

EDUCATION

Ph.D. Oceanography	University of Hawai‘i at Mānoa	2016
M.S. Oceanography	University of Hawai‘i at Mānoa	2012
B.S. Biology	University of Wisconsin Madison	2007

EXPERIENCE

<i>Principal Investigator</i> , Adjunct Asst. Prof., Research Fellow, San Francisco State University, Estuary & Ocean Science Center	Sept 2018-Present
<i>Lecturer</i> , University of California Berkeley	June 2022-Present
<i>Lab Manager</i> , GTAC Gene Lab, San Francisco State University, Estuary & Ocean Science Center	2021-Present
<i>Postdoctoral Research Fellow</i> , San Francisco State University, Estuary & Ocean Science Center	2017-2019
<i>Postdoctoral Researcher</i> , Hawaii Pacific University	2016
<i>Graduate research assistant</i> , University of Hawai‘i at Mānoa	2013-2016
<i>Graduate research assistant</i> , University of Hawai‘i at Mānoa	2010-2012

SUMMARY OF CURRENT RESEARCH PROJECTS:

- Zooplankton recruitment dynamics in high latitude ecosystems
- From microbes to zooplankton, what defines a beneficial wetland?
- Manta ray distribution applying environmental DNA
- Filling gaps in knowledge of zooplankton prey of listed smelt species
- Seasonal transitions in the food webs supporting delta and longfin smelt
- Resolving contradictions in foodweb support for native pelagic fishes
- Sacramento River nutrient change study: Using changes in nutrient loading and transport to test hypotheses about potential nutrient management actions
- Revealing the invisible contributors to diets of larval and juvenile fishes in the San Francisco Estuary
- Targeted assays for copepod grazing studies

PUBLISHED MANUSCRIPTS:

Indicates mentored student

12 **Jungbluth, M.J.***, Hanson, K.M.*, Lenz, P.H., Robinson, E., and Goetze, E. (2022). A qPCR-based approach for estimating species-specific biomass of metazoan plankton. *Limnology and Oceanography: Methods*. 20(6), 305-319. *co-first author

11 **Jungbluth, M.J.**, Lee, C.#, Patel, C.#, Ignoffo, T., and Kimmerer, W. (2022). Production of the copepod *Pseudodiaptomus forbesi* is not enhanced by ingestion of the diatom *Aulacoseira granulata* during a bloom. *Estuaries and Coasts*. 44(4),

1083-1099. doi: 10.1007/s12237-020-00843-9. Online Access:
<https://rdcu.be/b8IUk>

- 10 **Jungbluth, M.J.**, Burns, J.[#], Grimaldo, L., Katla, A.[#], and Kimmerer, W. (2021) Feeding habits and novel prey of larval fishes in the northern San Francisco Estuary. *Environmental DNA*. 3(6), 1059-1080. doi: [10.1002/edn3.226](https://doi.org/10.1002/edn3.226)
- 9 Kersten, O., Vetter, E.W., **Jungbluth, M.J.**, Smith, C. R., & Goetze, E. (2019). Larval assemblages over the abyssal plain in the Pacific are highly diverse and spatially patchy. *PeerJ*, 36. doi: 10.7717/peerj.7691
- 8 Millette, N.C., Grosse, J., Johnson, W.M., **Jungbluth, M.J.**, and Suter, E. (2018). Hidden in plain sight: The importance of cryptic interactions in marine plankton. *Limnology and Oceanography Letters*. 3, 341-356. doi: 10.1002/lol2.10084 (Open Access)
- 7 Selph, K.E., Goetze, E., **Jungbluth, M.J.**, Lenz, P.H., and Kolker, G. (2018). Microbial food web connections and rates in a subtropical embayment. *Marine Ecology Progress Series*. 590, 19-34. doi: 10.3354/meps12432
- 6 **Jungbluth, M.J.**, Selph, K.E., Lenz, P.H., & Goetze, E. (2017). Species-specific grazing and significant trophic impacts by two species of copepod nauplii, *Parvocalanus crassirostris* and *Bestiolina similis*. *Marine Ecology Progress Series*, 572, 57-76. doi:10.3354/meps12139
- 5 **Jungbluth, M.J.**, Selph, K.E., Lenz, P.H., & Goetze, E. (2017). Incubation duration effects on copepod naupliar grazing estimates. *Journal of Experimental Marine Biology and Ecology*, 494, 54-62. doi: 10.1016/j.jembe.2017.05.005
- Jungbluth, M.J.** (2016). Copepod nauplii and their roles in marine planktonic environments. (PhD Dissertation), Oceanography, UH Mānoa, Honolulu, Hawaii.
- 4 Roncalli, V., **Jungbluth, M.J.**, Lenz, P.H., (2016). Glutathione S-Transferase regulation in *Calanus finmarchicus* feeding on the toxic dinoflagellate *Alexandrium fundyense*. *PLoS ONE* 11, e0159563.
- 3 Goetze, E., & **Jungbluth, M.J.** (2013). Acetone preservation for zooplankton molecular studies. *Journal of Plankton Research*, 35(5), 972-981. doi: 10.1093/plankt/fbt035
- 2 **Jungbluth, M.J.**, Goetze, E., & Lenz, P.H. (2013). Measuring copepod naupliar abundance in a subtropical bay using quantitative PCR. *Marine Biology*, 160, 3125-3141. doi: 10.1007/s00227-013-2300-y
- 1 **Jungbluth, M.J.**, & Lenz, P.H. (2013). Copepod diversity in a subtropical bay based on a fragment of the mitochondrial COI gene. *Journal of Plankton Research*, 35(3), 630-643. doi: 10.1093/plankt/fbt015
- Jungbluth, M.J.** (2012). Development and demonstration of a quantitative PCR based method to enumerate copepod nauplii in field samples. (MS Thesis), Oceanography, UH Manoa, Honolulu, Hawaii.

MANUSCRIPTS in PREPARATION or IN REVIEW:

Jungbluth, M.J., Ignoffo, T., Slaughter, A., and Kimmerer, W. *What really defines food for a non-native estuarine copepod? In Prep.*

Jungbluth, M.J., Feyrer, F., Grimaldo, L., Slaughter, A., and Kimmerer, W. *Molecular insights into prey important to the diets of native fishes of the San Francisco Estuary. In Prep.*

Jungbluth, M.J., Selph, K., Lenz, P.H., Goetze, E. *Storm impacts on copepod populations over ontogeny in a subtropical coastal ecosystem. In Prep.*

AWARDS

Proposals Awarded

As PI:

From Microbes to Zooplankton What Defines a Beneficial Wetland? (Delta Science Awards, **2021**). Amount Awarded: \$706,463.

As Co-PI:

Collaborative Research: Zooplankton restarts in a high-latitude marine ecosystem: species-specific recruitment and development in early spring. (National Science Foundation, **2022**). PI: Dr. Petra Lenz. Amount Awarded: \$350,839.

Seasonal transitions in the food webs supporting delta and longfin smelt. (State Water Contractors, **2021**). PI: Dr. Wim Kimmerer. Amount Awarded: \$426,221.

Filling gaps in knowledge of zooplankton prey of listed smelt species. (California Department of Fish and Wildlife, Proposition 1, **2021**). PI: Dr. Wim Kimmerer. Amount Awarded: \$288,682.

As Co-I:

Testing and quantifying a conceptual model for the response of longfin smelt to outflow. (California State Water Contractors, **2023**). PI: Dr. Jason Hassrick, Dr. Wim Kimmerer. Amount Awarded: \$2,268,406.

As Research Associate:

High-resolution characterization of lower food web resources connected to important nursery habitats in restored wetlands. (Delta Science Proposal Solicitation, **2018**). PI: Dr. Wim Kimmerer. Amount awarded: \$715,000.

Other Proposals Applied for as PI

Problematic parasites and carnivorous copepod impacts on native estuarine fishes. (California Department of Fish and Wildlife, Proposition 1 RFP 2021). \$860,000. Not awarded.

Enhanced zooplankton monitoring along coastal north-central California. (Sea Grant New Faculty Grant Program, 2020). \$104,000. Not awarded.

High-resolution characterization of lower food web resources connected to important nursery habitats in restored wetlands (Delta Science Proposal Solicitation, 2018). \$995,000. Not awarded.

Other Awards

To Self (Selected)

Equitable Collaboration in STEM Award, to support and enhance collaboration across female researchers at SF State, NSF-based, \$1,000.

Collaboratively wrote and was awarded a **Delta Science Postdoctoral Research Fellowship**, sponsored by the California Sea Grant Program, and funded by SFWCA. PI: Dr. Wim Kimmerer. Award amount: \$219,272 over two years.

To Mentored Students

ARCS 2023 Scholarship. ARCS Foundation, \$11,600 to Graduate Student Anthony Donahue

Dr. Kenneth Coale 2023 Research Award, CSU COAST, \$4,000 to Graduate Student Anthony Donahue

Scientific Illustration Grant, Maxwell/Hanrahan Foundation \$3,333 to Graduate Student Anthony Donahue

COAST 2022 Research Award, CSU COAST, \$3,000 to Graduate Student Erick Ortiz

ARCS 2021 Scholarship. ARCS Foundation, \$10,000 to Graduate Student Amy Wong

COAST 2021 Research Award, CSU COAST, \$3,000 to Graduate Student Amy Wong

COAST 2021 Research Award, CSU COAST, \$3,000 to Mentee Graduate Student Lindsey Metz

Sea Grant 2020 State Fellowship, CA Sea Grant, to Mentee Graduate Student Cheryl Patel

PROFESSIONAL SERVICE

Anti-racism Committee Member: SFSU College of Science and Engineering effort to develop and implement strategies to become an anti-racist community. (2023-2024)

Scientific Journal Reviewer: Frontiers in Marine Science, Nature Scientific Reports, Marine Biology, Marine Ecology Progress Series, Journal of Plankton Research, PeerJ, Bioinvasions Records, Crustaceana, San Francisco Estuary and Watershed Science

Contributing Member: Interagency Ecological Program: Zooplankton Project Work Team, San Francisco Bay-Delta region

Contributing Member: Interagency Ecological Program: Genetics Project Work Team, San Francisco Bay-Delta region

Contributing Member: Interagency Ecological Program: Estuarine Ecology Team, San Francisco Bay-Delta region

Contributing Member: California Molecular Methods Work Group

Faculty Committees at SFSU: OPC Roadshow Organizer for EOS Center Science Networking Event (2020), Student Scholarship Committee (2019, 2020)

TEACHING

Lecturer, EPS N82 Introduction to Oceanography Summer 2022 -
University of California Berkeley Present

Guest Lecturer, MSCI 709 Foundations in Global Change in 2019 - Present
Urbanized Coasts and Estuaries
San Francisco State University

Chief Scientist, REU Teaching Research Cruise, R/V Questuary 2019, 2022, 2023
San Francisco State University

Lead Teaching Assistant, Oceanography 201 -Science of the Sea, Fall semester, 2015
Lecture and Lab Course
University of Hawai'i at Mānoa

Teaching Assistant, Oceanography 201 -Science of the Sea, Spring semester,
Lecture and Lab Course 2015
University of Hawai'i at Mānoa

ADVISING and MENTORING:

Research mentor – NSF Research Experiences for Undergraduates at San Francisco State University: Biological Research in Ecological and Evolutionary Developmental Biology Program. Summer 2023
REU Scholar: Adrianna Albert

Primary thesis advisor, IMES program SFSU – graduate student project studying foodweb benefits provided by wetlands to native larval fishes. 2022-present
Student: Anthony Donahue

Primary thesis advisor, IMES program SFSU – graduate student project studying zooplankton dietary DNA and response to spring bloom in Gulf of Alaska. 2022-present
Student: Jennifer Staat

Research mentor – NSF Research Experiences for Undergraduates at San Francisco State University: Biological Research in Ecological and Evolutionary Developmental Biology Program. Summer 2022
REU Scholar: Paris Kellogg

Thesis committee member – graduate student project studying reef manta ray environmental DNA. 2022-present
Student: Grace Tuthill

Primary thesis advisor, IMES program SFSU – graduate student project studying diversity and distribution of the microbes to zooplankton in restoring wetlands an estuary. 2021-present
Student: Erick Ortiz

Thesis committee member – graduate student project studying relationship between California sea lion's diet and ocean conditions on the Farallon Islands. 2021-present
Student: Maria Salgado

Thesis committee member and mentor - graduate student project comparing feeding by two dominant copepods during transition periods in abundance. 2020-present
Student: Amy Wong

Thesis committee member - graduate student project measuring microbial assemblages associated with toxic algae. 2019-present
Student: Lindsey Metz

<i>Primary thesis advisor</i> - graduate student project designing assays to measure feeding by <i>Pseudodiaptomus forbesi</i> on multiple prey. Student: Cheryl Patel	2018-present
<i>Research mentor</i> – NSF Research Experiences for Undergraduates at San Francisco State University: Biological Research in Ecological and Evolutionary Developmental Biology. REU Scholar: Aspen Katla	Summer 2019
<i>Research mentor</i> – Stem Teacher and Researcher (STAR) program, San Francisco State University. STAR Fellow: De’asha Moore	Summer 2019
<i>Mentor</i> graduate research assistant measuring grazing rates by <i>Pseudodiaptomus forbesi</i> on the diatom, <i>Aulacoseira</i> sp. Student: Calvin Lee	2017-2018
<i>Mentor</i> , high school student. Intern: Chandler Gorman	2017
<i>Mentor</i> undergraduate student lab assistant. Student: Michelle Uchida	2015, 2016
<i>Mentor</i> undergraduate student through a senior thesis project (C-MORE Scholar). Student: John Lee	2012
<i>Mentor and Teacher</i> , UH Manoa undergraduate volunteers in the field (numerous)	2011-2015

INVITED PRESENTATIONS:

<i>Cyclopoid diversity and distribution in the San Francisco Estuary from metabarcoding.</i> Zoopfest 2022: Interagency Ecological Program. Virtual. CA.	Aug 2022
<i>Revealing the hidden diversity, abundance and feeding interactions at the base of aquatic food webs.</i> Rosenberg Institute Seminar, Estuary and Ocean Science Center. San Francisco State University, San Francisco, CA	May 2022
<i>Revealing the hidden diversity, abundance and feeding interactions at the base of aquatic food webs.</i> Moss Landing Marine Labs, Symposium Series	Apr 2022
<i>Feeding and Predation in the Zooplankton.</i> Zooplankton Ecology Symposium. Virtual. CA	Oct 2020
<i>Larval longfin smelt diets assessed with morphological ID and DNA sequencing of guts.</i> Longfin Smelt Symposium. Sacramento, CA	Nov 2019
<i>Molecular insights into aquatic foodweb ecology in the San Francisco Estuary and beyond.</i> Rosenberg Institute Seminar, Estuary and Ocean Science Center. San Francisco State University, San Francisco, CA	Apr 2019

- Composition of larval fish diets: Comparing high-throughput DNA sequencing with morphological methods.* Interagency Ecological Program Workshop, Folsom, CA Mar 2019
- Studies of marine and estuarine zooplankton ecology using molecular methods.* Moss Landing Marine Labs, Moss Landing, CA Sept 2017
- Are plankton life history stages important to marine food webs?* Seminar, School of Freshwater Sciences, University of Wisconsin Milwaukee, WI. Sept 2015

SELECTED CONFERENCE and SYMPOSIUM PRESENTATIONS:

Talks

- Jungbluth, M.** *From microbes to zooplankton: Characterizing variation in foodweb resources in a major temperate estuary.* Ocean Sciences Meeting, Virtual. Feb 2022
- Jungbluth, M.,** Slaughter, A., Ignoffo, T., and Kimmerer, W. *Insights into foodweb connections between anadromous forage fishes of the San Francisco Estuary through dietary DNA.* CERF Conference, Virtual, CA. Nov 2021
- Jungbluth, M.** and Kimmerer W. *Feeding habits and novel prey of larval fishes in the San Francisco Estuary, revealed by gut DNA metabarcoding.* Ocean Sciences Meeting, San Diego, CA Feb 2020
- Jungbluth, M.** *Molecular insights into aquatic foodweb ecology in the San Francisco Estuary and beyond.* Rosenberg Institute Seminar, Estuary and Ocean Science Center. San Francisco State University, San Francisco, CA Apr 2019
- Jungbluth, M.** *Molecular insights into aquatic food web ecology in the San Francisco Estuary and beyond.* Colloquium in Ecology, Evolution and Conservation Biology. San Francisco State University, San Francisco, CA Feb 2019
- Jungbluth, M.** and Kimmerer, W. *Habitat variation in the diets of young longfin smelt, enhanced with DNA metabarcoding.* Bay Delta Science Conference. Sacramento, CA Sept 2018
- Jungbluth, M.,** Selph, K., Lenz, P.H., and Goetze, E. *Copepod nauplii in subtropical environments.* Stazione Zoological di Napoli. Naples, Italy May 2016
- Jungbluth, M.,** Selph, K., Lenz, P.H., and Goetze, E. *Species-specific grazing impacts of copepod nauplii.* ICES/PICES 6th Zooplankton Production Symposium, Bergen, Norway May 2016
- Jungbluth, M.,** Lenz, P.H., and Goetze, E. *Naupliar responses to ecosystem perturbations in a subtropical embayment.* Ocean Sciences Meeting, Honolulu, HI Feb 2014
- Jungbluth, M.,** Goetze, E., and Lenz, P. H. *A new qPCR-based approach to studying copepod nauplii in the field.* ASLO Aquatic Sciences Meeting, New Orleans, LA Feb 2013

Jungbluth, M. *Toward the use of quantitative real-time PCR as a method to study copepod population dynamics.* UH Manoa 35th Annual Tester Symposium, Honolulu, HI Mar 2012

Posters

*Indicates mentored student presentation

Ortiz, E.*, Slaughter, A., Hassrick, J., Kimmerer, W., and **Jungbluth, M.** *Using molecular techniques to characterize the diversity of microorganisms in the wetlands of the San Francisco Estuary.* IEP Workshop, Sacramento, CA. Mar 2023

Ignoffo, T., Slaughter, A., **Jungbluth, M.**, and Kimmerer, W. *Using image analysis of zooplankton to fill gaps in food webs of fishes.* IEP Workshop, Sacramento, CA. Mar 2023

Slaughter, A., Ignoffo, T., **Jungbluth, M.**, and Kimmerer, W. *How do food supplements affect the growth and reproductive rates of calanoid copepods in the upper estuary during seasonal transitions?* IEP Workshop, Sacramento, CA. Mar 2023

Ortiz, E.*, and **Jungbluth, M.** *Characterizing the diversity and foodweb support provided by microorganisms to native fishes in restored wetlands.* Ocean Sciences Meeting, Virtual. Feb 2022

Jungbluth, M. and Kimmerer, W. *Insights into dietary DNA of juvenile longfin smelt and northern anchovy.* Interagency Ecological Program/BDSC Workshop, **Virtual**, CA. April 2021

Jungbluth, M. Burns, J., Grimaldo, L., Katla, A., and Kimmerer, W. *Feeding habits and novel prey of larval fishes in the northern San Francisco Estuary.* Interagency Ecological Program Workshop, **Virtual**, CA. Sept 2020

Katla, A.* and **Jungbluth, M.** *DNA barcoding of San Francisco Estuary Zooplankton.* Ocean Sciences Meeting, San Diego, CA. Feb 2020

Jungbluth, M. Jungbluth, S, and Kimmerer W. *A targeted genetic database of local fauna for analysis of aquatic community metabarcode data.* Digital Data in Biodiversity Conference, New Haven, CT. June 2019

Patel, C.*, Lee, C., Ignoffo, T., **Jungbluth, M.** and Kimmerer, W. *Investigating copepod consumption of phytoplankton in San Francisco Estuary using qPCR.* Ocean Sciences Meeting, Puerto Rico. Feb 2019

Jungbluth, M. and Kimmerer, W. *DNA metabarcoding to reveal the invisible prey in the diet of longfin smelt larvae.* Interagency Ecological Program Workshop. Folsom, CA. Mar 2018

Jungbluth, M. and Kimmerer, W. *Revealing the breadth of prey in the diets of a threatened fish in the San Francisco Estuary.* Ocean Sciences Meeting. Portland, OR. Feb 2018

- Jungbluth, M.** and Kimmerer, W. *Revealing the breadth of prey in young longfin smelt diets across the San Francisco Estuary.* Gordon Research Conference, Predator-Prey Interactions. Ventura, CA Jan 2018
- Jungbluth, M.** *Revealing the invisible contributors to the diets of young longfin smelt in the San Francisco Estuary.* State of the Estuary Conference. Oakland, CA Oct 2017
- Jungbluth, M.,** and Goetze, E. *The roles of copepod nauplii in marine planktonic ecosystems.* 13th International Conference on Copepoda, San Pedro, CA July 2017
- Jungbluth, M.,** Lenz, P.H., Hanson, K.M., Selph, K.E. and Goetze, E. *Copepod early-life history responses to event-scale perturbations in the coastal zone.* ASLO Ocean Sciences Meeting, Honolulu, HI Feb 2017
- Jungbluth, M.,** Lenz, P.H., Goetze, E. *A novel molecular method to enumerate copepod nauplii in field populations.* Ocean Sciences Meeting, Salt Lake City, UT Feb 2012
- Jungbluth, M.,** Goetze, E., Lenz, P.H. *Development of a quantitative method to enumerate copepod nauplii in field samples.* The Crustacean Society Summer Conference, Honolulu, HI June 2011

SELECTED SCIENCE COMMUNICATION

- Jungbluth, M.** *Using DNA to map out the food that keep fish alive.* San Francisco Examiner. Nov 27, 2019. <https://www.sfexaminer.com/news-columnists/using-dna-to-map-out-the-food-that-keep-fish-alive/> Online Newspaper Article
- Jungbluth, M.** *One scientist's path.* Presentation to Research Experiences for Undergraduates (REU) Students, Tiburon, CA. June 2017 Outreach Talk
- Jungbluth, M.** *Connections between plankton and people in Kane'ohē Bay, Hawai'i: Effects of coastal storm runoff on copepod populations.* Sea Grant Graduate Presentations, Hanauma Bay, Honolulu, HI. Dec 2013 Public Presentation
- Jungbluth, M,** Lenz, PH, and E Goetze. *What genetic methods can tell us about copepod populations in Kane'ohē Bay.* Sea Grant Graduate Presentations, Hanauma Bay, Honolulu, HI. Nov 2012 Public Presentation
- Jungbluth, M,** Lenz, PH, and E Goetze. *Tiny crustaceans in a large sea: How storms affect copepods in Kane'ohē Bay, Hawaii.* Sea Grant Graduate Presentations, Hanauma Bay, Honolulu, HI. Nov 2011 Public Presentation
- Jungbluth, M.** *Use of molecular techniques to study local zooplankton populations.* Ka Pili Kai, Sea Grant Hawaii, Vol. 33(1) 6-7. May 2011 Article
- Jungbluth, M,** Lenz, PH, and E Goetze. *Copepods of Kane'ohē Bay, Hawai'i.* Sea Grant Graduate Presentations, Hanauma Bay, Honolulu, Hawaii. Nov 2010 Public Presentation

PROFESSIONAL DEVELOPMENT

LEADERSHIP EXPERIENCE:

Anti-racism Committee Member: SFSU College of Science and Engineering effort to develop and implement strategies to become an anti-racist community.	2023-Present
Fellow, Equitable Collaboration in STEM HUB, SFSU	2021-2022
Exhibit Leader, California Academy of Science; Women in Science Nightlife Event <i>Duties:</i> Organized a group of students in the creation of a few new outreach materials to share the work our lab does with the public through an interactive exhibit about San Francisco Estuary zooplankton	2019
Visiting Scientist, on NOAA Pacific Island Fisheries Science Center LOPEC Research Cruise; Joint Institute for Marine and Atmospheric Research, Honolulu, Hawaii	2017
Exhibit Leader, SOEST Open House outreach event- <i>Zooplankton: Microscopic Ocean Drifters</i> <i>Duties:</i> Organize and develop outreach materials, coordinate and teach volunteers, work the event	2013, 2015, 2017
Officer, Professional Development and Training Program <i>Duties:</i> Help plan and organize professional development opportunities for graduate students and post-docs in SOEST	2015-2016
Chair, Science Communicators ‘Ohana, an organization I co-founded that aimed to promote effective methods of science communication to increase science literacy in society <i>Duties:</i> Organize and lead group meetings, organize and facilitate workshops, advertise, recruit members, coordinate events outside organizations	2014-2015
President, Na Kama Kai Oceanography graduate student organization	2014-2015
Member, Mentoring Network. Mentors and mentees of all levels who talk about how to be better mentors.	2014-2015
Organizer, student committee member representative of The Oceanography Society, for the 2014 Ocean Sciences Meeting in Honolulu, HI	2013-2014
Vice President, Na Kama Kai Oceanography graduate student organization	2013- 2014
Founder and contributor, Real Science at SOEST Blog: the first blog for graduate students in the School of Ocean Earth Science and Technology (UH Manoa) to share research and science experiences with the public	2013-2016

SHIP TIME: 88 days at sea, >87 on small vessels coastally

<i>Chief Scientist, R/V Athena (ICF) – Lead Scientist, field work for my Microbes to Zooplankton project in wetlands of the San Francisco Estuary (6+ days)</i>	2022
<i>R/V Questuary (SFSU) – Lead Scientist, teaching cruise for 2019 Summer REU students around the Central San Francisco Bay. Also 6 months pregnant. (1 day ea)</i>	2019, 2022, 2023
<i>R/V Questuary (SFSU) and R/V Turning Tide (ICF) – San Francisco Estuary field sampling investigating fine-scale spatial distribution of longfin smelt juveniles and potential prey assemblage, coordinated between a team of three research vessels each day. (8 days)</i>	2018
<i>Chief Scientist, R/V Questuary(SFSU) – San Francisco Estuary field sampling investigating depth distribution of longfin smelt juveniles and potential prey community, coordinated between a team of three research vessels. (2 days)</i>	2017
<i>NOAA Oscar Elton Sette – Cruise SE17-03, Leeward Oahu Pelagic Ecosystem Characterization (LOPEC) cruise participant – D. Kobayashi (NOAA) chief scientist. (10 days)</i>	2017
<i>R/V Questuary – San Francisco Estuary field sampling targeting longfin smelt larvae and potential prey community. (2 days)</i>	2017
<i>RRS James Clark Ross – Atlantic Meridional Transect cruise 24, Basin-Scale Genetics of Marine Zooplankton, cruise participant, NSF RAPID funded – T. Smyth (PML) chief scientist. (46 days)</i>	2014
<i>R/V Falkor – Student cruise 3 participant, Station ALOHA and Molokai Channel, MOCNESS zooplankton tows, microzooplankton grazing experiments, and seafloor mapping. E. Goetze (UH) chief scientist. (6 days)</i>	2014
<i>R/V Kilo Moana – cruise participant, Station ALOHA, NSF-funded Mesopelagic Micronekton study, B. Popp & J. Drazen chief scientists. (6 days)</i>	2011
<i>R/V Kilo Moana – cruise participant, West Coast of Oahu, Hawaii, University of Hawaii School of Ocean and Earth Science and Technology funded student cruise, J. Drazen (UH) chief scientist. (2 days)</i>	2011
<i>R/V Atlantis – ROV JASON-II cruise participant, Juan de Fuca Ridge, NSF-Microbial Observatory, J. Cowen (UH) & A. Fisher (UCSC) chief scientists. (18 days)</i>	2010
<i>Field sampling time series, Kaneohe Bay, HI – M.S. and Ph.D. Monthly plankton and environmental samples, four sets of 2-week daily sampling, other events. (>75 days)</i>	2010 - 2016

CONFERENCES and SYMPOSIA:

<i>Ocean Sciences Conference, Virtual</i>	2022
<i>Coastal and Estuarine Research Foundation Conference, Virtual</i>	2021

<i>Bay Delta Science Conference/Interagency Ecological Program Workshop, Virtual</i>	2021
<i>DNA AquaNet Conference, Virtual</i>	2021
<i>Biodiversity Genomics Conference, Virtual</i>	2020
<i>Ocean Sciences Conference, San Diego, CA</i>	2020
<i>Digital Data in Biodiversity Conference, New Haven, CT</i>	2019
<i>Illumina User Group Meeting, San Francisco, CA</i>	2018
<i>Bay Delta Science Conference, Sacramento, CA</i>	2018
<i>Ocean Sciences Conference, Portland, OR</i>	2018
<i>Gordon Research Conference on Predator-Prey Interactions, Ventura, CA</i>	2018
<i>State of the Estuary Conference, Oakland, CA</i>	2017
<i>13th International Conference on Copepoda, San Pedro, CA</i>	2017
<i>6th Zooplankton Production Symposium, Bergen Norway</i>	2016
<i>Ocean Sciences Conference, Honolulu, HI</i>	2014
<i>Aquatic Sciences Conference, New Orleans, LA</i>	2013
<i>Ocean Sciences Conference, Salt Lake City, UT</i>	2012
<i>The Crustacean Society Summer Conference, Honolulu, HI</i>	2011

WORKSHOPS and SHORT COURSES ATTENDED:

<i>Interagency Ecological Program Workshop, Folsom, CA</i>	2018-2023
<i>Zoopfest Workshop</i>	2022
<i>COAST Implicit Bias Training Workshop, Virtual</i>	2021
<i>Professional Website Workshop, Science Communicators ‘Ohana, Honolulu, HI</i>	2016
<i>Improvisation for Scientists Workshop, Science Communicators ‘Ohana, Honolulu, HI</i>	2015
<i>Early Career Leadership Workshop, Science and Technology Center Meeting, Honolulu, HI</i>	2015
<i>Sir Alister Hardy Foundation for Ocean Sciences- Marine Crustacean Zooplankton Workshop, 1 of 20 international attendees, Plymouth, United Kingdom</i>	2015
<i>Negotiating the Next Career Move: A Leadership Summit with COACH, Honolulu, HI</i>	2015
<i>Pub Speech Workshop, Science Communicators ‘Ohana, Honolulu, HI</i>	2015
<i>Blog Basics Workshop, Science Communicators ‘Ohana, Honolulu, HI</i>	2015
<i>Teaching Science as Inquiry: Communicating Ocean Science workshop, Honolulu, HI</i>	2013

<i>Publishing and Reviewing Manuscripts</i> workshop, New Orleans, LA	2013
<i>SCINTILLATION: A Workshop to Make Your Science Communication Scintillate through "Critical Storytelling"</i> , New Orleans, LA	2013
<i>C-MORE Virtual Workshop on Science Writing</i> , Honolulu, HI	2012
<i>Clustering in Bioinformatics and Medical Informatics</i> workshop, Honolulu, HI	2012
<i>Science: Becoming the Messenger</i> workshop, NSF, Honolulu, HI	2012
<i>R/V Kilo Moana, 1 m² MOCNESS (Multiple Opening and Closing Net and Environmental Sensing System)- training for deployment and recovery</i> , Honolulu, HI	2011

PROFESSIONAL MEMBERSHIPS:

Association for the Sciences of Limnology and Oceanography (ASLO)
Coastal and Estuarine Research Foundation (CERF)
The Oceanography Society (TOS)
World Association of Copepodologists (WAC)
American Microscopical Society (AMS)
The Crustacean Society (TCS)

PUBLIC SERVICE

Outreach: Estuary & Ocean Science Center Open House, public science outreach event (2018, 2019, 2023: not held in 2020-2022)

Outreach: Girl Scouts. *Women Oceanographers, Oceanography, and the Importance of Ocean Science to Our Planet!* Discussion with a Girl Scout Troop, to help them get their Oceanography Badge. Virtual Brooklyn, NY. April 2021.

Outreach: Skype-a-Scientist. *Plankton Science!* Presentation to 1st grade class in Virtual Chester, PA. March 2021.

Outreach: Skype-a-Scientist. *What's in your water? Studies of tiny aquatic animals.* Presentation to 5th grade class in Virtual Brooklyn, NY. April 2020.

Outreach: California Academy of Sciences Night Life Women in Science event. Organized and led an exhibit on women in plankton ecology: past, present, and future. 2019.

Invited Panelist: University of California, Berkeley, *Beyond Academia: Public Sector Fellowships* Workshop. 2018.

Community Service: Beach cleanup with Sustainable Coastlines Hawaii

Outreach: School of Ocean Science Engineering and Technology Open House, Organized and led the Plankton and Food Webs exhibit

Community Service: Zooplankton expert, Kapolei Middle School trips to Hawaii Institute of Marine Biology: plankton tows, talk to students about zooplankton and my research

Community Service: Hawaii State Science and Engineering Fair, Judge, Junior & Senior divisions

Community Service: Plankton expert, biannual UH Manoa Biology Plankton Party

Outreach: Interviewee on the *All Things Marine* radio show, via COSEE Island Earth on Hawaii's Tomorrow 760 AM radio, live from the R/V Falkor

Community Service: Expanding Your Horizons event, to motivate young women in science, mathematics, and technology, Honolulu, Hawaii

Community Service: Expert in identification of plankton, CDEBI & CMORE Marine Science Workshop for outer island teachers, Sacred Hearts Academy, Lahaina, Maui

Outreach: CDEBI & CMORE visit to Kalama Middle School, discuss careers in Marine Science with 8th grade students, Makawao, Maui HI

Community Service: Hawaii Association of Independent Schools District Science Fair, Judge

Community Service: Hawaiian Humane Society volunteer

Community Service: School of Ocean Science Engineering and Technology Open House, Kids activity tent with *Gyotaku*, density, and wave activities

Community Service: Provided frequent field sampling opportunities for undergraduates