Ecology Progress Series, Progress in Oceanography
- 2016 - **SOEST TGIF Mini-Grant Coordinator**, University of Hawai'i at Mānoa
- 2013 - **Student Representative, Dept. of Oceanography Committees**, University of Hawai'i at Mānoa (Graduate Student Organization Rep., Awards committee, Bio. Oce. division rep.)

Awards and Grants

- 2018-19 STAR Achievement Scholarship - University of Hawai'i at Mānoa (\$1875, \$1000)
- 2018 National Weather Service Outreach Award - University of Hawai'i at Mānoa (~\$1200)
- 2016-18 SCAR OSC Travel Grant Award (\$2250, \$2342.67)
- 2017 Jhamandas Watumull Fund - University of Hawai'i at Mānoa (\$3000)
- 2014-16 University of Hawai'i at Mānoa GSO Grants (\$464.28, \$574.45)