

Zachary Quinlan
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Education

B.S., Marine Biology, University of Hawai'i at Mānoa, Honolulu, HI, 2017

Awards and Funding:

FLUORESCENCE OF DISSOLVED ORGANIC MATTER OF CORAL EXUDATES
University of Hawai'i Undergraduate Research Opportunity Program Grant
Fall 2016- Spring 2017, \$3500

CORAL PRODUCES AROMATIC PROTEINACEOUS DISSOLVED ORGANIC MATTER
University of Hawai'i Undergraduate Research Opportunity Program Grant
Fall 2016- Spring 2017, \$1500

MICROBIAL COMMUNITY DIVERSITY OF CORAL IN KANEOHE BAY IN COMPARISON
TO ORGANIC EXUDATES
University of Hawai'i Undergraduate Research Opportunity Program Grant
Spring 2017, \$5000

Academic Employment:

San Diego State University Foundation
August 2018-Present

Job Title: Graduate Teaching Assistant
Principle Investigator: Dr. Linda Wegley Kelly

Center for Microbial Oceanography: Research and Education
University of Hawai'i at Manoa, Honolulu, HI
Dec. 2015 - Dec. 2017

Job Title: Undergraduate Research Assistant
Principal Investigator: Dr. Craig E. Nelson; craig.nelson@hawaii.edu

Duties: Principal lab manager; oversight for fluorescent dissolved organic matter analysis, dissolved organic matter extraction, data processing (Excel, matlab, JMP), manuscript preparation, flow cytometry, assisted with laboratory and field experiments on corals, field sampling in coastal waters, lab processing of nucleic acid samples and programming in matlab and python.

Peer-Reviewed Manuscripts:

Quinlan, Z.; Remple, K.; Fox, M.; Silbiger, N.; Putnam, H.; Sevilla, J.; Lager, C.; Donahue, M.; Oliver, T.; Nelson, C. Fluorescent organic exudates on corals and algae in tropical reefs are compositionally distinct and increase with nutrient enrichment. *Limnology and Oceanography Letters*, 2018.

Silbiger, N. J.; Remple, K.; Fox, M. D.; Lager, C.; Nelson, C.; Putnam, H. M.; Sevilla, J.; **Quinlan, Z.;** Donahue, M. J.; Scaling up from organisms to ecosystem: Individual and combined community metabolic responses of four distinct benthic assemblages to nutrient addition. Accepted to *ProcB*.

Wegley Kelly, L., Haas, A.F.; Nelson, C.E.; Naliboff, D.; Calhoun, S.; Carlson C.A.; Edwards, R.A.; Fox M.D.; Hatay, M.; Johnson, M.; Wei Lim, Y.; Macherla, S.; **Quinlan, Z.A.;** Silva, G.; Vermeij, M.J.A.; Sandin, S.A.; Smith, J.E.; Rohwer, F.A. Largescale population and metabolic shifts in day-night microbial communities on coral reefs. In review *Nature communications*.
*Manuscript draft available upon request.

Quinlan, Z.A.; Ritson-Williams, R.; Carroll, B.; Carlson, C.; Nelson, C.E. *Hydrolithon reinboldii* and *Porolithon onkodes* produces characteristically different dissolved organic matter enriching defined bacterial communities. In prep. *Manuscript draft available upon request

Fox, M.D.; Oliver, T.A.; **Quinlan, Z.;** Remple, K.; Putnam, H.M.; Smith, J.E.; Nelson, C.E. Contrasting acclimatory responses to inorganic nutrient enrichment in two Hawaiian coral species. In prep. Target journal: *Proceedings of the Royal Society - Biology*.

Nelson, C. E.; Fox, M. D.; Oliver, T.A.; Remple, K. L.; **Quinlan, Z. A.;** Donahue, M.J.; Putnam, H.M.; Coral Microbiome response to inorganic nutrient enrichment. In prep.

Remple, K.; Donahue, M.; Fox, M.; Lager, C.; Putnam, H.; **Quinlan, Z.;** Sevilla, J.; Silbiger, N.; Nelson, C.; Nutrient stimulation of exudates from dominant coral reef producers and impacts on microbial biofilms. In prep.

Donahue, M.; Silbiger, J.; Remple, K.; Fox, M.; **Quinlan, Z.;** Sevilla, J.; Putnam, H.; Nelson, C. From organisms to ecosystem processes: Additive and non-additive scaling in coral reef responses to nutrient addition. In prep.

Goldberg; Nelson; Dulai; Donahue; Remple; Richardson; la Valle; Fackrell; **Quinlan;** Thomas. Nutrient-rich submarine groundwater discharge drives unique patterns in fDOM and plankton biomass at a coral reef in Maunalua Bay, HI. In prep.

Conferences and presentations:

University of Hawai'i Undergraduate Showcase. 2017. Honolulu, HI. Presentation.

American Society of Limnology and Oceanography Meeting. 2017. Honolulu, Hawai'i. <https://www.sgmeet.com/aslo/honolulu2017/viewabstract.asp?abstractid=29199>. Poster.

University of Hawai'i Undergraduate Showcase. 2016. Honolulu, HI. Presentation.

100th Anniversary Western Society of Naturalists Meeting. 2016. Monterey, CA. Presentation.

13TH International Coral Reef Symposium. 2016. Honolulu, Hawai'i. <https://www.sgmeet.com/icrs2016/viewabstract.asp?AbstractID=29769>. Poster.

Outreach and Associations:

Pre-K-12 Outreach: Sunshine House (pre-K), Louisville Middle School, Boulder High School. Class workshops and lectures about marine sciences, natural product chemistry and scuba diving.

Member of: American Society for Limnology & Oceanography (ASLO), International Society for Reef Studies (ISRS), Western Society of Naturalists (WSN).

References:

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Adjunct Assistant Research Professor
San Diego State University
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Dr. Craig E. Nelson
Assistant Researcher
Center for Microbial Oceanography
University of Hawaii
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Dr. Megan Donahue
Associate Researcher
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Dr. Andreas Haas
Assistant Researcher

Department of Marine Microbiology and Biogeochemistry
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Dr. Tom Oliver
Ocean Acidification Program Manager, Team Lead
National Oceanic and Atmospheric Administration
1845 Wasp Boulevard, Building 176
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