MATTHEW E. S. BRACKEN
Curriculum Vitae

Ecology and Evolutionary Biology
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I. Education & Employment History

A. Education

1997-2003 Ph.D. in Zoology, Oregon State University. Advisors: Bruce Menge & Jane Lubchenco
1993-1997 B.S. in Biology (Mathematics Minor), University of Puget Sound (Cum Laude)

B. Employment

2019- Professor, Ecology & Evolutionary Biology, University of California, Irvine
2014-2019 Associate Professor, Ecology & Evolutionary Biology, University of California, Irvine
2013 Associate Professor, Marine & Environmental Sciences & Biology, Northeastern University
2011-2013 Assistant Professor, Marine & Environmental Sciences, Northeastern University
2007-2013 Assistant Professor, Biology, Northeastern University
2005-2007 Postdoctoral Scholar, Bodega Marine Lab, UC Davis. Advisor: Susan Williams
2004-2005 Postdoctoral Scholar, Evolution and Ecology, UC Davis. Advisor: Jay Stachowicz
2003-2004 Visiting Postdoctoral Researcher, Edward Percival Field Station, Kaikoura, New Zealand. Advisor: David Schiel

II. Honors & Awards

2015 Erskine Fellowship, University of Canterbury, New Zealand
2014 Scientist-in-Residency Fellowship, Sitka Sound Science Center, Alaska
2000 Best Student Paper Award, Western Society of Naturalists Annual Meeting
1998-2001 Graduate Research Fellowship, National Science Foundation
1997 Selected for membership in Phi Kappa Phi
1993-1997 National Merit Scholarship
1993-1996 National Science Scholarship, U.S. Department of Education
1992 Japan-U.S. Senate Scholarship

III. Grants

15. Bracken, M.E.S. (PI) & J.N. Griffin (co-PI) (2022-2025) National Science Foundation: NSFGEO-NERC: Linking species traits to marine ecosystem functioning. UCI Portion: $831,969. Total: ~$1,124,062 (including £239,377 from NERC to UK co-PI).
14. Lamb, J.B (PI) & M.E.S. Bracken (co-PI) (2020-2023) California Sea Grant / Ocean Protection Council: Scaling a new cost-effective intervention tool to restore and future-proof coastal kelp forests. Total: $300,181.
13. Raimondi, P. (PI), M.E.S. Bracken (co-PI), C.J.B. Sorte (co-PI), J.E. Caselle (co-PI), J.L. Burnaford (co-PI), J.R. Smith (co-PI), K. Troxel (co-PI). (2019-2022) California Sea Grant / Ocean Protection Council: Assessment of rocky intertidal habitats for the California Marine Protected Area Monitoring Program. UCI Portion: $52,921. Total: $1,104,111.

12. Sorte, C.J.B. (PI), M.E.S. Bracken (co-PI), L.P. Miller (co-PI), & K.J. Kroeker (co-PI). (2018-2022) National Science Foundation: Collaborative research: Effects of multiple aspects of climate change on marine biodiversity and ecosystem functioning. UCI Portion: $475,916. Total: $667,777.
11. Mackey, K.R.M. (PI), M.E.S. Bracken (co-PI), A.C. Martiny (co-PI), & K.K. Treseder (co-PI). (2017-2022) National Science Foundation: MRI: Acquisition of a Zeiss PALM microscope for molecular and microbiological research. Total: $365,812.
10. Bracken, M.E.S. (PI), A.C. Martiny (co-PI), & L.P Miller (co-PI). (2017-2021) National Science Foundation: Collaborative research: Context-dependency of top-down vs. bottom-up effects of herbivores on marine primary producers. UCI Portion: $549,060. Total: $672,627.
9. Sorte, C.J.B. (PI) & M.E.S. Bracken (co-PI) (2016-2017) UC Irvine Single and Multi-Investigator Research Projects (PKA Track 1) Seed Funding Award: Effects of multiple aspects of climate change on marine biodiversity and ecosystem functioning. Total: $39,400.
8. Bracken, M.E.S. (PI) & C.J.B. Sorte (co-PI) (2014-2016) UC Irvine Small Capital Improvement Program: Steinhaus Basement B-47 Seawater Lab Renovation. Total: $200,000.
7. Hughes, A.R. (PI) and Bracken, M.E.S. (co-PI). (2014-2015) National Oceanic and Atmospheric Administration, MIT Sea Grant: Functional consequences of invasion-mediated biodiversity changes in a marine ecosystem. Total: $74,785.
6. Bracken, M.E.S. (PI) & C.S. Thornber (co-PI). (2012-2015) National Oceanic and Atmospheric Administration, Woods Hole Sea Grant: Mechanisms for success and potential impacts of an invasive seaweed: "*Heterosiphonia*" *japonica* in New England coastal ecosystems. Total: $112,999.
5. Bracken, M.E.S. (PI) & S.V. Vollmer (co-PI). (2011-2012) Northeastern University Office of the Provost, Tier 1 Interdisciplinary Seed Project: Consequences of local adaptation and genetic diversity for marine community dynamics and ecosystem functioning. Total: $23,700.
4. McCauley, C. (PI) & M.E.S. Bracken (co-PI). (2011-2012) New England Aquarium: Building community-based outdoor ocean science learning for families. Total: $6,700.
3. Bracken, M.E.S. (PI) & G.C. Trussell (co-PI). (2010-2014) National Science Foundation: Context-dependency of marine biodiversity-ecosystem function relationships. Total: $399,823.
2. Trussell, G.C. (PI), J. Ayers (co-PI), M.E.S. Bracken (co-PI), & S. Vollmer (co-PI). (2010-2013) National Science Foundation: Modernization and enhancement of the seawater system and research infrastructure at Northeastern University's Marine Science Center. Total: $1,768,555.
1. Williams, S.L. (PI) & M.E.S. Bracken (co-PI). (2006-2010) National Science Foundation: Influences of nonrandom biodiversity change on marine ecosystem functioning. Total: $512,219.

IV. Scholarship & Research

A. Publications

P = peer-reviewed publications; B = book chapters; C = published conference proceedings; O = other publications (e.g., book reviews, editorials, reports, data papers, memorials).

[*]Indicates undergraduate advisee; [†]Indicates graduate student advisee; [#]indicates postdoc advisee.

O70. Griffin, J.N., A. Mauffrey, & M.E.S. Bracken. *in press*. The untapped potential of categorical traits in seaweed functional diversity research. *Journal of Ecology*.

P69. Mahanes, S.A., C.J.B. Sorte, & M.E.S. Bracken. *in press*. The functional effects of a dominant consumer are altered following the loss of a dominant producer. *Ecology and Evolution* 13: e10342.

P68. Sorte, C.J.B., K.J. Kroeker, L.P. Miller, & M.E.S. Bracken. 2023. Biological modification of coastal pH depends on community composition and time. *Ecology* 104: e4113.

P67. Bedgood, S.A., S.T. Levell, & M.E.S. Bracken. 2023. Sea anemone microhabitats enhance the diversity and biomass of mobile invertebrates on temperate rocky shores. *Marine Ecology Progress Series* 715: 57-68.

P66. Mahanes, S.A., M.E.S. Bracken, & C.J.B. Sorte. 2022. Climate change amelioration by marine producers: Does dominance predict impact? *Biological Bulletin* 243: 299-314.

P65. Bracken, M.E.S., L.P. Miller, S.E. Mastroni, S.M. Lira[*], & C.J.B. Sorte. 2022. Accounting for variation in temperature and oxygen availability when quantifying marine ecosystem metabolism. *Scientific Reports* 12: 825.

P64. Elsberry, L.A.[†] & M.E.S. Bracken. 2021. Functional redundancy buffers mobile invertebrates against the loss of foundation species on rocky shores. *Marine Ecology Progress Series* 673: 43-54.

O63. Bracken, M. 2021. A lack of clear dietary differences between ontogenetic stages of invasive slippersnails provides important insights into resource use and potential inter- and intra-specific competition. *Peer Community in Ecology*: 100077.

P62. Roberts, E.A.[†] & M.E.S. Bracken. 2021. Intertidal canopy-forming seaweeds modulate understory seaweed photoprotective compounds. *Journal of Phycology* 57: 645-654.

O61. Dennison, W.C., M.E.S. Bracken, M. Brown, J.F. Bruno, J.T. Carlton, R.C. Carpenter, T.J.B. Carruthers, M.N. Dethier, C.M. Duarte, T.R. Fisher, J.W. Fourqurean, R.K. Grosberg, L.J. Hamdan, K.L. Heck, D.J. Howard, A.R. Hughes, B.B. Hughes, G.A. Kendrick, W.J. Kenworthy, F. Mars, C.P. McRoy, R.L. Naylor, B. Nyden, J.C. Ogden, S. Olyarnik, R.J. Orth, F.T. Short, C.J.B. Sorte, J.J. Stachowicz, D.R. Strong, C. Sur, & M. Waycott. 2021. Susan Lynn Williams: the life of an exceptional scholar, leader, and friend (1951–2018). *Estuaries and Coasts* 44: 304-311.

P60. Bedgood, S.A.[†], S.E. Mastroni, & M.E.S. Bracken. 2020. Flexibility of nutritional strategies within a mutualism: food availability affects algal symbiont productivity in two congeneric sea anemone species. *Proceedings of the Royal Society B: Biological Sciences* 287: 20201860.

O59. Bracken, M.E.S., N.J. Silbiger, G. Bernatchez, and C.J.B. Sorte. 2020. Seawater carbonate chemistry and net community production and net ecosystem calcification in tide pools. *PANGAEA*: 924379.

P58. Benes, K.M.[†] & M.E.S. Bracken. 2020. Interactive effects of large- and local-scale environmental gradients on phenotypic differentiation. *Ecology* 101: e03078.

P57. Bracken, M.E.S. 2020. Complementarity in spatial subsidies of carbon associated with resource partitioning along multiple niche axes. *Oecologia* 193:425-436.

P56. Bedgood, S.A.[†], M.E.S. Bracken, W.H. Ryan, S.T. Levell, and J. Wulff. 2020. Nutritional drivers of adult locomotion and asexual reproduction in a symbiont-hosting sea anemone *Exaiptasia diaphana*. *Marine Biology* 167:39.

O55. Bracken, M. 2019. Evaluating physiological responses of a kelp to environmental changes at its vulnerable equatorward range limit. *Peer Community in Ecology* 100010 <hal-02043511>.

O54. Wallingford, P.D., L.L.M. Pandori, S.A. Bedgood[†], M.E.S. Bracken, L.A. Elsberry[†], A.K. Henry[#], S.A. Mahanes, & C.J.B. Sorte. 2018. A guide to the relationships between marine spatial patterns and ecological processes. *Frontiers of Biogeography* 10:39410.

P53. Bracken, M.E.S., J.M. Oates[*], A.J. Badten[*], & G. Bernatchez. 2018. Predicting rates of consumer-mediated nutrient cycling by a diverse herbivore assemblage. *Marine Biology* 165:165.

P52. Bracken, M.E.S. 2018. When one foundation species supports another: tubeworms facilitate an extensive kelp bed in a soft-sediment habitat. *Ecosphere* 9:e02429.

P51. Elsberry, L.A.[†] R.J. Fales[*], & M.E.S. Bracken. 2018. Changes in biodiversity and species associations along a latitudinal gradient. *Frontiers of Biogeography* 10:e37952.

P50. Bracken, M.E.S., N.J. Silbiger, G. Bernatchez, & C.J.B. Sorte. 2018. Primary producers may ameliorate impacts of daytime CO_2 addition in a coastal marine ecosystem. *PeerJ* 6:e4739.

O49. Nielsen K.J., J. Stachowicz, H. Carter, K. Boyer, M. Bracken, F. Chan, F. Chavez, K. Hovel, M. Kent, K. Nickols, J. Ruesink, J. Tyburczy, & S. Wheeler. 2018. *Emerging Understanding of the Potential Role of Seagrass and Kelp as an Ocean Acidification Management Tool in California*. California Ocean Science Trust, Oakland, California, USA.

P48. Bracken, M.E.S. 2017. Stoichiometric mismatch between consumers and resources mediates the growth of rocky intertidal suspension feeders. *Frontiers in Microbiology* 8:1297.

P47. Bracken, M.E.S., J.G. Douglass[#], V. Perini[†], & G.C. Trussell. 2017. Spatial scale mediates the effects of biodiversity on marine primary producers. *Ecology* 98:1434-1443.

P46. Menge, B.A., M.E.S. Bracken, J. Lubchenco, & H.M. Leslie. 2017. Alternative stable state? Experimentally-induced *Fucus* canopy persists 38 yr in an *Ascophyllum*-dominated community. *Ecosphere* 8:e01725.

P45. Bracken, M.E.S. & S.L. Williams. 2017. The underappreciated role of life history in mediating the functional consequences of biodiversity change. *Oikos* 126:488-496.

P44. Ramsay-Newton, C.[†], A. Drouin[†], A.R. Hughes, & M.E.S. Bracken. 2017. Species, community, and ecosystem responses following the invasion of the red alga *Dasysiphonia japonica* to the western North Atlantic Ocean. *Biological Invasions* 19:537-547.

P43. Gruner, D.S.[¶], M.E.S. Bracken[¶], S.A. Berger, B.K. Eriksson, L. Gamfeldt, B. Matthiessen, S. Moorthi, U. Sommer, & H. Hillebrand. 2017. Effects of experimental warming on biodiversity depend on ecosystem type and local species composition. *Oikos* 126:8-17. ([¶]authors contributed equally, *Oikos* Editor's Choice)

P42. Benes, K.M. [†] & M.E.S. Bracken. 2016. Nitrate uptake varies with tide height and nutrient availability in the intertidal seaweed *Fucus vesiculosus*. *Journal of Phycology* 52:863-876.

P41. LaScala-Gruenewald, D.E., L.P. Miller, M.E.S. Bracken, B.J. Allen, & M.W. Denny. 2016. Quantifying the top-down effects of grazers on a rocky shore: selective grazing and the potential for competition. *Marine Ecology Progress Series* 553:49-66.

P40. Sorte, C.J.B & M.E.S. Bracken. 2015. Warming and elevated CO_2 interact to drive rapid shifts in marine community production. *PLoS ONE* 10:e0145191.

P39. O'Connor, N.E., M.E.S. Bracken, T.P. Crowe, & I. Donohue. 2015. Nutrient enrichment alters the consequences of species loss. *Journal of Ecology* 103:862-870.

P38. Bracken, M.E.S., H. Hillebrand, E.T. Borer, E.W. Seabloom, J. Cebrian, E.E. Cleland, J.J. Elser, D.S. Gruner, W.S. Harpole, J.T. Ngai, & J.E. Smith. 2015. Signatures of nutrient limitation and co-limitation: responses of autotroph internal nutrient concentrations to nitrogen and phosphorus additions. *Oikos* 124:113-121. (*Oikos* Editor's Choice)

P37. Low, N.H.N.[*], A. Drouin[†], C.J. Marks, & M.E.S. Bracken. 2015. Invader traits and community context contribute to the recent invasion success of the macroalga *Heterosiphonia japonica* on New England rocky reefs. *Biological Invasions* 17:257-271.

P36. Bracken, M.E.S., R.E. Dolecal, & J.D. Long. 2014. Community context mediates the top-down versus bottom-up effects of grazers on rocky shores. *Ecology* 95:1458-1463.

P35. Perini, V.[†] & M.E.S. Bracken. 2014. Nitrogen availability limits phosphorus uptake in an intertidal macroalga. *Oecologia* 175: 667-676 (Cover photo)

P34. Best, R.J., A. Chaudoin[*], M.E.S. Bracken, M.H. Graham, & J.J. Stachowicz. 2014. Plant-animal diversity relationships in a rocky intertidal system depend on invertebrate body size and algal cover. *Ecology* 95: 1308-1322. (Cover photo)

P33. Bracken, M.E.S. & S.L. Williams. 2013. Realistic changes in seaweed biodiversity affect multiple ecosystem functions on a rocky shore. *Ecology* 94: 1944-1954.

P32. Borer, E.T., M.E.S. Bracken, E.W. Seabloom, J.E. Smith, J. Cebrian, E.E. Cleland, J.J. Elser, D.S. Gruner, W.S. Harpole, H. Hillebrand, and J.T. Ngai. 2013. Global biogeography of autotroph chemistry: is insolation a driving force? *Oikos* 122: 1121-1130. (*Oikos* Editor's Choice)

P31. Newton, C.[†], M.E.S. Bracken, M. McConville, K. Rodrigue, & C.S. Thornber. 2013. Invasion of the red seaweed *Heterosiphonia japonica* spans biogeographic provinces in the western North Atlantic Ocean. *PLoS ONE* 8: e62261.

P30. Williams, S.L., M.E.S. Bracken, & E. Jones. 2013. Additive effects of physical stress and herbivores on intertidal seaweed diversity. *Ecology* 94: 1089-1101.

P29. Bracken, M.E.S., B.A. Menge, M.M. Foley, C.J.B. Sorte, J. Lubchenco, & D.R. Schiel. 2012. Mussel selectivity for high-quality food drives carbon inputs into open-coast intertidal ecosystems. *Marine Ecology Progress Series* 459: 53-62.

P28. Bracken, M.E.S. & N.H.N. Low*. 2012. Realistic losses of rare species disproportionately impact higher trophic levels. *Ecology Letters* 15: 461-467. (*Nature Climate Change* "Research Highlight"; *Faculty of 1000* "Recommended")

B27. Crowe, T.P., M.E.S. Bracken, & N.E. O'Connor. 2012. Reality check: issues of scale and abstraction in biodiversity research, and potential solutions. Pages 185-199 *in* M. Solan, R.J. Aspden, and D.M. Paterson, editors. *Marine Biodiversity Futures and Ecosystem Functioning: Frameworks, Methodologies and Integration*. Oxford University Press, Oxford, UK.

P26. Harpole, W.S., J.T. Ngai, E.E. Cleland, E.W. Seabloom, E.T. Borer, M.E.S. Bracken, J.J. Elser, D.S. Gruner, H. Hillebrand, J.B. Shurin, & J.E. Smith. 2011. Nutrient co-limitation of primary producer communities. *Ecology Letters* 9: 852-862. (*Faculty of 1000* "Must Read"; *Thompson Reuters* "Highly Cited Paper")

P25. Bracken, M.E.S., E. Jones, & S.L. Williams. 2011. Herbivores, tidal elevation, and species richness simultaneously mediate nitrate uptake by seaweed assemblages. *Ecology* 92: 1083-1093. (*Faculty of 1000* "Recommended")

C24. Liu, L., D.S. Smith, M. Bracken, J.B. Neethling, H.D. Stensel, S. Murthy, A. Pramanik, and A.Z. Gu. 2011. Occurrence, implication and bioavailability of dissolved organic phosphorus (DOP) in advanced wastewater effluents. *Proceedings of the Water Environment Federation* WEFTEC 2011: 4852-4863.

C23. Liu, L., M. Bracken, D.S. Smith, D. Houweling, J.B. Neethling, H.D. Stensel, S. Murthy, A. Pramanik, and A.Z. Gu. 2011. Phosphorus fractionation in various tertiary effluents: insights into and implications for advanced phosphorus removal. *Proceedings of the Water Environment Federation* Nutrient Recovery and Management 2011: 1192-1204.

P22. Sorte, C.J.B., A. Fuller†, & M.E.S. Bracken. 2010. Impacts of a simulated heat wave on composition of a marine community. *Oikos* 119: 1909-1918.

P21. Hillebrand, H., E.T. Borer, M.E.S. Bracken, B.J. Cardinale, J. Cebrian, E.E. Cleland, J.J. Elser, D.S. Gruner, W.S. Harpole, J.T. Ngai, S. Sandin, E.W. Seabloom, J.B. Shurin, J.E. Smith, & M.D. Smith. 2009. Herbivore metabolism and stoichiometry each constrain herbivory at different organizational scales across ecosystems. *Ecology Letters* 12: 516-527. (Cover photo)

P20. Altieri, A.H., G.C. Trussell, P.J. Ewanchuk, G. Bernatchez, & M.E.S. Bracken. 2009. Consumers control diversity and functioning of a natural marine ecosystem. *PLoS ONE* 4: e5291. (*Nature* "News Feature")

P19. Aquilino, K.M., M.E.S. Bracken, M.N. Faubel*, & J.J. Stachowicz. 2009. Local-scale autochthonous nutrient inputs in an upwelling ecosystem facilitate seaweed growth on wave-exposed rocky shores. *Limnology and Oceanography* 54: 309-317. (*Limnology and Oceanography* "Featured Article")

B18. Gamfeldt, L. & M.E.S. Bracken. 2009. The role of biodiversity for the functioning of rocky reef communities. Pages 361-373 *in* M. Wahl, editor. *Marine Hard Bottom Communities*. Springer, Heidelberg, Germany.

B17. Olyarnik, S.V. , M.E.S. Bracken, J.E. Byrnes, A.R. Hughes, K.M. Hultgren, & J.J. Stachowicz. 2009. Ecological factors affecting community invasibility. Pages 215-240 *in* G. Rilov and J.A. Crooks, editors. *Biological Invasions in Marine Ecosystems: Ecological, Management, and Geographic Perspectives*. Springer, Heidelberg, Germany.

P16. Stachowicz, J.J., R.J. Best, M.E.S. Bracken, & M.H. Graham. 2008a. Complementarity in marine biodiversity manipulations: reconciling divergent evidence from field and mesocosm experiments. *Proceedings of the National Academy of Sciences, USA* 105:18842-18847. (*Nature* "News Feature")

P15. Stachowicz, J.J., M. Graham, M.E.S. Bracken, & A.I. Szoboszlai. 2008b. Diversity enhances cover and stability of seaweed assemblages: the role of heterogeneity and time. *Ecology* 89: 3008-3019.

P14. Gruner, D.S., J.E. Smith, E.W. Seabloom, S.A. Sandin, J.T. Ngai, H. Hillebrand, W.S. Harpole, J.J. Elser, E.E. Cleland, M.E.S. Bracken, E.T. Borer, & B.M. Bolker. 2008. A cross-system synthesis of consumer and nutrient resource control on producer biomass. *Ecology Letters* 11: 740-755. (Cover photo)

P13. Bracken, M.E.S., S.E. Friberg[*], C.A. Gonzalez-Dorantes[*], & S.L. Williams. 2008. Functional consequences of realistic biodiversity changes in a marine ecosystem. *Proceedings of the National Academy of Sciences, USA* 105: 924-928. (*Science* "Editor's Choice"; *Nature* "News Feature"; *Trends in Ecology and Evolution* "Research Focus")

B12. Bracken, M.E.S. 2008. Monocultures versus polycultures. Pages 2446-2449 *in* S.E. Jørgensen and B. D. Fath editors. *Encyclopedia of Ecology*. Elsevier, Oxford, UK.

P11. Bracken, M.E.S., B.E. Bracken, & L. Rogers-Bennett. 2007a. Species diversity and foundation species: potential indicators of fisheries yields and marine ecosystem functioning. *California Cooperative Oceanic Fisheries Investigations Reports* 48: 82-91.

C10. Bracken, M. and L. Rogers-Bennett. 2007. Ecological interactions useful for ecosystem-based management: the role of positive species interactions, ecosystem engineers, and species diversity. *California Cooperative Oceanic Fisheries Investigations Reports* 48: 69-70.

P9. Elser, J.J., M.E.S. Bracken, E.E. Cleland, D.S. Gruner, W.S. Harpole, H. Hillebrand, J.T. Ngai, E.W. Seabloom, J.B. Shurin, & J.E. Smith. 2007. Global analysis of nitrogen and phosphorus limitation of primary producers in freshwater, marine, and terrestrial ecosystems. *Ecology Letters* 10: 1135-1142. (*Nature* "News and Views"; *Faculty of 1000* "Exceptional"; *Thompson Reuters* highly-cited "Emerging Research Front" paper; *Thompson Reuters* "Highly Cited Paper")

P8. Bracken, M.E.S., C.A. Gonzalez-Dorantes[*], & J.J. Stachowicz. 2007b. Whole-community mutualism: associated invertebrates facilitate a dominant habitat-forming seaweed. *Ecology* 88: 2211-2219. (*Faculty of 1000* "Recommended")

P7. Hillebrand, H., D.S. Gruner, E.T. Borer, M.E.S. Bracken, E.E. Cleland, J.J. Elser, W.S. Harpole, J.T. Ngai, E.W. Seabloom, J.B. Shurin, & J.E. Smith. 2007. Consumer versus resource control of producer diversity depends on ecosystem type and producer community structure. *Proceedings of the National Academy of Sciences, USA* 104: 10904-10909. (*Faculty of 1000* "Recommended"

P6. Bracken, M.E.S. & J.J. Stachowicz. 2007. Top-down modification of bottom-up processes: selective grazing reduces macroalgal nitrogen uptake. *Marine Ecology Progress Series* 330: 75-82.

B5. Bracken, M.E.S. 2007. Excretion. Pages 215-217 *in* M.W. Denny and S.D. Gaines, editors. *Encyclopedia of Tidepools and Rocky Shores*. UC Press, Berkeley, California, USA.

P4. Bracken, M.E.S. & J.J. Stachowicz. 2006. Seaweed diversity enhances nitrogen uptake via complementary use of nitrate and ammonium. *Ecology* 87: 2397-2403. (*Faculty of 1000* "Recommended")

P3. Bracken, M.E.S. 2004. Invertebrate-mediated nutrient loading increases growth of an intertidal macroalga. *Journal of Phycology* 40: 1032-1041.

P2. Bracken, M.E.S. & K.J. Nielsen. 2004. Diversity of intertidal macroalgae increases with nitrogen loading by invertebrates. *Ecology* 85: 2828-2836.

P1. Menge, B.A., J. Lubchenco, M.E.S. Bracken, F. Chan, M.M. Foley, T.L. Freidenburg, S.D. Gaines, G. Hudson, C. Krenz, H. Leslie, D.N.L. Menge, R. Russell, & M.S. Webster. 2003. Coastal oceanography sets the pace of rocky intertidal community dynamics. *Proceedings of the National Academy of Sciences, USA* 100: 12229-12234.

B. Presentations (First Author)

[*]Indicates undergraduate co-author, [†]Indicates graduate student co-author.

a. Invited seminars

44. Oceanus Seminar Series, Centro Interdisciplinar de Investigação Marinha, Matosinhos, Portugal (2023)
43. EBD Seminars, Estación Biológica de Doñana. Consejo Superior de Investigaciones Científicas, Sevilla, Spain (2023)
42. Ecology, Environment, & Plant Sciences Seminar, Stockholms Universitet, Sweden (2022)
41. OIMB Fall Seminar Series, Oregon Institute of Marine Biology, University of Oregon (2021)
40. Spring Seminar Series, Friday Harbor Laboratories, University of Washington (2021)
39. MBA Seminar Series, Marine Biological Association of the United Kingdom, Plymouth (2019)
38. Department of Biosciences Seminar, Swansea University, Wales (2019)
37. Interdepartmental Graduate Program in Marine Science Seminar, University of California, Santa Barbara (2019)
36. Weekly Seminar Series, Moss Landing Marine Laboratories, California State Universities (2019)
35. Ecology and Evolutionary Biology Seminar Series, University of California, Los Angeles (2017)
34. Marine Science Seminar Series, Dauphin Island Sea Lab (2016)
33. Marine Biology and Ecology Student Seminar Series, Coastal and Marine Laboratory, San Diego State University (2015)
32. Biology Seminar Series, Concordia University of Irvine (2015)
31. Marine Biology Seminar Series, Scripps Institution of Oceanography, University of California, San Diego (2015)
30. Orange County Natural History Lecture Series, Back Bay Science Center, Newport, California (2015)
28-29. Biological Sciences Seminar Series, University of Canterbury, Christchurch, New Zealand (2 seminars given during my Erskine Fellowship, 2015)
27. Toward a Sustainable 21st Century: Ocean Health, Global Fishing and Food Security, Beckman Center of the National Academy of Sciences and Engineering, Irvine, California (2014)
26. Ecology, Behavior, and Evolution Seminar Series, University of California, San Diego (2014)
25. Sitka Natural History Seminar Series, Sitka Sound Science Center, Sitka Alaska (2014)
24. Special Seminar, Department of Ecology and Evolutionary Biology, University of California, Irvine (2013)
23. Special Seminar, Scripps Institution of Oceanography, University of California, San Diego (2013)
22. Ecology, Evolution, Behavior, and Environmental Economics Seminar Series, Queen's University, Belfast, Northern Ireland (2012)
21. Ecology and Evolution Seminar Series, Trinity College, Dublin, Ireland (2012)
20. Behavior, Ecology, Evolution, and Systematics (BEES) Seminar Series, University of Maryland (2012)
19. Marine Conservation Seminar Series, California Polytechnic State University (2012)
18. Botany Seminar Series, University of British Columbia (2011)
17. Biology Seminar Series, University of Massachusetts, Boston (2010)
16. Meereswissenschaftliches Kolloquium, Leibniz Institute for Marine Biology, Kiel, Germany (2009)
15. Ecology and Evolutionary Biology Seminar Series, Brown University (2009)
14. Spring-Summer Colloquium Series, Dauphin Island Sea Lab (2009)
13. Special Seminar, Green Mountain College (2009)
12. Biology Colloquium, University of Rhode Island (2009)
11. Summer Science Series, Petersburg Marine Mammal Center, Alaska (2008)
10. Organismic and Evolutionary Biology Seminar Series, University of Massachusetts, Amherst (2008)
9. Evening Lecture Series, Marine Science Center, Northeastern University (2008)
8. Cramer Seminar Series, Dartmouth College (2008)
7. Three Seas Colloquium, Marine Science Center, Northeastern University (2006)
6. Biology Colloquia, Northeastern University (2006)
5. Weekly Seminar, Moss Landing Marine Laboratories, California State Universities (2005)

4. Special Seminar, Bodega Marine Laboratory, University of California, Davis (2005)
3. Biology Colloquium, Sonoma State University (2004)
2. John and Mary Louise Riley Seminar Series, Bodega Marine Laboratory, University of California, Davis (2004)
1. Thompson Hall Math and Science Seminar, University of Puget Sound (2003)

b. International Meetings

4. Bracken, M.E.S. 2021. Functional consequences of realistic biodiversity declines in marine systems. Invited Keynote Speaker, Baltic Sea Science Congress, Aarhus, Denmark.
3. Bracken, M.E.S. 2017. Top-down modification of bottom-up processes: nutrient recycling by consumers enhances algal growth in marine ecosystems. Invited Plenary Speaker, Joint Meeting of the Canadian Society for Plant Biology and the Canadian Society for Horticultural Science, Vancouver, Canada.
2. Bracken, M.E.S. 2016. The underappreciated role of life history in mediating the functional consequences of biodiversity change. Invited Speaker, Per Brinck Symposium, Nordic Oikos Meeting, Turku, Finland.
1. Bracken, M., B.A. Menge, M.M. Foley, D.R. Schiel, & J. Lubchenco. 2003. Variation in benthic-pelagic coupling along productivity gradients. International Temperate Reef Symposium, Christchurch, New Zealand.

c. National Meetings

11. Bracken, M.E.S., E. Jones, & S.L. Williams. 2022. Seaweed life-history strategies predict the functional consequences of biodiversity changes in response to an intertidal heat wave. Invited Speaker, *Phycological Society of America Presidential Symposium*, Joint Aquatic Sciences Meeting, Grand Rapids, Michigan.
10. Bracken, M.E.S., L.P. Miller, S.E. Mastroni, S.M. Lira*, & C.J.B. Sorte. 2021. Temperature and oxygen availability are key drivers of marine ecosystem metabolism. Ecological Society of America Meeting, held virtually due to COVID-19 pandemic.
9. Bracken, M.E.S. 2017. Coexistence, complemetarity and carbon inputs: resource partitioning by a guild of intertidal foundation species. Ecological Society of America Meeting, Portland, Oregon.
8. Bracken, M.E.S. 2017. Coexistence, complementarity, and resource partitioning in a guild of marine suspension feeders. Association for the Sciences of Limnology and Oceanography Aquatic Sciences Meeting, Honolulu, Hawaii.
7. Bracken, M.E.S., J.G. Douglass, & G.C. Trussell. 2012. Changes in the functional consequences of biodiversity loss along a latitudinal gradient. Ecological Society of America Annual Meeting, Portland, Oregon.
6. Bracken, M.E.S. & N.H.N. Low*. 2011. Loss of rare species disproportionately impacts higher trophic levels. Ecological Society of America Annual Meeting, Austin, Texas.
5. Bracken, M.E.S. & S.L. Williams. 2009. Realistic biodiversity changes alter nitrogen uptake by seaweed assemblages in an open-coast marine ecosystem. Coastal and Estuarine Research Federation Biennial Meeting, Portland, Oregon.
4. Bracken, M.E.S. & J.J. Stachowicz. 2005. Seaweed diversity enhances nitrogen uptake via complementary use of nitrate and ammonium. Ecological Society of America Annual Meeting, Montreal, Canada.
3. Bracken, M.E.S., B.A. Menge, M.M. Foley, D.R. Schiel, & J. Lubchenco. 2004. Species' roles in ecosystem fun,ctioning change along productivity gradients. Ecological Society of America Annual Meeting, Portland, Oregon.
2. Bracken, M.E.S. & K.J. Nielsen. 2003. Linking marine communities and ecosystems: nitrogen loading by invertebrates increases diversity and growth of intertidal macroalgae. Symposium on *Linking*

algae, oceanography, and marine ecology. Phycological Society of America Annual Meeting, Lincoln City, Oregon.

1. Bracken, M.E. & K.J. Nielsen. 2002. Diversity of intertidal seaweeds increases with nitrogen loading by invertebrates. Ecological Society of America Annual Meeting, Tucson, Arizona.

d. Regional/Local Meetings

19. Bracken, M.E.S., L.P. Miller, G. Bernatchez, L.A. Elsberry, R.J. Hill, G.M. Kalbach, L.E. Lees, and A.C. Martiny. 2022. Bottom-up effects of nutrients on herbivory are negated by warming. Western Society of Naturalists Meeting, Oxnard, California.
18. Bracken, M.E.S., K.J. Kroeker, L.P. Miller, & C.J.B. Sorte. 2020. Realistic field manipulations to simulate future climate conditions modify seaweed photosynthetic performance. Western Society of Naturalists Meeting, held virtually due to COVID-19 pandemic.
17. Bracken, M.E.S., E. Jones, & S.L. Williams. 2018. Impacts of a heatwave on intertidal seaweeds: bleaching, resilience, and productivity. Western Society of Naturalists Meeting, Tacoma, Washington.
16. Bracken, M.E.S., N.J. Silbiger, G. Bernatchez, & C.J.B. Sorte. 2017. Primary producers ameliorate impacts of CO_2 addition in a coastal marine ecosystem. Western Society of Naturalists Meeting, Pasadena, California.
15. Bracken, M.E.S., G. Bernatchez, A. Badten[*], & R. Chatfield[*]. 2016. Complex top-down and bottom-up effects of grazers on rocky shores. Western Society of Naturalists Meeting, Monterey, California.
14. Bracken, M.E.S. 2015. Stoichiometric mismatch mediates growth of rocky intertidal filter feeders. Western Society of Naturalists Meeting, Sacramento, California.
13. Bracken, M.E.S., J.G. Douglass, V. Perini[†], & G.C. Trussell. 2014. Functional consequences of biodiversity loss depend on time and location along a latitudinal gradient. Western Society of Naturalists Meeting, Tacoma, Washington.
12. Bracken, M.E.S. & S.L. Williams. 2012. Realistic changes in biodiversity alter nutrient use and photosynthetic rates of intertidal seaweed assemblages. Benthic Ecology Meeting, Norfolk, Virginia.
11. Bracken, M.E.S. & S.L. Williams. 2011. Realistic biodiversity changes alter nitrate uptake and photosynthesis rates of intertidal seaweed assemblages. Northeast Algal Symposium, Woods Hole, Massachusetts.
10. Bracken, M.E.S., E. Jones, & S.L. Williams. 2010. Herbivores and tidal elevation mediate nitrate uptake by intertidal seaweed assemblages. Benthic Ecology Meeting, Wilmington, North Carolina.
9. Bracken, M.E.S., S.L. Williams, E.M. Jones, A. Carranza, & R.C. Rockwood. 2008. Herbivores, thermal stress, and nutrients combine to determine intertidal algal diversity. Western Society of Naturalists Annual Meeting, Vancouver, Canada.
8. Bracken, M.E.S., S.E. Friberg[*], C.A. Gonzalez-Dorantes[*], & S.L. Williams. 2008. Functional consequences of realistic biodiversity changes in a marine ecosystem. Benthic Ecology Meeting, Providence, Rhode Island.
7. Bracken, M.E.S., C.A. Gonzalez-Dorantes[*], & J.J. Stachowicz. 2007. Whole-community mutualism: associated invertebrates facilitate a dominant habitat-forming seaweed. Benthic Ecology Meeting, Atlanta, Georgia.
6. Bracken, M.E.S., B.E. Bracken, & L. Rogers-Bennett. 2006. Potential fisheries benefits of diverse, functioning marine ecosystems. Symposium on *Ecological interactions useful for marine ecosystem-based management*. California Cooperative Oceanic Fisheries Investigations (CalCOFI) Annual Conference, Monterey, California.
5. Bracken, M.E.S. & J.J. Stachowicz. 2005. Top-down modification of bottom-up processes: herbivory reduces macroalgal nitrogen uptake. Western Society of Naturalists Annual Meeting, Seaside, California.

4. Bracken, M.E.S. & J.J. Stachowicz. 2004. Linking macroalgal diversity and marine ecosystem functioning. Symposium on *Linking community and ecosystem approaches in coastal systems*. Western Society of Naturalists Annual Meeting, Rohnert Park, California.
3. Bracken, M.E. 2002. Nitrogen loading by invertebrates increases growth of intertidal seaweeds. Western Society of Naturalists Annual Meeting, Monterey, California.
2. Bracken, M.E. 2000. Invertebrate-excreted ammonium as a nitrogen source for intertidal seaweeds. Western Society of Naturalists Annual Meeting, Portland, Oregon. (Best Student Paper award)
1. Bracken, M.E., B.A. Menge, & M.M. Foley. 2000. Potential influences of nearshore oceanographic conditions on mussel physiological ecology and benthic algal biomass accumulation in New Zealand intertidal communities. Pacific Ecology Conference, Friday Harbor, Washington.

C. Press Coverage

KCAW Radio, Sitka, Alaska, July 16, 2023. Sitka Nature Show #293: "Matt Bracken."
Mashable, October 22, 2022. "Billions of crabs vanished, and scientists have a good clue why."
Univision, February 10, 2022. "La temperatura de los océanos ya alcanzó el 'punto de no retorno'. Esto es lo que significa."
Orange County Register, October 14, 2021. "OC oil spill was likely about 25,000 gallons, Coast Guard officials said Thursday."
Los Angeles Times, October 12, 2021. "The O.C. oil spill could have been a much bigger disaster. Here is what went right."
Orange County Register, October 12, 2021. "Weather is warming, surf is up – is it safe to go to the beach?
Fast Company, October 8, 2021. "They really do use dish soap to save oil-covered seabirds."
Los Angeles Times, October 7, 2021. "Oil spill puts spotlight on the magic and fragility of California's coast."
The Weather Channel, October 5, 2021. "California spill triggers state of emergency."
Sitka Sentinel, June 19, 2020. "Climate connection."
The Guardian, June 11, 2019. "Meet the 'star ingredient' changing fortunes in Alaska's waters: seaweed."
Hakai Magazine, November 2, 2018. "A scientist found a kelp on a worm in a hole in the mud in the bottom of the sea."
ABC7 Eyewitness News, May 19, 2017. "Newport Beach feeling clammy after mollusk invasion."
CBS News, November 30, 2016. "What are these strange, squishy objects washing ashore?"
Hakai Magazine, January 7, 2016. "Testing climate change in a tide pool."
Orange County Register, December 3, 2014. "Storm dampens spirits, but little else."
KCAW Radio, Sitka, Alaska, July 20, 2014. Sitka Nature Show #58: "Matt Bracken and Cascade Sorte."
KCAW Radio, Sitka, Alaska, July 9, 2014. NPR Morning Edition interview: "Science and tide pools."
Boston Globe, December 23, 2012. "Invasive seaweed spreads along east coast."
Scientific American, November 30, 2012. "Aggressive seaweed spreads along east coast."
Chicago Tribune, November 30, 2012. "Brought in ballast, aggressive seaweed spreads along east coast."
Maine Public Broadcasting Network (NPR Radio), November 1, 2012. "Divers find invasive red Asian seaweed off Cape Elizabeth."
The Working Waterfront, October 31, 2012. "Invasive seaweed creeping up Maine coast."
Gloucester Times, August 24, 2012. "Manchester tackles beach's red seaweed."
Providence Journal, August 22, 2012. "Scientists fear an invasive seaweed will threaten RI marine life."
WGBH-TV, July 3, 2012. "Asian seaweed invades Massachusetts."
Old Colony Memorial, Plymouth, June 30, 2012, "Invasive species not good news for coastal community."
Boston Globe, June 28, 2012. "Foul seaweed invades Bay State's shoreline."
Nature Climate Change, April 2012. "Biodiversity: Rarity value."
Nature, August 20, 2009. "News feature: Rack and field."

Trends in Ecology & Evolution, August 2008. "Advancing realism in biodiversity research."
Science, February 15, 2008. "Editors' choice: The more the merrier."

V. Teaching & Advising

A. Courses

a. Taught at UC Irvine

Spring 2023: Marine Biology (Bio Sci E120). Co-taught with Prof. C. Sorte. 254 Students.
Winter 2023: Topics and Careers in Ecology and Evolution (Bio 2E). 9 Students.
Winter 2023: Ecology Group Seminar (Eco Evo 221). 3 Students.
Fall 2022: Processes in Ecology and Evolution (Bio Sci E106). 299 Students.
Spring 2022: Marine Biology (Bio Sci E120). Co-taught with Prof. C. Sorte. 189 Students.
Winter 2022: Topics and Careers in Ecology and Evolution (Bio 2B). 7 Students.
Fall 2021: Processes in Ecology and Evolution (Bio Sci E106). 358 Students. Taught remotely due to COVID-19 pandemic.
Spring 2021: Marine Biology (Bio Sci E120). Co-taught with Prof. C. Sorte. 137 Students. Taught remotely due to COVID-19 pandemic.
Fall 2020: Processes in Ecology and Evolution (Bio Sci E106). 196 Students. Taught remotely due to COVID-19 pandemic.
Spring 2020: Processes in Ecology and Evolution (Bio Sci E106). 123 Students. Taught remotely due to COVID-19 pandemic.
Spring 2019: Plant Biology (Eco Evo 221, "Ecology Group"). 8 Students.
Spring 2019: The Life Aquatic (Bio Sci 2B). 9 Students.
Spring 2019: Marine Biology (Bio Sci E1230). Co-taught with Prof. C. Sorte. 189 Students.
Fall 2018: Processes in Ecology and Evolution (Bio Sci E106). 94 Students.
Spring 2018: Marine Biology (Bio Sci E120). Co-taught with Prof. C. Sorte. 188 Students.
Fall 2017: Processes in Ecology and Evolution (Bio Sci E106). 78 Students.
Spring 2017: Marine Biology (Bio Sci E120). Co-taught with Prof. C. Sorte. 163 Students.
Fall 2016: Processes in Ecology and Evolution (Bio Sci E106). 77 Students.
Spring 2016: Marine Biology (BIO SCI E120). Co-taught with Prof. C. Sorte. 100 Students.
Fall 2015: Processes in Ecology and Evolution (Bio Sci E106). 116 Students.
Fall 2015: Plant Ecology (Eco Evo 221, "Ecology Group"). 12 Students.
Spring 2015: Marine Biology (BIO SCI E120). Co-taught with Prof. C. Sorte. Enrollment: 98 Students.
Fall 2014: Processes in Ecology and Evolution (Bio Sci E106). 121 Students.
Spring 2014: Processes in Ecology and Evolution (Bio Sci E106). 91 Students.

b. Taught elsewhere

Northeastern University
Spring 2012: Concepts & Trends in Evolution & Ecology (BIOL 6403).
Summer 2011-2013: Science Communication and Ethics (BIOL 8507).
Spring 2010-2013: Marine Biology (BIOL 2325).
Spring 2010: Ecology in the News (BIOL 7384).
Fall 2009-2013: Marine Ecology (BIOL 5515).
Spring 2008: Classics and Neoclassics in Ecology (BIO G 384).

UC Davis
Spring 2005: Ecological Stoichiometry Seminar.

c. Guest lectures at UC Irvine

Spring 2020: Marine Biology
Fall 2015: Population and Community Ecology.
Spring 2014: Global Environmental Issues.

d. Guest lectures elsewhere

Spring 2022: Marine Algal Biology (BIO 441). Bard College.
Spring 2021: Global Skills (BIO 3436). University of Exeter, United Kingdom.
March 2015: Global Change Biology (graduate-level module). University of Canterbury, New Zealand.
March 2015: Ecology (5 lectures). University of Canterbury, New Zealand.
Spring 2013: Invasive Species: Evolution, Ecology & Management. University of Massachusetts, Boston.
Fall 2012 & Spring 2013: Climate Change. Emerson College.
Fall 2012: Marine Biology. Northeastern University.
Fall 2012: Introduction to Marine Biology. Northeastern University.
Fall 2012: Invasive Species: Ecology, Impacts, and Human Dimensions. Emerson College.
Fall 2011: Experimental Design in Ecology. Brown University.
Fall 2010: Ecology. Northeastern University.
Fall 2008: Biology/Biochemistry at Northeastern. Northeastern University.
Fall 2008: Evolution of Life Histories. Northeastern University.
Fall 2008: Marine Invertebrate Zoology. Northeastern University.
Spring 2006 & 2007: Population Biology & Ecology of Marine Organisms. UC Davis.
Fall 2003: Ecology. University of Puget Sound.
Spring 2001-2003: Marine Biology. Oregon State University.

B. Supervision of Graduate Students

a. PhD students (7)

Beatriz Alejandra Rios Rojas, Ph.D. student, UC Irvine. Fall 2021-present
Raechel Hill, Ph.D. candidate, UC Irvine. Summer 2019-present
Lauren Lees, Ph.D. candidate, UC Irvine. Fall 2018-present
Samuel Bedgood, Ph.D. Ecology and Evolutionary Biology, 2021. UC Irvine: *Interactions among sea anemones, their algal endosymbionts, and associated communities on California rocky intertidal shores*
Laura Elsberry, Ph.D. Ecology and Evolutionary Biology, 2019. UC Irvine: *Drivers of marine biodiversity along a latitudinal gradient*
Kylla Benes, Ph.D. Ecology and Evolutionary Biology, 2016. UC Irvine: *Geographic variation in intraspecific differentiation of a marine primary producer*
Christine Ramsay-Newton, Ph.D. Ecology and Evolution, 2015. Northeastern University: *Early strategies of invasive seaweeds: the recent invasion of* Dasysiphonia *(formerly, "*Heterosiphonia*")* japonica *to the western North Atlantic Ocean*.

b. M.S. students (2)

Brendan Gillis, M.S. Biology, 2014. Northeastern University: *The effects of increased oceanic CO_2 on tide pool communities.*
Valerie Perini, M.S. Biology, 2013. Northeastern University: *The role of seasonal fluctuations, seaweed traits, and seaweed-herbivore interactions on nutrient cycling in the southern Gulf of Maine*.

c. Professional M.S. in Marine Biology students at Northeastern University (6)

Victoria Selesnick (2013), Emily Roberts (2011), Brian Taggart (2010), Robyn Zerebecki (2009), Marcy Cockrell (2009), and Adam Fuller (2008).

d. Visiting graduate students (2)

Andrea Paz-Lacavex (M.S., University of California, Santa Cruz). Summer of 2021
Annick Drouin (Ph.D., Laval University, Quebec). Summers of 2011 & 2012

C. Supervision of Undergraduate Student Research

a. UC Irvine students (20)

Sydney Jordan. Fall 2022-Spring 2023. Bio Sci 199 Undergraduate Research.
Joshua Lu. Fall 2021-Spring 2023. Bio Sci 199 Undergraduate Research, UROP Graduate Student Summer Research Team Member.
Calvin Huang. Winter 2021-Winter 2023. Bio Sci 199 Undergraduate & UROP Research, UROP Graduate Student Summer Research Team Member.
Sierra LeTorneau. Fall 2021-Spring 2022. Bio Sci 199 Undergraduate Research.
Misha Wahie. Winter 2020-Spring 2021. Bio Sci 199 Undergraduate Research.
Alex Caramagno. Winter 2020-Spring 2021. Bio Sci 199 & UROP Research and Bio Sci Excellence in Research.
Natalie Strasburg. Fall 2019-Summer 2021. Bio Sci 199 and Federal Work-Study Research and SURP Research Fellow.
Alan Yue. Summer 2019. UROP & SURP Research.
Gabriela Morton. Winter 2019-Spring 2019. Bio Sci 199 Undergraduate Research.
Cassidy Purcell. Fall 2018-Summer 2019. Bio Sci 199, UROP, & SURP Research.
Queenie Baetiong. Fall 2018-Spring 2019. Bio Sci 199 Undergraduate Research.
Jessica Garibay. Fall 2018-Spring 2019. Bio Sci 199 Undergraduate Research.
Matthew Barna. Spring 2018. Bio Sci 199 Undergraduate Research.
Samantha Klombies. Fall 2017-Spring 2018. Bio Sci 199 Undergraduate Research.
Stephanie Nava. Fall 2017-Spring 2018. Bio Sci 199 Undergraduate Research.
Brianne Nguyen. Spring 2017-Spring 2018. Bio Sci 199, UROP, & SURP Research & Honors Thesis.
Alex Badten. Fall 2016-Spring 2017. Bio Sci 199 & UROP Research.
Jill Oates. Fall 2016-Spring 2018. Bio Sci 199 & UROP Research, Honors Thesis, & Bio Sci Excellence in Research.
Victor Ya. Fall 2016-Spring 2017. Bio Sci 199 Undergraduate Research.
Rachel Chatfield. Fall 2015-Spring 2016. Bio Sci 199 Undergraduate Research.
Robin Fales. Spring 2014-Spring 2016. Bio Sci 199 Undergraduate Research.

b. Students from other colleges and universities (13)

Nathan Sinn, Summer 2023. NSF-ATE Scholar, Mt. San Antonio College.
Marcus Lira Campaigniac. Summer 2021. NSF-ATE Scholar, Mt. San Antonio College.
Celeste Chen. Summer 2019. Kolenkow-Reitz Fellow, Carleton College.
Natalie Strasburg. Summer 2018. STEM TP2 Program, Mt. San Antonio College.
Alan Yue. Summer 2017. STEM TP2 Program, Mt. San Antonio College.
Margaret Wisniewski. Fall 2012. Northeastern University Undergraduate Research
Isaac Rosenthal. Summer 2012. Northeastern University Undergraduate Research
Natalie Low. Summer 2010. Summer Intern (Brown University)
Valerie Perini. Spring 2010. Northeastern University Undergraduate Research
Alexander Ramsower. Summer 2008. Bodega Marine Lab REU

Sara Friberg. Summer 2006. Bodega Marine Lab REU
Ambre Chaudoin. Summer 2005. Bodega Marine Lab Intern
Melinda Faubel. Summer 2005. Bodega Marine Lab Intern
Cirse Gonzalez. Summer 2005. Bodega Marine Lab REU

D. Advising Activities

a. Current UC Irvine doctoral committees (3)

Kristin Barbour (Ph.D. candidate), Karina Brocco French (Ph.D. candidate), Emily Martin (Ph.D. student)

b. UC Irvine candidacy committees (12)

Claire Freimark (2023, Ecology and Evolutionary Biology), Newton Hood (2023, Ecology and Evolutionary Biology), Skylar Gerace (2022, Earth System Science), Adam Fagan (2021, Earth System Science), Megan Sullivan (2021, Earth System Science), Ashton Bandy (2021, Earth System Science), Christopher McGuire (2020, Earth System Science), Raisha Lovindeer (2018, Earth System Science), Emma Reid (2017, Civil and Environmental Engineering), Catherine Garcia (2016, Earth System Science), Stephen Holmbo (2016, Chemistry), Alyssa Kent (2014, Ecology and Evolutionary Biology)

c. Current outside committees (2)

Matthew Elliott, Moss Landing Marine Labs
Ariel Gilligan, CSU Long Beach

d. Previous student committees (21)

Racine Rangel (Ph.D. 2023, UC Irvine), Samuel Mahanes (Ph.D. 2022, UC Irvine), Shaun Stipp (Ph.D. 2020, UC Irvine), Piper Wallingford (Ph.D. 2020, UC Irvine), Annika Nelson (Ph.D. 2019, UC Irvine), Allison Moreno (Ph.D. 2019, UC Irvine), Lauren Pandori (Ph.D. 2019, UC Irvine), Samantha Leigh (Ph.D. 2019, UC Irvine), Brian Stirling (M.S. 2018, CSU Long Beach), Cee Nell (Ph.D. 2018, UC Irvine), Kevin Rothstein-Kightly (M.S. 2016, UC Irvine), Elizabeth Hemond (Ph.D. 2014, Northeastern University), Sarah Close (Ph.D. 2014, Oregon State University), Catherine Matassa (Ph.D. 2014, Northeastern University), Elizabeth Bryson (Ph.D. 2013, Northeastern University), David Combosch (Ph.D. 2013, Northeastern University), Sean Kent (M.S. 2013, Northeastern University), Elizabeth (Hanlon) Sly (M.S. 2013, Northeastern University), Genevieve Bernatchez (M.S. 2012, Northeastern University), Carmel Norman (M.S. 2012, Northeastern University), Meredith Doellman (M.S. 2010, Northeastern University), Yen-Chun Liu, (Ph.D. 2009, Northeastern University)

e. External examiner / opponent (2)

Åsa Austin, Ph.D. (2022) Stockholms Universitet, Sweden
Arthur Riedel, Ph.D. (2014) University of Queensland, Australia

f. Postdoctoral scholars (4)

Dr. Robin Fales (Ph.D., University of Washington). 2023-present.
Dr. Lauren Pandori (Ph.D., UC Irvine) 2020. Now Marine Biologist at Cabrillo National Monument.
Dr. Amy Henry (Ph.D., University of Chicago) 2018. Now Project Scientist and Adjunct Faculty at UC Irvine.
Dr. James Douglass (Ph.D., Virginia Institute of Marine Science, College of William and Mary) 2010-2012. Now Associate Professor at Florida Gulf Coast University.

VI. Service and Professional Development

A. Service to the University

School of Biological Sciences Executive Committee (2014-2015, 2022-2024; Vice-Chair 2023-2024)
Admissions Committee, Master's in Conservation and Restoration Science, Department of Ecology & Evolutionary Biology (2023)
Reviewer, UC President's Postdoctoral Fellowship Program (2017, 2019, 2023)
Anti-Racism, Diversity, Equity, & Inclusion Council, Department of Ecology & Evolutionary Biology (2021-2023)
Weekly Seminar Series Committee Chair, Department of Ecology & Evolutionary Biology (2020-2023)
Panelist, UCI Illuminations: Ocean Research-Creation (April 2022)
Hellman Fellowship Advisory Panel, Office of Academic Personnel (June 2021)
Planning team and event facilitator, Diving Deep: Dialogues on Environmental Justice, School of the Humanities (Winter-Spring 2021)
Graduate Admissions Committee, Department of Ecology & Evolutionary Biology (2020-2022)
Anti-Racism, Diversity, Equity, & Inclusion Working Group, Department of Ecology & Evolutionary Biology (2020-2021)
"Anteater Parade" Leader, School of Biological Sciences. Met with new students (Freshmen & transfer students) weekly to introduce them to campus during the COVID-19 pandemic (Fall 2020)
Joint Faculty Retreat Committee, Schools of Biological Sciences and Medicine (2019)
School of Biological Sciences Awards Committee (2017-2019)
Moderator, UC Irvine Coastal Resilience Workshop (July 2017)
Roundtable on Enhancing Coordination and Integrating Water Quality Protection in California's Marine Protected Areas. Center for Land, Environment, and Natural Resources, UC Irvine School of Law (January 2017)
Reviewer, UCI Office of Research Single and Multi-Investigator Research Projects (2016)
UCI OCEANS Executive Committee (2015-2018)
UCI OCEANS Graduate Student Fellowship Committee, Chair (2015-2017)
Speaker, Chief Executive Roundtable Crystal Cove Research Expedition (October 2014)

B. Service to the Discipline

Editorial Board Member, *Ecology* (2023-present)
Recommender, *Peer Community in Ecology* (2018-present)
Editorial Board Member, *Scientific Reports* (2019-present)
Subject Editor, *Oikos* (2011-present)
National Science Foundation Panelist
  Biological Oceanography Program Solicitation (2015)
  Dimensions of Biodiversity Program Solicitation (2010)
California Sea Grant / California Ocean Science Trust Panelist
  South Coast Baseline Proposal Final Reports (2014)
  South Coast Marine Protected Area Baseline Proposal Solicitation (2011)
Papers reviewed (185 total) for *American Naturalist*, *Aquatic Biology*, *Aquatic Conservation: Marine and Freshwater Ecosystems*, *Biodiversity and Conservation*, *Biological Bulletin*, *Biological Invasions* (2), *BMC Ecology*, *Bulletin of Marine Science*, *Conservation Biology*, *Diversity & Distributions* (3), *Ecography*, *Ecological Monographs*, *Ecology* (30), *Ecology Letters* (12), *Ecological Applications* (3), *Ecosphere* (2), *Frontiers in Ecology and the Environment*, *Frontiers in Marine Science*, *Functional Ecology* (4), *Global Ecology and Biogeography* (4), *Journal of Applied Phycology*, *Journal of Coastal Conservation*, *Journal of Ecology* (11), *Journal of Experimental Marine Biology and Ecology* (5), *Journal of the Marine Biological Association* (2), *Journal of Phycology* (12), *Journal of the Royal*

Society Interface, *Journal of Sea Research*, *Journal of Zoology*, *Limnology and Oceanography* (2), *Marine Biology* (5), *Marine Ecology Progress Series* (16), *Nature Climate Change*, *Northeastern Naturalist* (2), *Oecologia* (13), *Oikos* (13), *Peer J*, *Phycologia*, *PLoS ONE* (10), *Proceedings of the Royal Society B* (4), *Proceedings of the National Academy of Sciences USA*, *Science Advances*, *Science of the Total Environment*, *Scientific Reports* (3), and *Trends in Ecology and Evolution* (4)

Grants reviewed (33 total) for the National Science Foundation (16 for the Division of Ocean Sciences, 2 for Dimensions of Biodiversity, 1 for the Division of Environmental Biology, 1 for the Division of Integrative & Organismal Systems, 1 for the International Research Fellowship Program, 1 for the Arctic Sciences Division, and 1 for EPSCoR), CAMEO – NSF/NOAA (1), National Environment Research Council - UK (2), California Sea Grant (1), New York Sea Grant (1), Oregon Sea Grant (2), Washington Sea Grant (1), and MIT Sea Grant (2).

Textbooks reviewed: Bertness, Bruno, Silliman, & Stachowicz, *Marine Community Ecology*, 2nd ed.; Levinton, *Marine Biology: Function, Biodiversity, Ecology*, 4th ed; Hurd, Harrison, Lobban, & Bischoff, *Seaweed Ecology and Physiology*, 2nd ed.

Diversity Mentor, Western Society of Naturalists Annual Meeting (November 2020)

Judge, student paper and poster competitions: Benthic Ecology Meeting (2010, 2012); Ecological Society of America Annual Meeting (2011); Coastal and Estuarine Research Federation Biennial Meeting (2009); Western Society of Naturalists Annual Meeting (2008, 2014, 2018, 2020, 2022)

Session chair, Western Society of Naturalists Annual Meeting (2008, 2014, 2015, 2020, 2022)

Invited panelist on careers in biology, Green Mountain College, Poultney, Vermont (April 2009)

C. Service to the Nation

Advisor, U.S. House Committee on Natural Resources. Provided information on the extent and impacts of the invasive seaweed *Dasysiphonia japonica* along the New England coastline (2012)

D. Service to the State

Member, Expert Assessment Group for the Green List (EAGL) to evaluate the potential for inclusion of California's Marine Protected Area Network on the International Union for the Conservation of Nature (IUCN) Green List (2018-present)

Participant, Orange County Oil Spill Townhall with California State Assemblywoman Cottie Petrie-Norris (2021)

Working Group Member, California Ocean Science Trust Workshop on "Exploring Aquatic Vegetation as an Ocean Acidification Management Tool in California." Our findings were presented at a hearing at the state capitol hosted by the California Assembly Select Committee on Coastal Protection and Access to Natural Resources (2017)

E. Service to the Community

Scientific content expert, *Elinor Wonders Why*, a series on PBS Kids that introduces children to science, nature, and community (2019-2023)

Orange County Marine Protected Area Council
- Research Committee Co-chair (2017-2019, 2021-2023)
- UC Irvine representative (2015-2020, 2023)
- Individual member (2020-2023)

Moderator, Panel on *Human and More-Than-Human Relationships with the Ocean*, Orange County Museum of Art (2022)

Advisory panel member, *Sea Change: Art Effecting Change in the Pacific Ocean*, Orange County Museum of Art (2020-2022)

Environmental Advisory Council, Tammy Kim, Vice Mayor, Irvine, California (2020-2021)

Guest expert, Sitka Sound Science Center tidepool walk (2021)
Science consultant, North Star Games (*Evolution, Evolution Climate, Evolution Flight*) (2021)
Organized and taught a hands-on module on photosynthesis, respiration, and ocean acidification. "Food to Fire" day camp, Sitka Sound Science Center, Alaska (2019)
Species expert, Gulf of Maine Research Institute *Vital Signs* Network for monitoring invasive species (2012-2019)
Host laboratory, Valencia High School visit to UC Irvine, Targeted Instruction Generating Excitement about Research and Science (2017)
"Adopt a Scientist" penpal for elementary school student (2017)
Scientist-in-Residency Fellow, Sitka Sound Science Center, Alaska. Community outreach included organizing and teaching a week-long marine biology day camp for elementary school students and meeting with elementary school teachers about incorporating the scientific method into early childhood education (2014)
Demonstrations on ocean acidification, Estuary Awareness Day, Back Bay Science Center, Newport Beach, California (2014)
Demonstrations illustrating the importance of marine biodiversity, Biodiversity Day, Museum of Science, Boston, Massachusetts (2012)
Hands-on presentation on seaweed functional importance and biodiversity, Stanley Elementary School, Swampscott, Massachusetts (2012)
Lectures, demonstrations, and field trips related to marine biodiversity, Coastal Ocean Science Academy, a summer program for greater Boston high school students, Marine Science Center, Northeastern University (2011)
Presentations on marine biodiversity conservation, annual Open House, Marine Science Center, Northeastern University (2007-2011)
Hands-on demonstrations of marine organisms, Early Learning Center, Lynch/van Otterloo YMCA, Marblehead, Massachusetts (2008-2010)

F. Professional Development

Certificate for Engaged Instruction and participant in the Active Learning Institute, Division of Teaching Excellence and Innovation, UC Irvine (2023)
Preparing for inclusive practices: preventing and managing discrimination, sexual harassment, and sexual violence in the field, UCI Nature and Office of Equal Opportunity and Diversity, UC Irvine (2023)
Squash the biases: Black Lives Matter & cultural awareness, Office of Access and Inclusion, UC Irvine (2021)
Education research using R, Division of Teaching Excellence and Innovation, UC Irvine (2019)
Faculty pedagogical reading groups, Division of Teaching Excellence and Innovation, UC Irvine (2017-2018)
"LIFE-ECOPOTENTIAL" Meeting on Ecosystem Management of Protected Areas, UC Irvine (2016)
Faculty-graduate student collaborative workshop on concept mapping, Centers for Ocean Sciences Education Excellence (2012)
Effect of global change on carbon sequestration and food web structure across ecosystems. Symposium and workshop participant, Oldenburg and Wilhelmshaven, Germany (2009)
Comparing trophic structure across ecosystems. Working group participant, National Center for Ecological Analysis and Synthesis (NCEAS), Santa Barbara, California (2005-2008)
Dissertations Initiative for the Advancement of Limnology and Oceanography (DIALOG VII) Symposium participant. Dauphin Island Sea Lab, Alabama (2005)