

## Scott Stanley Gabara

Ecology PhD (San Diego State University / UC Davis Joint Doctoral Program)

Master of Science (Moss Landing Marine Laboratory, SJSU)

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### EDUCATION

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- 2015-2020 Ph.D.  
SDSU/UC Davis Joint Doctoral Program in Ecology  
Advisor: Matt Edwards, UCD sponsor: Brian Gaylord
- 2010-2014 Master of Science in Marine Science  
Moss Landing Marine Laboratories, San Jose State University  
Co-advised: Diana L. Steller & Michael H. Graham
- 2003-2007 Bachelor of Sciences in Marine Biology  
University of California Santa Cruz



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### WORK EXPERIENCE

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- 2019-Present Consulting with Naval Information Warfare Center Pacific (NIWC Pacific) and NOAA determining seagrass community food resources for endangered green sea turtles in South San Diego Bay. Quarterly field collections and lab sorting for producers and consumers across fixed and random sites. Conducted fieldwork and prepped community samples (~700) for stable isotope analysis. Manuscript in prep.
- 2015-2020 As a PhD student I conducted field work in the Aleutian Islands including a field caging experiment on Adak Island, (2) lab-based experiments testing the effects of light/grazing on, and spatial variation of, macroalgal growth and defense at Kasitsna Bay NOAA lab. I also tested for differences in trophic complexity with decreasing biodiversity by sampling marine communities and conducting stable isotope analyses across a biodiversity gradient (~1200 samples). I also conducted lab-based studies at Bodega Marine Lab testing the effects of predator waterborne cues on red and white abalone foraging.
- 2018-2020 I helped run a CA Sea Grant on the effects of mooring chain disturbance on coralline algal rhodolith community biodiversity and productivity at Santa Catalina Island, CA.
- 2015-2019 I helped conduct an NSF project using benthic productivity chambers deployed across the Aleutian Island archipelago. I built and maintained benthic chambers, calibrated and helped deploy sensors (DO, PAR, pH), downloaded and managed data, and generated summary statistics and plots for publication (Edwards et al. 2020).
- 2014-2015 Restoration assistant for Central Coast Wetlands Group (MLML). Duties included greenhouse manager, propagation of native plants, construction of planting tables, greenhouses, and watering systems.
- 2010-2014 As a masters student I designed a subtidal sampling protocol for my thesis at Catalina Island. Assembled and directed multiple sampling teams composed of students and volunteers. Raised over \$10,500 through grant writing to support field sampling trips (Gabara et al. 2018) and stable isotope analyses (Gabara 2020).
- 2010-2014 As the Assistant Diving Safety Officer at Moss Landing Marine Laboratories I co-taught, organized, and directed marine science diving classes held during the summer and fall. I was also tasked with maintaining dive gear and equipment, inspecting SCUBA cylinders, maintaining inflatable boats, a dive locker, and air compressors.
- 2010-2007 As a PISCO Subtidal Marine Technician at Long Marine Lab (UCSC) I helped organize and direct co-workers/volunteers, conducted SCUBA sampling trips from Santa Cruz to San Luis Obispo, and constructed/maintained oceanographic moorings and equipment.
- 2007 PISCO Subtidal UCSC volunteer at Long Marine Lab.
- 2009 Volunteer diver for USGS aboard the R/V Robert Gordon Sproul.

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## TEACHING EXPERIENCE

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2020	Formed the SDSU ISOclub, a stable isotope working group for ecology students
2019	Guest lecture “Plotting w/ ggplot2”, SDSU (BIO 597, Univariate Stat. Methods in Bio.)
2019	Teaching Asst., SDSU (BIO 354, Ecology and the Environment)
2017	Teaching Asst., UC Davis (EVE 101, Intro to Ecology)
2017	Organizer/lecturer, UC Davis (EVE 298, Seminar – Stable Isotopes: tools to examine food webs)
2010-2014	Teaching Asst., Moss Landing Marine Laboratories (MS105, Marine Science Diving)
2011	Teaching Asst., MLML (MS273, Ecology of the Gulf of California)
2009	Teaching Asst., University of California Santa Cruz (BIO75 Scientific Diving Methods)

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## PRESENTATIONS

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2020	Contributed Talk, Western Society of Naturalists, <i>Conditions for the propagation of seabird subsidies through kelp forest ecosystems</i> (online)
2020	Invited Talk, CSU Monterey Bay Natural Sciences Seminar Series, <i>Causes and Consequences of Kelp Forest Foundation Species Loss</i> (Zoom)
2020	Contributed Talk, UC Davis/SDSU PhD Exit seminar, <i>Causes and Consequences of Kelp Forest Foundation Species Loss</i> (Zoom)
2020	Contributed Talk, Alaska Marine Science Symposium, <i>Kelp Forest Deforestation Leads to Community-Wide Dietary Niche Contraction</i> (Anchorage, AK) – <b>Best PhD presentation</b>
2019	Contributed Talk, Western Society of Naturalists, <i>Kelp Forest Deforestation Leads to Community-Wide Dietary Niche Contraction</i> (Ensenada, MX) – <b>Honorable Mention</b>
2018	Contributed Talk, Western Society of Naturalists, <i>Among Habitat and Across Aleutian Island Variability in The Base of The Food Web from Stable Isotopes</i> (Tacoma, WA)
2018	Poster, Alaska Marine Science Symposium, <i>Mechanisms Leading to The Increase of The Coarse Spongy Cushion Codium ritteri Within Urchin Barrens</i> (Anchorage, AK)
2017	Contributed Talk, Western Society of Naturalists, <i>Mechanisms Leading to The Increase of The Coarse Spongy Cushion Codium Ritteri Within Urchin Barrens</i> (Pasadena, CA)
2015	Contributed Talk, Western Society of Naturalists, <i>Stable Isotopes Suggest Ontogenetic Dietary Niche Breadth Consistency in The California Moray Gymnothorax Mordax</i> (Sacramento, CA)
2012	Contributed Talk, Western Society of Naturalists, <i>Energy flow in a Rhodolith Bed at Catalina Island, CA.</i> (Oxnard, CA)
2012	Contributed Talk, IV International Rhodolith Workshop, <i>Energy flow in a Rhodolith Bed at Catalina Island, CA.</i> (Granada, Spain)
2012	Poster, Monterey Bay National Marine Sanctuary Currents Symposium, <i>Rhodolith Associated Invertebrates and Algae, Catalina Island.</i> (Seaside, CA)
2006	Contributed Talk, Monterey Bay National Marine Sanctuary Draft Management Plan, Spoke for the inclusion of the Davidson Seamount into the MBNMS (Santa Cruz, CA)

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## PUBLICATIONS

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### 2020

Gabara SS (Submitted, Marine Ecology Progress Series) Spatial variation of Aleutian Island Archipelago kelp stable isotope values and elemental concentrations

Gabara SS, Konar BH, Edwards MS (In prep, Proceedings of the Royal Academy of Sciences B) Conditions for the propagation of seabird guano-derived nutrients through kelp forests

Gabara SS, Konar BH, Edwards MS (Accepted, Ecosphere) Kelp forest deforestation leads to community-wide dietary niche contraction

Gabara SS, Weitzman BP, Konar BH, Edwards MS (Accepted, Marine Biology) Macroalgal defense phenotype correlates with herbivore abundance

Gabara SS, Mehta RS (In prep, Target journal: Environmental Biology of Fishes) Stable isotopes from different tissues reveal seasonal dietary niche shifts of California morays *Gymnothorax mordax*

Dolarin D, Steller DL, Gabara SS, Beckley B, Kim J, Edwards MS (Accepted, Ciencias Marinas) Impacts of Boat Mooring Disturbance on Productivity and Respiration in Catalina Rhodolith Beds

Edwards MS, Konar BH, Kim J-H, Gabara SS, Sullaway G, McHugh T, Spector M, Small S (2020) Marine deforestation leads to widespread loss of ecosystem function. PLoS ONE 15(3): e0226173. <https://doi.org/10.1371/journal.pone.0226173>

Gabara SS (2020) Trophic structure and potential carbon and nitrogen flow of a rhodolith bed at Santa Catalina Island inferred from stable isotopes. *Mar Biol* 167: 30 <https://doi.org/10.1007/s00227-019-3635-9>

## **2018**

Gabara SS, Hamilton SL, Edwards MS, Steller DL (2018) Rhodolith structural loss decreases abundance, diversity, and stability of benthic communities at Santa Catalina Island, CA. *Marine Ecology Progress Series* 595:71-88 <https://doi.org/10.3354/meps12528>

## **2014**

Gabara, Scott Stanley, "Community Structure and Energy Flow within Rhodolith Habitats at Santa Catalina Island, CA" (2014). *Master's Theses*. Paper 4495. [http://scholarworks.sjsu.edu/etd\\_theses/4495](http://scholarworks.sjsu.edu/etd_theses/4495)

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## **JOURNAL REVIEWS**

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Bulletin of Marine Science, Marine Ecology Progress Series, Restoration Ecology, PeerJ, Southeastern Naturalist

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## **SCHOLARSHIPS, GRANTS AND AWARDS**

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2020	Alaska Marine Science Symposium (AMSS) best PhD talk, \$250
2019	Council on Ocean Affairs, Science & Technology (COAST) Student Travel Award to the Alaska Marine Science Symposium conference, \$750
2018	SDSU University Graduate Fellowship, \$25000
2017	Western Society of Malacologists, \$1000
2013	David & Lucile Packard Grant, \$1000
2013	American Academy of Underwater Sciences (AAUS) Kevin Gurr Scholarship Award, 1 <sup>st</sup> Place, \$3000
2013	MLML Signe Lundstrom Memorial Scholarship, \$750
2013	Moss Landing Marine Laboratories 2013 Wave Award, \$750
2012	Council on Ocean Affairs, Science & Technology (COAST) Student Award for Marine Science Research, \$3000
2012	Dr. Earl H. Myers and Ethel M. Myers Oceanographic and Marine Biology Trust, \$1000
2012	Council on Ocean Affairs, Science & Technology (COAST) Student Travel Grant to Granada, Spain, \$1000

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## **PROFESSIONAL MEMBERSHIPS**

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Western Society of Naturalists (WSN)  
American Society of Naturalists (ASN)  
American Academy of Underwater Sciences (AAUS)

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## **REFERENCES**

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Dr. Matthew Edwards, San Diego State University

619 594 0114 (office) / 619 871 5357 (cell)  
medwards@sdsu.edu

PhD advisor. I worked as a graduate assistant for Dr. Edwards for an NSF project awarded to him and Dr. Brenda Konar. I have also collaborated with Dr. Edwards and my masters advisor Dr. Steller on a CA Sea Grant.

Dr. Diana Steller, Moss Landing Marine Laboratory  
831 771 4440 (office) / 831 588 5591 (cell)  
dsteller@mlml.calstate.edu

Masters advisor. I co-ran the MLML diving program with Dr. Steller. I am currently working with her and Dr. Edwards on a CA Sea Grant.

Dr. Brenda Konar, University of Alaska Fairbanks  
907 474 5028 (office)  
bhkonar@alaska.edu

Colleague. Dr. Konar has advised me on two of my dissertation chapters. I worked with her lab during the Aleutian Island NSF cruises to get collections of producers and consumers within kelp forest, urchin barren, and offshore habitats.