

Susanne M. Brander, Ph.D.
Promotion and Tenure Vita

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A. Education and Employment Information

Education

- 2011 Ph.D. Toxicology. University of California, Davis
- 2005 M.S. Environmental Science and Policy. Johns Hopkins University, MD
- 1999 B.S. Business Administration, Minor: Biology. Elizabethtown College, PA

Employment History

- 2020 – present Assistant Professor, College of Agricultural Sciences, Oregon State University, Corvallis, OR (*tenure-track*)
- 2017 - present Adjunct Professor, Department of Biology and Marine Biology, University of North Carolina, Wilmington, NC
- 2017 – 2020 Assistant Professor Sr. Research, College of Agricultural Sciences, Oregon State University, Corvallis, OR
- 2013 – 2017 Assistant Professor, Department of Biology and Marine Biology, University of North Carolina, Wilmington, NC (*tenure-track*)
- 2012 – 2013 Research Assistant Professor, Department of Biology and Marine Biology, University of North Carolina, Wilmington, NC
- 2012 - 2013 Post-Doctoral Scholar, School of Veterinary Medicine, Department of Anatomy, Physiology and Cell Biology, University of California, Davis / Department Biology and Marine Biology, University of North Carolina Wilmington
- 2011 – 2012 Adjunct Professor, Department of Biology and Marine Biology, University of North Carolina, Wilmington, NC

2007 – 2011	Delta Science Pre-Doctoral Fellow, Department of Environmental Toxicology and Bodega Marine Laboratory, University of California, Davis, CA
2009 – 2010	National Science Foundation, CAMEOS, GK-12 Pre-Doctoral Fellow, Bodega Marine Laboratory, University of California, Davis, CA
2007	Graduate Student Researcher, Water Quality Objectives Methodology, Department of Environmental Toxicology, University of California, Davis.
2004 – 2006	Project Scientist / Environmental Analyst, Weston Solutions, Inc., Tiburon, CA

B. Teaching, advising, and other assignments

I have been teaching undergraduate and graduate-level courses since 2011, starting at UNC Wilmington, while I was also a post-doctoral scholar. Here I led key high-enrollment courses for pre-health and biology majors. Since arriving at OSU, teaching has been a smaller component of my duties (10% of FTE in my position description from 2017-2020, 25% of FTE from 2020 onwards). From 2017-2020 I sought to teach beyond this 10% FTE responsibility in anticipation that this expectation would increase beyond 2020. During my first three years at OSU I have primarily taught for the Marine Studies Initiative at OSU, developing a transdisciplinary course for the new major that included elements from the marine sciences, class literature, as well as history. I also co-led a graduate seminar in one of my main research areas and gave guest lectures in ecotoxicology (six lectures total) and marine resources management (2 lectures total). I consistently strive to convey material and to stimulate intellectual development across a diversity of subject areas via lecture and facilitating discussions, as well as by flipping the classroom when appropriate to further engage students. During my six years of teaching at UNCW I was deeply involved with their applied learning community, and initiated teaching at OSU by participating in a transformative curriculum workshop intended to enhance transdisciplinary approaches. Since my teaching has been transdisciplinary across my entire career, these themes continue to inform my strategies for teaching both undergraduate and graduate students. In addition to developing and teaching many courses, I have advised a large number of undergraduates between UNCW and OSU, and currently participate in the NSF REU program at the OSU Hatfield Marine Science Center (for 3 years), the SURE (Summer Undergraduate Research Experience) Science scholarship program through Integrative Biology (2 years) and the new VIEW undergraduate internship program that aims to recruit underrepresented students to work in research labs.

a. Credit courses

Primary instructor, OSU

	Title	Credit hours	Students	Term
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FW 230X ^{1,3}	Humans and the Ocean	3	3 UG	S19
TX 599/699 ^{2,3}	Micro and Nanoplastic Occurrence and Effects	1	25 G	F19
HC 407 ¹	Humans and the Ocean	2	4 UG	S20
MAST 201 ^{1,4}	Humans and the Ocean	3	7 UG	W21

¹ Humans and the Ocean was developed to be a foundational course for the Marine Studies (MAST) major. It has been offered twice under different course numbers in advance of the major being approved, first offering under MAST major was in winter 2021

² Co-taught with Dr. Stacey Harper

³ Peer teaching evaluations (EMT format) are available for these courses

⁴ A peer review committee evaluation through FW is available for MAST 201

Guest lectures, OSU

		Title	Credit hours	Students	Term
TX	455/555 ¹	Ecotoxicology: Aquatic Ecosystems	3	10 UG	W18
TX	455/555 ¹	Ecotoxicology: Aquatic Ecosystems	3	10 UG	W19
TX	455/555 ¹	Ecotoxicology: Aquatic Ecosystems	3	10 UG	W20
TX	455/555 ¹	Ecotoxicology: Aquatic Ecosystems	3	10 UG	W21
NRT	IFC	NSF Research Traineeship Intensive Field Course	3	10 G	F19
MRM	530	Principles and Practice of Marine Resource Management	3	12 G	W20
MRM	530	Principles and Practice of Marine Resource Management	3	12 G	W21

¹ A peer teaching evaluation (EMT format) is available for this course

Primary instructor, prior to OSU (all at UNCW)

		Title	Credit hours	Students	Term
BIO	448	Toxicology ¹	3	40 UG	S17
BIO	495	Beyond DNA ¹	1	12 UG	S17
BIO	459	Endocrinology ²	3	53 UG	F16
BIO	585	Adv Top: Endocrinology ²	3	2 G	F16
BIO	495	Beyond DNA ¹	1	12 UG	F16
BIO	485	Adv Top: Toxicology ¹	3	22 UG	S15
BIO	459	Endocrinology ²	3	61 UG	F15
BIO	495	Beyond DNA ¹	1	12 UG	F15

BIO 201	Principles Biology: Cells	4	146 UG	S14
BIO 495	Beyond DNA ¹	1	11 UG	S14
BIO 493	Bio Lab Teaching Practicum	2	2 UG	S14
BIO 459	Endocrinology ²	3	54 UG	F14
BIO 604	Aquatic Toxicology ¹	2	2 G	F14
BIO 201	Principles Biology: Cells	4	120 UG	S13
BIO 459	Endocrinology ²	3	42 UG	F13
BIO 585	Adv Top: Endocrinology ²	3	1 G	F13
BIO 495	Beyond DNA ¹	1	10 UG	F13
BIO 201	Principles Biology: Cells	4	110 UG	S12
BIO 459	Endocrinology ²	3	45 UG	F11

¹ Classes developed by Brander ²Classes revised by Brander

b. Non-credit courses and workshops

Micro and Nanoplastic Research short course. Pacific Northwest SETAC, February 2020. Co-taught with Dr. Stacey Harper.

Micro and Nanoplastic Research short course. Pacific Northwest SETAC, February 2020. Co-taught with Dr. Stacey Harper.

c. Curriculum development

Having been hired as part of the Marine Studies Initiative, the first course I developed at Oregon State University, Humans and the Ocean, is intended to be a transdisciplinary introductory and foundational class for freshmen in the eventual Marine Studies (MAST) major. It is an introduction to marine systems and the history of human interaction with the ocean from literary and scientific perspectives, with an emphasis on the importance of storytelling in communicating science. This is facilitated via readings from works of fiction and non-fiction as well as sources from the primary scientific literature, with lectures and discussions led by Brander as well as a variety of invited lecturers and speakers across a diversity of backgrounds. The draft syllabus for Humans and the Ocean was a product of a fall 2017 transformative curriculum workshop Brander and other MSI-affiliated faculty participated in, and was further developed by Brander and colleagues from the College of Liberal Arts (Peter Betjemann and Carmel Finley) and CAS (Will White). The first and second installments of the course, led by Brander, have been offered prior to availability of the MAST major, and thus have had low enrollment because it is not yet a required course for any degree program. However, the course has been positively peer-reviewed, and was successfully rolled out as MAST 201 in winter 2021 after the major was approved in late 2020. Another element of curriculum development, done on short notice, is that in both spring 2020 and winter 2021, courses were successfully adapted to the online format due to the ongoing Covid-19 pandemic. Course offerings going forward will be made both on campus and at the Hatfield Marine Science Center, starting in 2022. Brander's increased teaching load with her new position is fully supported by MSI for the next four years. As such she will be developing a second 300-level course intended to be

cross-listed between FW and MAST. I am currently developing my third course at OSU, the Environmental Physiology of Fishes, which is proposed to be offered in 2022. This course is directly related to my research and scholarship, has been offered previously by another faculty member and has had high enrollment, and will solidify my teaching presence in the Dept. of Fisheries, Wildlife, and Conservation Sciences.

d. Graduate and Undergraduate Students and Postdoctoral Trainees

I make a concerted effort on a regular basis to educate my lab and to allow them the opportunity to educate me on matters important to them in terms of DEI, with lab meetings that focus on recent events or opinion pieces held every 3-4 weeks in place research discussions. The idea is to provide an open forum for concerns to be raised and a space for uncomfortable conversations. I am also looking to increase the diversity of my research group and bring on undergraduate researchers each summer through programs that emphasize inclusion of underrepresented groups. As a parent and someone who started a family in graduate school, I am also highly cognizant of the barriers facing early career women and have specifically sought to support students and post-doctoral researchers who are also parents.

Postdoctoral trainees

At Oregon State:

Samreen Siddiqui	2020-present (OSU)
Kaley Major	2018-2020 (OSU)
Amelie Segarra	2019- (co-advised, UC Davis)
Amie Romney	2017-2018 (co-advised, UC Davis)

Prior to Oregon State

Jincy Joseph	2018-2020 (co-advised, UNC Wilmington)
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Graduate students advised

At Oregon State:

Sara Hutton	PhD, EMT	(expected 2024)
John Dickens	MS, MRM	(expected 2022)
Anna Bolm	MS, Fisheries	(co-advised, expected summer 2021)
Katherine Lasdin	MS, Fisheries	(expected spring 2021)
Jennifer Van Brocklin	MS, Fisheries	(expected fall 2021)
Felix Biefel	PhD, Toxicology	(co-advised UC Davis, expected 2024)

Prior to Oregon State (UNC Wilmington, all Marine Biology majors):

Kelsey Billet	MS	2020 (advised remotely)
Bethany DeCourten	PhD	2019 (spent 1.5 yrs at OSU)
Cheyenne Stienbarger	MS	2019 (co-advised)
Samantha Athey	MS	2018
Joshua Forbes	MS	2018
Megan McConville	MS	2017

Andrew Goff	MS	2016
Melissa Heintz	MS	2013 (co-advised)

Graduate students committee member

At Oregon State: (all OSU students unless otherwise noted)

Rhodalyn Tetteh	PhD, ESSP	(U of Oregon, expected 2026)
Erin Lunda	PhD, Fisheries	(expected 2026)
Sebastian Singleton	PhD, Microbiology	(expected 2025)
Jared Stine	PhD, Env Eng	(expected 2025)
Brittany Cunningham	PhD, EMT	(expected 2024)
Yvonne Rericha	PhD, EMT	(expected 2023)
Stephanie Maggio	PhD, EMT	(expected 2022)
Jennifer Van Brocklin	MS, Fisheries	(expected 2021)
Lisa Hildebrand	MS, Fisheries	2020
Claudia Santillan	MS, EMT	2019
Emily Vebrosky	MS, Toxicology	2019 (Louisiana State)

Prior to Oregon State: (all UNCW, Marine Biology majors, unless otherwise noted)

Mekiyah Bailey	MS	2018
John Roberts	MS	2017
Daniel Frank	PhD	2017 (UC Davis, Toxicology)
Lauren Ryan	MS	2015
Melissa Heintz	MS	2013

Graduate students lab rotation

Brittany Cunningham	PhD	2020
Lindsay Wilson	PhD	2019
Yvonne Rericha	PhD	2019
Stephanie Krail	PhD	2018
Claudia Santillan	PhD	2018

Undergraduate students advised

At Oregon State: (9 total)

Jose Robles	VIEW	2021
Samantha Biltgen	NSF REU	2021
Christopher Markgraf	SURE scholar	2020-present
Madison Anderson	BRB program	2020-present
Inex Mangino	NSF REU	2019
Andrew Williams	SURE scholar	2019-2020
Ryan Westling	CEAOS scholar	2019-2020
Anika Agrawal	NSF REU	2018
Jordan Laundry	Beginning CAS	2018
Alexandra Gibbs	Society of Tox	2018

Undergraduate student committees

Taylor Mottern	Honors ENG	2021-present
Kylie Boenisch	Honors ENG	2020

Prior to Oregon State: (all UNCW students) (7 honors theses, 52 Directed Individual Study)

Hunter Roark	Honors thesis	2017
Elizabeth Chason	Directed Individual Study	2017
Kaitlyn Hudson	Directed Individual Study	2017
Todd Lysiak	Directed Individual Study	2017
Allison Leso	Directed Individual Study	2017
Shannon Bryant	Directed Individual Study	2017
Kory Enneking	Directed Individual Study	2016
Griffin Huck	Directed Individual Study	2016
Ryan Harding	Directed Individual Study	2016
Melinda Lambert	Directed Individual Study	2016
Katherine Martin	Directed Individual Study	2016
Ariel Fitzgerald	Directed Individual Study	2016
Adam Keyser	Directed Individual Study	2016
Alexa Chrisos	Directed Individual Study	2016
Cessely Gordon	Honors thesis	2016
Jacqueline Gross	Honors thesis	2015
Samantha Albotra	Honors thesis	2015
Nick Burns	Directed Individual Study	2015
Kelsey Mueller	Directed Individual Study	2015
Nicholas Jernack	Directed Individual Study	2015
Savannah Kennedy	Directed Individual Study	2015
Jonathan Cowart	Directed Individual Study	2015
James Lee	Directed Individual Study	2015
Cessely Gordon	Directed Individual Study	2015
Michael Simmonds	Directed Individual Study	2014
Amanda Cobb	Directed Individual Study	2014
Nicole Burkhead	Directed Individual Study	2014
Jordan Critcher	Directed Individual Study	2014
Samantha Albotra	Directed Individual Study	2014
Julie Hurst	Directed Individual Study	2014
Jacob Rennert	Directed Individual Study	2014
Samian Roy	Directed Individual Study	2014
Christopher Cantrell	Directed Individual Study	2014
William Squires	Directed Individual Study	2014
Jacqueline Gross	Directed Individual Study	2014
Kelsey McManus	Directed Individual Study	2014
Nikolas Newton	Directed Individual Study	2014
Roxanne Diaz	Honors thesis	2014
Kelsey Burnsed	Honors thesis	2013
Breanna DeGroot	Honors thesis	2013

Emily Welch	Directed Individual Study	2013
Courtney Coleman	Directed Individual Study	2013
Rachael Cannon	Directed Individual Study	2013
David Huffman	Directed Individual Study	2013
Rachel Pollara	Directed Individual Study	2013
Jaclyn Zerbato	Directed Individual Study	2013
James Andrews	Directed Individual Study	2013
Andrew Goff	Directed Individual Study	2013
Paige Millsap	Directed Individual Study	2013
Hannah Sipe	Directed Individual Study	2013
Amanda Cobb	Directed Individual Study	2013
Corinne Linder	Directed Individual Study	2013
Ameilia Sosnowski	Directed Individual Study	2013
Andrew Piper	Directed Individual Study	2013
Brooke Conner	Directed Individual Study	2012
Brian Graham	Directed Individual Study	2012
Amanda Jones	Directed Individual Study	2012
Maria Bent	Directed Individual Study	2012
Alexandra Teague	Directed Individual Study	2012

e. Team or Collaborative Efforts

As mentioned above, I developed the Marine Studies course ‘Humans and the Ocean’ with Drs. Betjemann, Finley, and White. This is a truly transdisciplinary course that includes elements of literary exploration, historical interpretations of marine history, as well as readings from peer-reviewed marine science journals. These components are aligned with the stated goals of the Marine Studies Initiative. I am also now a co-PI and co-lead of the Pacific Consortium on Plastics, in collaboration with Dr. Stacey Harper (EMT / ENG) and Dr. Chris Langdon (FWCS/COMES). This is an NSF-funded research grant that now supports several of the Ph.D. students I mentor and serve on the committees of in FWCS and departments outside of FWCS, as well as the University of Oregon, and also helps to partially support undergraduate level research. I also mentor students and early career researchers through a journal club focused on the presence and effects of micro and nanoplastics in the environment, teaching them how to present peer-reviewed articles as well as how to lead academic discussions.

2. Student Evaluation

a. Credit Courses

The OSU Student Evaluation of Teaching (SET) process uses a series of questions to assess student perception of the course itself as well as the contributions of the instructor to the course. The first two questions are summary questions regarding the course overall and the instructor’s contribution. College and departmental means are for the level of class. The maximum score possible on either question was 6.0. No eSETs are available

for 2020 due to the Covid-19 pandemic and the 2-week notice to move all courses online that spring.

Course	Term	Responses	Course rating			Instructor rating		
			Instructor	Dept.	Univ.	Instructor	Dept.	Univ.
TX 599/699	F2019	9/25	5.3	4.9	5.1	5.6	5.1	5.4
MAST 201	W2021	2/7	6.0	5.9	5.2	6.0	5.9	5.5

3. Peer Teaching Evaluation

See attached documents from EMT and FWCS.

4. Advising

My primary advising responsibilities are for my graduate students (EMT, FWCS, MRM) and postdoctoral scholars (at OSU and UC Davis), but I also advise OSU undergraduate students from CAS, CEOAS, and CoS, and advise undergraduates from OSU and elsewhere through the NSF REU and VIEW programs, in addition to serving on the committees of Honors students in Bioengineering and Environmental Engineering. As such, my research program has become truly interdisciplinary during my time at OSU. I currently have four graduate OSU students and a second post-doctoral scholar who started in August 2020. Due to the pandemic, I plan to wait to accept additional graduate students until January of 2022, because Covid-19 restrictions on research make it difficult to increase the number of people in lab spaces as well as interfering with training. On average I have 2-3 undergraduate researchers or volunteers in the lab, mainly supporting the work of graduate students but sometimes leading their own projects. I also have students whose committees I serve on sometimes working in my laboratory, e.g. a graduate student from Microbiology uses our FTIR for polymer identification. My advising style is relatively hands-on, particularly during the first year for Masters students and the first two years for Ph.D. students. I meet weekly with all students individually when together on campus, and during quarantine I have arranged to meet with every student via Zoom for an hour per week as well as having daily interactions via Slack, a team communication app that our group uses for lab and personal communications. We also have weekly lab meetings at which logistical concerns are shared and vetted, as well as the sharing of a paper from the peer reviewed literature. Graduate and undergraduate students take turns choosing and presenting a paper to the group for discussion. The way I lead my group at OSU is similar to how I mentored multiple students (grad and undergrad) for five years at UNCW, although I believe I have grown significantly as a mentor over that time. I strive to demonstrate to students not only how to conduct research, but how to conduct oneself in a professional yet inclusive manner in all activities. I greatly enjoy spending time with my students and we try to add an element of fun to most work activities where possible. I take care to share their achievements and to promote their work on social media and through the Pacific Consortium on Plastics, as appropriate.

5. Other assignments

Research

I conduct federally funded research in two main areas: 1. Soluble contaminants of emerging concern and 2. Micro- and nanoplastic pollution. Regarding the first research area, my focus on chemicals present in run-off and wastewater that contaminate aquatic ecosystems began while I was a project scientist at Weston Solutions and continued as I was a Ph.D. student at UC Davis in the Pharmacology and Toxicology graduate group, working at the UC Davis Bodega Marine Laboratory. My initial interest was on chemicals that interfered with estrogen signaling, but this expanded more broadly over the past fourteen years (since I began graduate studies at UC Davis) to include contaminants of emerging concern across many types (pesticides, pharmaceuticals, etc.) as well as considering the effects of pollutants in the context of climate change (e.g. increased temperature), focusing on adverse effects from the molecular to the population level. During this time I have used the model fish species I developed as a Ph.D. student for the study of environmental stressors with support from the EPA (2 lead PI STAR grants, one begun in 2015, another in 2019) and the state of California (pre-doc fellowship, post-doc, 2 lead PI grants and 1 co-PI grant). I have also worked in other organisms such as juvenile sablefish (oil exposure) and blue crab (pesticide effects). Other projects have included the evaluation of ecosystem services through the measure of gene expression in oysters (NOAA NERR, co-PI). In addition to research, this work has evolved into a role as a member of the Green Ribbon Science Panel for the California Department of Toxic Substances Control. My work is recognized outside of North America, since recently (2021) I was asked to review a grant in Europe (Agencé Nationale De La Recherche, France) on endocrine disruption, and I am regularly asked to review papers on the topics of endocrine disruption and contaminants of emerging concern. I also participate in the OSU HATCH project, W-3045 Mechanisms and Mitigation of Agrochemicals, and am slated to become the next team leader in late 2021.

Secondly, work on microplastics began in 2014 through several undergraduate honors and a Masters theses, also using the model fish species referred to above, which resulted in funding from the NOAA debris program (lead-PI) to expand work to a commercial fishery species (Black seabass) and then the newest funding supporting micro and nanoplastic work through the NSF Growing Convergence Research program (co-PI). Support from the Agricultural Research Foundation has allowed for investigations into microplastic occurrence in PNW marine organisms such as rockfish, mussels, and zooplankton and the building of a local network of microplastics researchers at OSU and nearby institutions (e.g. University of Washington, Seattle Aquarium, Portland State University, UC Davis). This focal area now also includes service as the co-chair of the California Ocean Protection Council's Microplastics Science Advisory Team, and a member of several working groups as part of California's ongoing Microplastics Health Effects Workshop, and international group of experts that has been meeting weekly since late 2020, through spring 2021, to determine a risk assessment framework for ambient and drinking waters in the state. Additionally, I am now part of a team (co-PI) led by Portland State University (PI Elise Granek) and funded by Oregon SeaGrant to facilitate links between research and regulatory processes in Oregon.

Outreach

My outreach activities have historically consisted of giving lectures to community or legislative (regional, state, federal) groups on issues such as pesticide or microplastic pollution, often in the context of other causes of environmental stress (e.g. climate change). A large part of funding through the NSF GCR program supports outreach and the development of a research community via collaboration with the Marine Studies Initiative. Over the past year the Pacific Northwest Consortium on Plastics has connected with efforts in California underway at the San Francisco Estuary Institute, Ocean Protection Council, Southern California Coastal Water Research Project, CA Water Board, and Ocean Science Trust on the study and risk assessment of microplastics in the aquatic environment. I served as a co-chair for a California Ocean Science Trust science advisory panel, generating a report advising state-level actions on microplastic pollution, and serve as a member of multiple working groups as part of the Microplastics Health Effects Workshop (2020-2021). These efforts will influence state-level regulations and monitoring actions for ambient and drinking waters. We are also connected to efforts at the Seattle Aquarium and to research and regulatory efforts in Oregon through a grant led by Portland State University. In early 2021 I gave an online presentation for Rise Above Plastic Pollution Day sponsored by Oregon Surfrider, complementing an in-person briefing on microplastics I had given to the legislature in Salem in 2019. Locally I have given talks to the Deschutes Land Trust (Jan 2021), Tap Talks at a local Corvallis restaurant – Block 15 (2018, 2021), a talk at the Rogue Brewery in Newport (2020), and am also slated to give public talks for the City of Corvallis Parks and Recreation Dept. in summer 2021 and for the Academy of Lifelong Learning in fall 2021. Thus my research program is forging connections locally in Corvallis and along the coast, as well as making connections with important efforts underway in California, Oregon, and Washington. I have also made an effort to give my mentees opportunities to share their research with the public; my post-doc and Ph.D. student gave a group Tap Talk together in March 2021. Note that all talks given after March 2020 are online due to the pandemic. Although we have been limited to networking and presenting online for over a year now, I have made additional efforts to increase my presence on social media platforms commonly used to promote science, such as LinkedIn and Twitter. At the beginning of the pandemic I had approximately 500 followers on Twitter, I now have over 1800, and we have also created an successful online presence for the Pacific Northwest Consortium on Plastics (Twitter, Instagram, Facebook, LinkedIn) via our collaborative group's science communication team. Publications, presentations, infographics (e.g. for Earth Day) and other lab group successes and stories are shared on at least a weekly basis.

Public Presentations

2021 Coastal pollution: It's not just the microplastics. Brander S., Siddiqui S., Hutton S. TapTalk, Block 15 Brewery. March 2021.

- 2021 Microplastics: Brief state of the science, occurrence in Oregon. Brander S. Rise Above Plastic Pollution Day. Oregon Surfrider, Salem, OR. March 2021.
- 2021 Science Friday: Brander lab research on pyrethroid pesticides. Featuring Siddiqui S., Hutton S., Brander S. Twitter. January 2021.
- 2021 Microplastics, and even smaller: What we know and what we don't. Brander S. Deschutes Land Trust. January 2021
- 2020 Microplastics in the environment: Hazard, risk, and regulation. Brander, S.M. Linn-Benton County Community College, Obsidians Club. November 2020.
- 2020 Microplastics: Science and Policy (presentation and panel). Coffin S, Brander S, Telesetsky A. Public Interest Environmental Law Conference. Nov 2020
- 2020 Microplastics in the Environment. Brander S. Oregon Department of Environmental Quality. Hillsborough, OR (webinar). March 2020.
- 2020 Microplastics in the Environment. Brander S. Triad Club, Oregon State University, Corvallis, OR. February 2020.
- 2020 Assessing pollutant impacts in estuarine organisms, with consideration of abiotic factors and the potential for multigenerational effects. Brander S. SF Bay Regional Monitoring Plan Predictive Toxicology Webinar. San Francisco Estuary Institute, Richmond, CA. March 2020.
- 2020 An introduction to the Pacific Northwest Consortium on Plastics. Brander S, Hawkyard M. Oregon Marine Debris Educators Meeting, Oregon Coast Aquarium, Newport, OR. February 2020.
- 2020 Microplastics in the Environment. OSU Marine Resources Management and Corvallis High School extracurricular research group, Corvallis, OR. February 2020.
- 2019 Federal actions to address marine plastic pollution: Reducing or preventing marine plastic pollution through source controls and life-cycle management. Scientific expert. United States Senate Environment and Public Works Committee Briefing. Brander S. January 14, 2019. Hosted by Surfrider and the UCLA School of Law.
- 2019 SustainabiliTEA. Oceans 11 research discussion, Marine Studies Initiative, Corvallis, OR. November 2019.

- 2019 Pollution, Plastics, and Policies: Oh My! Panelist at the State of the Coast Conference, Gleneden, OR. November 2019.
- 2019 Local Solutions to Climate Change. Chaired event / hosted speakers at 500 women scientists Corvallis-sponsored science pub event. Block 15 Southtown, Corvallis, OR. May 2019.
- 2019 Plastics in the Environment. Designed for the World Federation of Science Journalists. Webinar. facilitated by Wiley Publishing. February 2019.
- 2019 Rise Above Plastic Pollution Day. Briefing to State House and Senate committees on the environment. Salem, OR. March 2019.
- 2019 STRAWS documentary panel. Rogue Brewery, Newport, OR. February 2019.
- 2018 Marine plastics, how big is the problem and how can we begin to stem the tide? Tap Talk, Block 15 Brewery. December 2018.
- 2018 Environmental stressors in coastal ecosystems, with a focus on pesticides. Department of Environmental Quality quarterly meeting. November 2018.

Prior to arriving at Oregon State

- 2017 Multiple stressors in estuarine ecosystems. St. James Plantation, Southport, NC. June 2017.
- 2016 Water quality and effects on aquatic organisms. NC Sorosis Society, Guest Speaker. November 2017.
- 2016 An introduction to toxicology. UNCW College Day, Lecturer. Continuing education opportunity for UNCW community. October 2016.
- 2016 Blue crab basics & beyond. UNCW Center for Marine Science Lecture Series, Guest Speaker. Sponsored by the Masonboro National Estuarine Research Reserve. April 2016.
- 2015 Blue crab basics & beyond. UNCW Center for Marine Science Lecture Series, Guest Speaker. Sponsored by the Masonboro National Estuarine Research Reserve. April 2016.

- 2014 Blue crab basics & beyond. UNCW Center for Marine Science Lecture Series, Guest Speaker. Sponsored by the Masonboro National Estuarine Research Reserve. April 2016.
- 2015 From molecules to metapopulations: using native model organisms to gauge the impact of pollutants. UNCW Osher Institute for Lifelong Learning, Guest Speaker. October 2015.
- 2014 An introduction to toxicology. UNCW College Day, Lecturer. Continuing education opportunity for UNCW community. October 2014.
- 2013 From molecules to metapopulations: Using native model organisms to assess endocrine disruption. Cape Fear River Watch, Wilmington, NC. S Brander. September 2013.

Media

- 2021 The plastic predicament. Five Media. Interviewed / quoted. April 2021. <https://fivemedia.com/articles/the-plastic-predicament/>
- 2021 Forest pesticides found downstream in Coastal Oregon waters. Interviewed on Portland State University study. Oregon Public Radio. March 2021. <https://www.opb.org/article/2021/03/17/forest-pesticides-found-downstream-in-coastal-oregon-waters/>
- 2021 Premature or precautionary? California is first to tackle microplastics in drinking water. Cal Matters. Interviewed / quoted on involvement in risk assessment working group. March 2021. <https://calmatters.org/environment/2021/03/california-microplastics-drinking-water/>
- 2021 Stanford analysis shows plastic ingestion in marine fish is a widespread and growing problem. Stanford News. Photo from NOAA-funded research included. February 2021. <https://news.stanford.edu/2021/02/09/plastic-ingestion-fish-growing-problem/>
- 2020 *Tyre chemical drives mystery salmon deaths*. Chemistry World. Interviewed / quoted on Washington State Univ study. December 2020. <https://www.chemistryworld.com/news/tyre-compound-driving-mystery-salmon-deaths-identified-after-years-of-chemical-detective-work/4012851.article>

- 2020 *Troubles for Science Research in the Pandemic*. Living on Earth. National Public Radio. Interviewed (from OPB story). December 2020. <https://www.ehn.org/effects-of-endocrine-disruptors-in-fish-2648218063.html>
- 2020 *Science, interrupted: Oregon research threatened in a pandemic world*. Oregon Public Broadcasting. Interviewed. November 2020. <https://www.opb.org/article/2020/11/30/oregon-science-interrupted-covid-19/>
- 2020 *Hormone-mimicking chemicals harm fish now and their unexposed offspring later*. Environmental Health News. Interviewed along with former Ph.D. student Bethany DeCourten. October 2020. <https://www.ehn.org/effects-of-endocrine-disruptors-in-fish-2648218063.html>
- 2020 *Plastics are messing with fish physiology*. Hakai magazine. Interviewed. August 2020. <https://www.hakaimagazine.com/news/plastics-are-messing-with-fish-physiology>
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- 2019 *Perils and solutions around microplastics explored.* Newport News Times. Interview. April 2019. <https://newportnewstimes.com/article/perils-and-solutions-around-microplastics-explored> (in conjunction with serving on panel at STRAWS documentary) Also featured in *OSU Today*.
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- 2017 *Special Report: GenX, A Toxic Year.* Interview. WHQR. Aired December 2017.
- 2017 *Combination of warmer water, chemical exposure intensifies harmful effects in a coastal fish.* Phys.org. <https://phys.org/news/2017-12-combination-warmer-chemical-exposure-effects.html>. December 2017.
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- 2017 *The role of epigenomics in aquatic toxicology.* Article featured for one month on *Environmental Toxicology and Chemistry* home page carousel.
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- 2017 *Cape Fear River Watch holding community forum.* WECT TV6. Quoted.
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- 2017 *The oceans are drowning in plastic – And no one’s paying attention.* Huffington Post. Interview. http://www.huffingtonpost.com/entry/plastic-waste-oceans_us_58fed37be4b0c46f0781d426
- 2016 *UNCW Researchers’ Work Used in New Documentary.* WWAY TV News (interviewed on “A Plastic Ocean” documentary)
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- 2015 *Fish Tales*. WILMA Wilmington's Successful Women. Monthly Magazine Online Profile Feature. <http://www.wilmaontheweb.com/December-2015/Fish-Tales/>
- 2015 *UNCW awarded \$400K grant from EPA*. Lumina News, Star News, WWAY TV News, Newstral, Epnewswire, Wopular. (Press release regarding EPA STAR early career award)
- 2015 UNCW receives substantial grant from EPA. UNCW website. <http://uncw.edu/news/2015/08/uncw-receives-substantial-grant-from-epa.html>
- 2015 *This Week on Wingspan: Episode 2*. UNCW Wingspan. <http://www.uncwingspan.com> (interview)
- 2015 *Current water issues in North Carolina*. UNCTV – OVEE. Aired September 2015. (interactive online interview) <http://www.unctv.org/content/ovee>
- 2015 *Veterans Organization takes VA Concerns to Washington*. WWAY TV News (interviewed on potential health effects of metal contamination in drinking water at local hospital) <http://www.wwaytv3.com/2015/05/06/veterans-organization-take-va-concerns-to-washington/>
- 2014 *We all live downstream*. UNCTV (University of North Carolina Public Television). NC Science NOW. <http://science.unctv.org/content/we-all-live-downstream> Aired January 2015. (coverage of blue crab research)
- 2013 *Urban fish masculinized by hormone-mimicking chemicals*. Davis Enterprise, Contra Costa Times, Underwater Times, Daily Democrat, eScienceNews, FishBio, Phys.org, Technology.org. (Press release: *PLoS One* 8(9): e74251. doi:10.1371/ journal.pone.0074251).

C. Scholarship and Creative Activity

Time frame	Peer-reviewed Papers and Book Chapters
Since at OSU	21 2 as first author, 15 with students or post-docs as lead author
Prior to OSU	18 11 as first author, 3 with students as lead author

Total	40 publications in 26 journals or books h-index = 19; i10-index = 30; 929 total citations
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1. Publications

The below codes are used to indicate Brander's involvement in each paper:

- \$ resulting from or dependent on grants awarded to Brander as PI or Co-PI since coming to OSU
- IC original scholarly contribution in the form of key ideas and concepts by Brander
- EA original scholarly contribution in the form of application of experimental approach, analytical method, or conceptual framework developed by Brander
- A major contribution by Brander in the form of administering the research program, including planning field and laboratory methods, hiring personnel, organizing schedules, and coordinating efforts of the research team
- F major contribution by Brander to lab work, field work, data collection, and/or data analysis
- W substantial contribution by Brander to the writing of the manuscript (note: for all manuscripts for which I am a co-author, I provide careful review and editing of various drafts – a “W” designation denotes a more substantial contribution)
- *author was a UNCW or OSU graduate or undergraduate student; †author was a student at another institution; **author was an undergraduate, ♦author is a post-doc in Brander lab, § author is a post-doc co-mentored by Brander at another institution

There are several standards for author order in the sciences. For the majority of papers, I typically follow the standard that the first author has conducted most of the research and led the writing of the paper, and the last author is the senior author who conceived the overall work, secured funding, supervised research, and contributed to/mentored the writing process. When I listed as second author I typically contributed key analyses and/or writing.

a. Peer-reviewed

i. Refereed journal publications

Since arriving at Oregon State:

Papers currently in review/revision:

- XX) **Brander, S.M.**, Cunningham, B.* , Dickens, J.* , Lasdin, K*., Plafcan, M.†, Van Brocklin, J.* , Harper, S., Granek, E. (in review). An unexpected snack: Microplastic and nanoplastic toxicity across marine taxa. In: *Plastics in the Sea*. Ed: Shumway, S. Elsevier. (W, IC, \$)
- XX) Hutton, S.J.* , St. Romain, S.J.†, Pedersen, E.I., Siddiqui, S.♦ , Chappell, P.E., White, J.W., Armbrust, K.L., **Brander, S.M.** (in revision). Salinity alters toxicity of a commonly used biocide in a model fish species (*Menidia beryllina*). Submitted to *Toxics*. (W, A, EA, IC \$)
- XX) Stienbarger, C.D.* , Joseph, J.♦ , Athey, S.N.†, Monteleone, B., Watanabe, W., Andrady, A.L., Seaton, P., Taylor, A.R., **Brander, S.M.** (in revision). Direct ingestion, trophic transfer, and physiological effects of microplastics in the early life stages of

Centropristis striata, a commercially and recreationally valuable fishery species. Submitted to *Environmental Pollution*. (W, A, EA, IC \$)

- XX) Granek, E.F., Traylor, S.D.†, Tissot, A.G.†, Hurst, P.T.†, Wood, R.S.†, **Brander, S.M.** (in revision). Clothes encounters of the microfibre kind: the effects of natural and synthetic textiles on organisms. In: *Microplastics: Environmental Problems and Textile Solutions*. Ed. Weis, J. Taylor and Francis. (W, IC, \$)

Papers published:

- 40) Komoroske, L.M., Jeffries, K.M., Whithead, A., Roach, J.L., Britton, M., Connon, R.E., Verhille, C., **Brander, S.M.**, Fange, N.A. 2021. Transcriptional flexibility during thermal challenge corresponds with expanded thermal tolerance in an invasive compared to native fish. *Evolutionary Applications* 14: 931-949. <https://doi.org/10.1111/eva.13172> (IC)
- 39) Shupe, H.J.* , Boenisch, K.M.* , Harper, B.J., **Brander, S.M.**, Harper, S.L. 2021. Effect of nanoplastic type and surface chemistry on particle agglomeration over a salinity gradient. *Environmental Toxicology and Chemistry* (online first): <https://doi.org/10.1002/etc.5030> (IC, \$)
- 38) Segarra A.♦ , Mauduit, F., Amer, N.R., Biefel, F.†, Hladik, M.L., Connon, R.E., **Brander, S.M.** 2021. Salinity changes the dynamics of pyrethroid toxicity in term of behavioral effects on newly hatched Delta Smelt larvae. *Toxics* **9 (2): 40**. <https://doi.org/10.3390/toxics9020040> (IC, \$, EA)
- 37) Derby, A.P.†, Fuller, N.W., Huff Hartz, K.E., Segarra, A.♦ , Connon, R.E., **Brander, S.M.**, Lydy, M.J. 2021. Trophic transfer, bioaccumulation and transcriptomic effects of permethrin in Inland Silversides, *Menidia beryllina*, under future climate scenarios. *Environmental Pollution* 116545. (IC, \$, EA)
- 36) Mundy, P.C.†, Huff Hartz, K.E., Fulton, C.A., Lydy, M.J., **Brander, S.M.**, Hung, T-C., Fangué, N., Connon, R.E. 2021. Exposure to permethrin or chlorpyrifos causes differential dose- and time-dependent behavioral effects at early larval stages of an endangered teleost species. *Endangered Species Research* 44: 89-103. (IC, \$)
- 35) Thessen, A.E., Grondin, C.J., Kulkarni, R.D., **Brander, S.M.**, Truong, L., Vasilevsky, N.A., Callahan, T.J., Chan, L.E., Westra, B., Willis, M., Rothenberg, S.E., Jarabek, A.M., Burgoon, L., Korrick, S.A., Haendel, M.A. 2020. Community approaches for integrating environmental exposures into human models of disease. *Environmental Health Perspectives* 128 (12): 125002. (IC)
- 34) Mundy, P.C.†, Carte, M.F., **Brander, S.M.**, Hung, T-C., Fangué, N., Connon, R.E. 2020. Bifenthrin exposure causes hyperactivity in early larval stages of an endangered

fish species at concentrations that occur during their hatching season. *Aquatic Toxicology* 228, 105611. (IC, \$)

- 33) DeCourten, B.M.* , Forbes, J.P.* , Roark, H.K.* , Burns, N.P.* , Major, K.M.♦ , Li, J., Mehinto, A.C., Connon, R.E., **Brander, S.M.** 2020. Multigenerational and transgenerational effects of environmentally relevant concentrations of endocrine disruptors in an estuarine model fish species. *Environmental Science and Technology* (in press). (EA, W, IC, \$, F)
- 32) Major, K.♦ , DeCourten B.* , Li, J., Britton, M., Settles, M., Mehinto, A., Connon, R., **Brander, S.M.** 2020. Early life exposure to environmentally relevant levels of endocrine disruptors drives multigenerational and transgenerational epigenetic changes in a estuarine fish model. *Frontiers in Marine Science* 7, 471. (EA, IC, \$)
- 31) Bytingsvik, J., Parkerton, T.F., Guyomarch, J., Tassara, L., LeFloch, S., Arnold, W.R., **Brander, S.M.**, Volety, A., Camus, L. 2020. The sensitivity of the deep-sea species Northern shrimp (*Pandalus borealis*) and the cold water coral (*Lophelia pertusa*) to oil-associated aromatic compounds, dispersant, and Alaskan North Slope crude oil. *Environmental Toxicology and Chemistry* 156:111202 (A, IC, \$ at UNCW)
- 30) **Brander, S.M.**, Renick, V., Foley, M., Lusher, A., Steele, C., Carr, S., Helm, P., Box, C., Andrews, B., Rochman, C. 2020. Sampling and QA/QC: A guide for scientists investigating the occurrence of microplastics across matrices. Invited to *Applied Spectroscopy* 74 (9): 1099-1125 doi.org/10.1177/0003702820945713 (W, IC, \$)
- 29) Cowger, W.†, Booth, A., Hamilton, B., Thaysen, C., Primpke, S., Munno, K., Lusher, A., Devriese, L.I., Hermabessiere, L., Dehaut, A., Vitor, P., Liboiron, M., Rochman, C., Athey, S., De Frond, H., Gray, A., Jones, OI, **Brander, S.M.**, Steele, C., Moore, S., Sanchez, A., Nel, H. 2020. Reporting requirements to increase the reproducibility and comparability of research on microplastics. *Applied Spectroscopy* 74 (9): 1066-1077 doi.org/10.1177/0003702820930292 (W, IC, \$)
- 28) Athey, S.A.* , S.D. Albotra†, C.A. Gordon†, B. Monteleone, P. Seaton, A.R. Taylor, **Brander, S.M.** 2020. Trophic transfer of microplastics in an estuarine model and the effects of a sorbed legacy pollutant. *Limnology and Oceanography Letters* 5(1): 154-162, doi.org/10.1002/lol2.10130.
- 27) Granek, E.F., **Brander, S.M.**, Holland, E. 2020. Microplastics in aquatic organisms: Improving understanding and identifying research directions for the next decade. *Limnology and Oceanography Letters* 5 (1): 1-4, doi.org/10.1002/lol2.10145. (EA, W, IC, \$).
- 26) Bachelor, B.†, Horn, D.†, Stienbarger, C.* , Joseph, J. §, Granek, E., Taylor, A., **Brander, S.M.** 2020. Microplastic occurrence and effects in North American

commercial fishery species. *Limnology and Oceanography Letters* 5(1): 113-136, doi.org/10.1002/lol2.10122. (EA, W, IC, \$).

- 25) Connon, R.E., Hasenbein S., **Brander S.M.**, Cherr G.N., Whitehead A., Todgham A., Young T., Breur R.S., Orland J.L., Collier T.K., Scholz N.L., Colburne J.K., Hajibabbei M., Hamdoun A., Incardona J., Perkins E.J., Garcia-Reyero N., Denslow N.D., Gallagher E.P., Schlenk D., Brown J.B., Deng X., Erickson G., Poynton H., Holland E. 2019. Considerations for evaluating contaminant effects in the San Francisco Bay-Delta. *San Francisco Estuary and Watershed Sciences* 17:2 (W, IC, \$)
- 24) Romney, A.L.T.§, Yanagitsuru, Y.R., Mundy, P.C. †, Fangue, N.A., Hung, T-C., **Brander, S.M.**, Connon, R.E. 2019. Developmental staging and salinity tolerance in embryos of the Delta smelt, *Hypomesus transpacificus*. *Aquaculture* 511:634191. (\$))
- 23) DeCourten, B.D.* , Connon R.E., **Brander S.M.** 2019. Direct and indirect exposure to endocrine disruptors and elevated temperature influences gene expression across generations in a euryhaline fish model. *Peer J*: 7:e6156 (IC, EA, A, F)
- 22) Frank, D.F.†, **Brander, S.M.**, Hasenbein, S., Harvey, D.J., Geist, J., Connon, R.E. 2019. Exposure to environmentally relevant bifenthrin concentrations results in behavioral and transcriptomic alterations during early development of *Menidia beryllina*. *Aquatic Toxicology* 206:1-13. (F, A, EA, IC)
- 21) McConville, M.* , Roberts J. †, Boulais, M., Woodall, B. †, Guyomarch, J., LeFloch, S., Redman, A., Arnold, R., Parkerton, T., Bytingsvik, J., Camus, L., Volety, A., **Brander, S.M.** 2018. The sensitivity of the deep sea fish species *Anoplopoma fimbriae* to single oil-associated aromatic compounds, dispersant, and chemical enhanced Alaskan North Slope oil. *Environmental Toxicology and Chemistry* 37: 2210-2221. (W, F, EA)
- 20) Frank, D.F. †, Miller, G.W., Connon, R.E., Harvey, D.J., **Brander, S.M.**, Geist, J., Lein, P.J.. 2018. Developmental bifenthrin exposure causes delayed hyperactivity and transcriptomic alterations in mTOR and ryanodine receptor-dependent signaling in zebrafish (*Danio rerio*). *Aquatic Toxicology* 200:50-61. (EA)
- 19) **Brander, S.M.**, Biales, A., Connon R.E. 2017. The role of epigenomics in aquatic toxicology. Invited Focus paper. *Environmental Toxicology and Chemistry* 36:2565-2573. (W, IC)
- 18) DeCourten B.M.* , **Brander, S.M.**. 2017. Combined effects of warming and pollutants on sex determination, survival, and development across generations. *Scientific Reports* 7:9310. (W, IC, EA, A, F)

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- 17) Goff A.D.*, Saranjampour*, P., Hladik, M., Armbrust, K., **Brander, S.M.** 2018. The effects of fipronil and its photodegradation product fipronil desulfinyl on growth and gene expression in juvenile blue crabs, *Callinectes sapidus*, at different salinities. *Aquatic Toxicology* 186:96-104.
- 16) White, J.W., Cole, B.C., Cherr, G.N., Connon, R.E., **Brander, S.M.** 2017. Scaling up the individual-level effects from individuals to populations: Outcomes depend on how many males a population needs. *Environmental Science and Technology* 51:1802-1810.
- 15) **Brander S.M.**, Gabler*, M.K., Fowler*, N.L., Connon, R.E., Schlenk, D. 2017. Pyrethroid pesticides as endocrine disruptors: Molecular mechanisms in vertebrates with a focus on fishes. *Environmental Science and Technology* 50:8977-8992.
- 14) Cole B.J., **Brander, S.M.**, Jeffries, K.M., Hu, G., Hasenbein, S., Fangué, N.A., Denison, M.S., Connon, R.E. 2016. Differential changes in gene expression in *Menidia beryllina* and hormone receptor activation caused by exposure to estuarine waters near wastewater outfalls with different treatment processes. *Archives of Environmental Contamination & Toxicology* 71:210-223.
- 13) **Brander S.M.**, B.J. Cole, K.M. Jeffries, B.M. DeCourten*, N.A. Fangué, R.E. Connon. 2016. Transcriptomic changes underlie altered egg protein production and reduced fecundity in an estuarine model fish exposed to bifenthrin. *Aquatic Toxicology* 174:247-260. (Invited contribution)
- 12) Jeffries K.M., **Brander, S.M.**, Britton, M.T., Fangué, N.A., Connon, R.E.. 2015. Chronic exposures to low and high concentrations of ibuprofen elicit different gene response patterns in a euryhaline fish. *Environmental Science and Pollution Research* 22:17397-17413. (Invited contribution)
- 11) Heintz M.M.*, **Brander, S.M.**, White, J.W. 2015. Endocrine disrupting compounds alter risk-taking behavior in fish. *Ethology* 121:480-491.
- 10) **Brander S.M.**, S. Hecht, J. Incardona, K. Kidd, K. Kuivila, S. Kullman, N. Scholz. 2015. "Bridging the gap" with fish: Advances in assessing exposure and effects across biological scales. *Environmental Toxicology and Chemistry* 34:459-466. (Invited contribution)
- 9) DeGroot B.D.*, **Brander, S.M.** 2014. The role of metabolism in the estrogenicity of bifenthrin in fish. *Aquatic Toxicology* 156:17-20.
- 8) **Brander S.M.**, Connon, R.E., He, G. , Hobbs, J.A., Smalling, K.L., Teh, S.J., White, J.W., Werner, I., Denison, M.S., Cherr, G.N. 2013. From 'omics to otoliths: Correlated

responses of an estuarine fish to endocrine disrupting compounds across biological scales. *PLoS One* 8:e74251.

- 7) **Brander S.M.**, G. He, K.L. Smalling, M.S. Denison, G.N. Cherr. 2012. The *in vivo* estrogenic and *in vitro* anti-estrogenic activity of permethrin and bifenthrin. *Environmental Toxicology and Chemistry* 31:2848-2855.
- 6) **Brander S.M.**, C.M. Mosser, J.P. Geist, M.L. Hladik, I. Werner. 2012. Esfenvalerate toxicity to the cladoceran *Ceriodaphnia dubia* in the presence of the green algae, *Pseudokirchneriella subcapitata*. *Ecotoxicology* 21:2409-2418.
- 5) **Brander S.M.**, B.J. Cole, G.N. Cherr. 2012. An approach to detecting estrogenic endocrine disruption via choriogenin expression in an estuarine model fish species. *Ecotoxicology* 21:1272-1280.
- 4) **Brander S.M.**, R. Fontana, T. Mata, S. Gravem, A. Hettinger, J. Bean, A. Szoboszlai, M. Marrero, C. Keiper. 2011. The Ecotoxicology of Marine Debris. *Journal of the American Biology Teacher* 73:474-478.
- 3) **Brander S.M.**, I. Werner, J.W. White, L.A. Deavonic. 2009. Toxicity of a pyrethroid mixture to *Hyalella azteca* at environmentally relevant concentrations. *Environmental Toxicology and Chemistry* 28:1493-1499.
- 2) Bodensteiner, S., Zinkl, M., McCloskey J., **Brander S.M.**, Grabow L., Sellier P. 2008. Effects of desalination brine waste blended with treated wastewater in the aquatic environment of San Francisco. *Water Practice* 2:1-9.
- 1) **Brander S.M.**, J.A. Royle, M. Eames. 2007. Evaluation of the status of anuran populations on a refuge in suburban Maryland. *Journal of Herpetology* 41:51-59.

ii. Book chapters (refereed)

Since arrival at Oregon State

- 2) Major, K. ♦, **Brander, S.M.** 2020. The ecological and evolutionary implications of pyrethroid exposure: A new perspective on aquatic ecotoxicity. *Handbook of Environmental Chemistry*. Ed: Ejeratt, S. 44 pp., in press. (Invited contribution) (W, IC, \$).
- 1) DeCourten, B.D.* , Romney A. §, **Brander S.M.** 2019. The heat is on: Aquatic endocrine disruption in the context of climate change. *Evaluating water quality to prevent future disasters*. In: Separation Science and Technology series, Elsevier. Ed: Ahuja, S., 11:13-49. (Invited contribution) (EA, W, IC, \$)

Prior to arrival at Oregon State

- 1) **Brander S.M.** 2013. Thinking outside the box: Assessing endocrine disruption in aquatic life. In: Ajuha, S., editor. *Monitoring water quality: Pollution assessment, analysis, and remediation*. Elsevier. Ed: Ahuja, S. pp. 395. *Invited contribution.

b. Other publications

i. Technical Reports

Since arrival at Oregon State

- 1) **Brander, S.M.***, Hoh, E. *, Unice, K.M.*, Bibby, K.R., Cook, A.M., Holleman, R.C., Kone, D.V., Rochman, C.M., Thayer, J.A. Microplastic Pollution in California: A Precautionary Framework and Scientific Guidance to Assess and Address Risk to the Marine Environment. 2021. California Ocean Science Trust, Sacramento, California, USA. – *peer reviewed*, **co-chair of science advisory team*

Prior to arrival at Oregon State

- 4) Goff, A.D., **Brander, S.M.** 2014. Evaluating water quality in the lower Cape Fear: Effects on the health and survival of migratory fishes. Report to the Cape Fear River Partnership.
- 3) 2011. The Pulse of the Delta: Monitoring and Managing Water Quality in the Sacramento–San Joaquin Delta. Re-thinking Water Quality Monitoring. Contribution 630. Aquatic Science Center, Oakland, CA.
- 2) Palumbo, A.J., Fojut, T.L., **Brander, S.M.**, and Tjeerdema, R.S. Methodology for derivation of pesticide water quality criteria for the protection of aquatic life. Phase III: Bifenthrin criteria derivation. Prepared for the Central Valley Regional Water Quality Control Board. Department of Environmental Toxicology, University of California, Davis, CA.
- 1) Werner, I., Deavonic, L., Kamphanh, J., Geist, J., Markiewicz, D., Reece, K., Stillway, M., **Brander, S.** 2007. Pelagic organism decline: acute and chronic invertebrate and fish toxicity testing. Progress Report II. Aquatic Toxicology Laboratory, School of Veterinary Medicine, University of California, Davis, California.

2. Presentations to peers

Summary of presentations

Time frame	Invited (first author/presenter)	Invited (contributing author)	Contributed (first author/presenter)	Contributed (contributing author)	Poster
Since at OSU	39	16 (13 led by students)	5	17 (13 led by students)	50 (43 led by students)
Prior to	18	7 (3 led by	2	11 (8 led by	39 (32 led by

OSU		students)		students)	students)
Total	57	23	7	28	89

'led by students' = student as 1st author or presenter

Invited Presentations as lead author or presenter

(presenter underlined), students or post-docs indicated by *

Since arriving at Oregon State

- 2021 Microplastics risk assessment processes underway in the State of California. Brander, S. San Francisco Estuary Institute, Regional Monitoring Plan Meeting. April 2021.
- 2021 Microplastics, and even smaller: Effects and risk considerations across aquatic taxa and habitat. Brander, S.M. Global Microplastics Symposium. April 2021.
- 2021 The effects and risk of nano- and microplastics in freshwater and marine organisms. Brander, S.M., Harper, S.L. SETAC Europe Special Science Symposium on Microplastics. April 2021.
- 2021 SETAC Microplastics Global Interest Group Overview. Brander, S. SETAC Europe Special Science Symposium on Microplastics. March 2021.
- 2021 Microplastic occurrence and effects in North American commercial fishery species. Brander, S.M. Toxics Workshop, Seattle, WA (virtual). February 2021.
- 2021 Microplastics, and even smaller: Effects and risk considerations across marine taxa and habitat. Brander, S. US Coastal Research Program. January 2021.
- 2021 Microplastics and human health. Brander, S., Harper, S., Pennington, J., Sharpton, T. OSU Ignite Session. January 2021.
- 2020 Effects of micro and nanoplastics across biological levels of organization. Brander, S.M. Microplastics Health Effects Workshop. Southern California Coastal Water Research Project, CA Waterboards. November 2020.
- 2020 Emerging contaminants in Oregon's coastal waters. Granek, E.F., Baechler, B.R., Ehrhart, A.L., Engelmeyer, K.S., *Hutton, S.J., *Siddiqui, S., Brander, S.M. State of the Coast Annual Meeting. November 2020. (group presentation)

- 2020 Epigenetic effects from exposure to environmental stress lead to patterns of transgenerational inheritance. Bhandari, R., Brander, S. SETAC SciCon2. November 2020. (group presentation)
- 2020 Marine debris: What is known, and how we can better understand the impacts. Brander, S.M. Hatfield Marine Science Summit. Virtual. October 2020.
- 2020 Multi- and transgenerational effects of endocrine disrupting compounds: Understanding implications across biological scales. Brander, S.M. Toxicology Seminar Series. Dept. Biological Sciences, North Carolina State University. October 2020.
- 2020 An assessment of microplastic ingestion in the commercially important Black Sea Bass, *Centropristis striata*: A lab and field study. *Stienbarger, C., *Joseph, J., *Athey, S., Monteleone, B., Andrady, A. Watanabe, W., Seaton, P., Taylor, A., White, J.W., Brander, S. NOAA One Science Seminar Series. October 2020.
- 2020 Tales of otters, rockfish, mussels, and zooplankton: occurrence and implications of microplastics in biota along the Pacific Northwest coast. S. Brander, K. Bernard, *A. Bolm, *J. Dickens, N. Duplaix, L. Field, E. Granek, S. Gravem, B. Harper, S. Harper, M. Hawkyard, S. Henkel, S. Heppell, L. Hildebrand, W. Landis, S. Larson, *K. Lasdin, T. Levi, I. Mangino, J. Miller, L. Torres, *J. Van Brocklin, *A. Williams. Salish Sea Ecosystem Conference. April 2020.
- 2020 Pacific Northwest Consortium on Plastics: Convergence on Micro and Nanoplastics in Aquatic Environments. Harper, S., Brander, S. Oregon State Clean Water Initiative. Virtual. March 2020.
- 2020 Environmental stressors in the Anthropocene: Assessing impacts on aquatic organisms across biological scales. Brander S. Fisheries and Wildlife Departmental Seminar Series, Oregon State University, Corvallis, OR. March 2020.
- 2020 Sampling and QA/QC, or how many blanks do I need?: A guide for scientists investigating the occurrence of microplastics across matrices. Brander SM, Renick VC, Foley M, Steel CL, Woo M, Lusher A, Carr S, Helm P, Cherniak S, Rochman C. Ocean Sciences. Feb 2020.
- 2019 Sampling and QA/QC, or How Many Blanks Do I Need: A guide for scientists investigating the occurrence of microplastics across matrices. Brander S, Renick V, Foley, Steele C, Woo, Lusher A , Carr, Helm, Box,

Cherniak, Andrews, Rochman C. Seattle Aquarium Microplastics Workshop, Seattle, WA. Keynote. October 2019.

- 2019 Potential impacts of microplastics on marine, freshwater, and terrestrial organisms: What we know and what we need to know to better assess risk. Brander, S.M. Science and Solutions for Microplastic Pollution, David Brower Center, Berkeley, CA. October 2019.
- 2019 Marine ecotoxicology: Measuring the impacts of environmental stressors in fish and invertebrates. Brander, S.M. OCOIN: Oregon Coast and Ocean Investigators Network. September 2019.
- 2019 Ecotoxicology in the 21st century: Progress and challenges in assessing organism and population level responses to environmental stress. Brander, S.M. Computable Exposures Workshop, Corvallis, OR. September 2019.
- 2019 The heat is on: Exposure to EDCs at elevated temperatures, multigenerational impacts and the potential for behavioral effects. Brander S, DeCourten B, Major K, Frank D, Mehinto A, White JW, Connon RE. Society for Behavioral Neuroendocrinology Annual Meeting, Bloomington, IN. June 2019.
- 2019 Using aquatic organisms to assess environmental stress across biological scales and generations. Brander, S. W-3045 Annual Meeting, Reno, NV. June 2019.
- 2019 Multi- and transgenerational effects of environmental stressors: Responses in a euryhaline model fish and implications for risk assessment. Brander, S. Keynote speaker, SoCal Society of Environmental Toxicology and Chemistry Annual Meeting, Scripps, San Diego, CA. May 2019.
- 2019 Epigenetic effects of environmental stressors: Responses in an aquatic model and implications for risk assessment. Brander, S. NIEHS speaker series, University California Davis, Davis, CA. February 2019.
- 2018 Transgenerational effects of early life stage exposure to endocrine disruptors across biological scales, in a euryhaline model fish. Brander S, DeCourten B, Forbes J, Roark H, Burns N, Mehinto A, Major K, White W, Britton M, Li J, Settles M, Connon R. Society for Environmental and Molecular Toxicology North America, Sacramento, CA. November 2018.
- 2018 Environmental stressors in coastal ecosystems with a focus on bifenthrin. Brander, S. Interagency Ecological Program, Contaminants Work Team, Sacramento, CA. webinar November 2018.

- 2018 Environmental stressors in coastal ecosystems: measuring responses in model estuarine organisms. Brander, S. Pacific Northwest National Labs, Sequim, WA. October 2018.
- 2018 An assessment of microplastic impacts on the health of the *Centropristis striata* fishery. Brander S., Stienbarger C, Jincy J, Athey S, Andrady A, Seataon P, Watanabe W, Monteleone B, Taylor A. American Fisheries Society Annual Meeting, Atlantic City, NJ. August 2018.
- 2018 Relevance of wildlife (fish) PFAS bioaccumulation data to human health protection. Brander, S. Toxicology Forum Annual Meeting, Annapolis, MD. July 2018.
- 2018 Effects of early life exposure on adult and offspring health: Considerations for risk assessment in aquatic ecosystems. Brander, S. Environmental Health Sciences Center, Oregon State University, Corvallis, OR. June 2018.
- 2018 Transgenerational effects of early life stage exposure to endocrine disruptors across biological scales in a euryhaline model fish. Brander S., DeCourten B, Forbes J, Roark H, Burns N, Mehinto A, White W, Settles M, Connon R. Society for Environmental and Molecular Toxicology Europe, Rome, Italy. May 2018.
- 2018 Using model estuarine and marine organisms to assess environmental stress. Brander S. Environmental Health Sciences Center. Oregon State University, Corvallis, OR. March 2018.
- 2018 The transgenerational effects of endocrine disrupting compounds. Brander S. Plenary talk. Pacific Northwest Society of Environmental Toxicology and Chemistry Annual Meeting. CH2M Hill, Corvallis, OR. March 2018.
- 2018 Using model estuarine and marine organisms to assess environmental stress. Brander S. College of Earth, Oceanic, and Atmospheric Sciences Seminar Series. Oregon State University, Corvallis, OR. February 2018.
- 2018 From the benchtop to the beach: Assessing responses to environmental stressors in marine and estuarine organisms. Brander S. Hatfield Marine Science Center Seminar Series. Oregon State University, Newport, OR. February 2018.
- 2017 Using model estuarine organisms to assess environmental stress across biological scales. Brander, S.M. Environmental and Molecular Toxicology Seminar Series. Oregon State University, Corvallis, OR. November 2017.

- 2017 The potential for transgenerational effects of early life stage exposure to endocrine disruptors across biological scales, in a euryhaline model fish species. Brander S. Environmental Protection Agency Science to Achieve Results Symposium. Minneapolis, MN. November 2017.
- 2017 Transgenerational effects of early life stage exposure to endocrine disruptors on reproduction and development in an estuarine fish. DeCourten B*, Forbes J*, Burns N*, Mehinto A, Settles M, White W, Connon R, Brander S. Society of Environmental Toxicology and Chemistry North America, Minneapolis, MN. November 2017.
- Prior to arrival at Oregon State*
- 2017 Multiple stressors in coastal ecosystems: Measuring responses in model estuarine organisms. Brander, S. American Chemical Society Annual Meeting, San Francisco, CA. April 2017.
- 2017 Multiple stressors in coastal ecosystems: Measuring responses in model estuarine organisms. Brander, S. University of North Carolina at Greensboro, Greensboro, NC. March 2017.
- 2016 Microplastic debris ingestion and evaluation of trophic transfer in the estuarine fish, *Menidia beryllina*. S Brander. North Carolina Marine Debris Symposium, Wrightsville, NC. September 2016.
- 2016 From the benchtop to the beach: Model organisms for the study of endocrine disruption in marine and estuarine ecosystems. S Brander. Stony Brook University, New York, NY. April 2016.
- 2015 Linking molecular level responses to apical endpoints: The development of relevant model systems for evaluating effects across the biological hierarchy. S Brander. Swiss Federal Institute of Aquatic Science and Technology (Eawag), Dübendorf, Switzerland. May 2015.
- 2014 Bifenthrin as endocrine disruptor in fishes: effects at the molecular, reproductive, and population levels. S Brander, K Jeffries, B Cole, B DeCourten*, J White, N Fangué, R Connon. Society for Environmental Toxicology and Chemistry North America, Vancouver, Canada. November 2014.
- 2014 Predicted population decline in fish due to bifenthrin exposure: Implications for aquatic ecosystems in the Bay-Delta. S Brander, K Jeffries, B Cole, B DeCourten*, B DeGroot*, J White, N Fangué, R Connon. San Francisco Bay-Delta Conference. October 2014.

- 2014 Use of an estuarine model teleost to evaluate pollutant impacts at multiple biological scales. S Brander, K Jeffries, B Cole, B DeCourten*, B DeGroot*, J White, N Fangue, R Connon. Society for Environmental Toxicology and Chemistry Europe, Basel, Switzerland. May 2014.
- 2013 Linking the benchtop to the bay: Menidia species as indicators of endocrine disruption. S Brander, K Jeffries, B Cole, B DeCourten*, B DeGroot*, J White, G Cherr, N Fangue, R Connon. Biomarkers Workshop. University of California, Davis. September 2013.
- 2013 From 'omics to otoliths: Using Menidia species to assess endocrine disruption at multiple biological scales. North Carolina State University, Raleigh, NC. S Brander. May 2013.
- 2013 From molecules to metapopulations: Assessing endocrine disruption in aquatic life. Davidson College, Davidson, NC. S Brander. February 2013.
- 2012 From 'omics to otoliths: Using Menidia species to assess endocrine disruption. Society for Environmental Toxicology and Chemistry, Long Beach, CA. S Brander, G Cherr. November 2012.
- 2012 From 'omics to otoliths: Using responses to endocrine disrupting compounds at multiple biological scales to predict population dynamics. Ecological Society of America, Portland, OR. S Brander, G Cherr. August 2012.
- 2011 From 'omics to otoliths: Linking responses to estrogenic and androgenic endocrine disrupting compounds at multiple biological scales. Office of Environmental Health Hazard Assessment, Sacramento, CA. S Brander, G Cherr. May 2011.
- 2010 Pyrethroids as endocrine disruptors: bifenthrin and permethrin act as estrogens and anti-estrogens. Brander, S.M. Society of Environmental Toxicology and Chemistry, Portland, OR. November 2010.
- 2010 Pyrethroids as endocrine disruptors: bifenthrin and permethrin acting as estrogens and anti-estrogens. Brander, S.M. California Department of Pesticide Regulation, Sacramento, CA. August 2010.
- 2010 Linking environmentally relevant responses to EDCs at multiple scales. Northern CA Society for Environmental Toxicology and Chemistry, Berkeley, CA. S Brander, G Cherr. May 2010.

- 2010 Endocrine disruption in a California estuary: Individual and population level effects in a resident fish species. San Francisco Estuary Interagency Ecological Program, Sacramento, CA. S Brander, G Cherr. March 2010.

Invited Presentations as coauthor

(presenter underlined), students or post-docs indicated by *

Since arriving at Oregon State

- 2020 Changes in biocide toxicity to the Inland silverside (*Menidia beryllina*) across a salinity gradient. *Hutton, S.J.; Pedersen, E.I.; *Markgraf, C.Y.; *Siddiqui, S.; Chappell, P. E.; White, J.W.; Armbrust, K.; Brander, S.M. Society of Environmental Toxicology and Chemistry North America Annual Meeting. Virtual. Nov 2020.
- 2020 Salinity alters biocide toxicity to the model fish Inland silverside (*Menidia beryllina*). *Hutton, S.J.; Pedersen, E.I.; St Romain, S.J.; *Siddiqui, S.; Chappell, P. E.; White, J.W.; Armbrust, K.; Brander, S.M. Platform. Oregon State of the Coast Annual Meeting. Virtual. March 2020.
- 2020 Development and application of a behavioral test for toxicity assessments in Delta smelt larvae. Connon RE, Brander SM. Collaborative Science and Adaptive Management Program (CSAMP), Structured Decisions Making, Technical Working Group. Sacramento, CA (webinar), March 2020.
- 2020 Occurrence and effects of microplastics in commercially harvested finfish and shellfish in North America: Research needs and future directions. Granek EF, *Baechler B, *Stienbarger C, *Horn DA, *Joseph J, Taylor AR, Brander SM. Ocean Sciences Meeting, San Diego, CA. February 2020.
- 2020 Spatial-temporal occurrence of microplastics in *Sebastes melanops* off the coast of Oregon. *Lasdin K, Brander S. Ocean Sciences Meeting, San Diego, CA. February 2020.
- 2020 Microplastic distribution and abundance in mussels along the California and Oregon coasts. *Mangino I, *Baechler B, Gravem SA, Granek EF, *Dickens J, Field L, Brander SM. Ocean Sciences Meeting, San Diego, CA. February 2020.
- 2019 Development of a behavioral test for toxicity assessments in Delta Smelt (*Hypomesus transpacificus*) larvae. *Mundy PM, Carte MF, Brander SM, Hung T-C, Fangué NA, Connon RE. Northern California Society for Environmental Toxicology and Chemistry Annual Meeting, Sacramento, CA, May 2019.

- 2019 Development and application of a behavioral test for toxicity assessments in Delta smelt larvae. *Mundy PM, Brander SM, Connon RE. Interagency Ecological Program: Contaminant Work Team, Sacramento, CA, August 20, 2019.
- 2019 Development of a behavioral test for toxicity assessments in Delta Smelt (*Hypomesus transpacificus*) larvae. *Mundy PM, Wong L, Huff Hartz KE, Lydy MJ, Brander SM, Hung T-C, Fangue NA, Connon RE. Society for Environmental Toxicology and Chemistry 40th Annual Meeting, Toronto, Canada, November 2019.
- 2019 Spatial-temporal occurrence of microplastics in Black Rockfish (*Sebastes melanops*) off the coast of Oregon. *Lasdin K, *Laundry J, *Agrawal A, Brander S. Coastal and Estuarine Research Federation Meeting, Mobile, AL. November 2019.
- 2019 Early life exposure to endocrine disruptors causes multigenerational and transgenerational epigenetic changes in a fish model. *Major K, *DeCourten B, Mehinto A, Li J, Settles M, Connon R, Brander S. Society for Environmental Toxicology and Chemistry North America Annual Meeting, Toronto, ON, Canada. November 2019.
- 2018 An assessment of directly ingested and trophically transferred microplastics in larval and juvenile black sea bass (*Centropristis striata*). *Stienbarger C, *Joseph J, Carroll P, Monteleone B, Andrady A, Watanabe W, Seaton P, Taylor A, Brander S. Society for Environmental and Molecular Toxicology North America, Sacramento, CA. November 2018.
- 2018 Combined exposure to EDCs and elevated temperature influences development, reproduction and gene expression across generations in an estuarine fish. *DeCourten B, Connon R, Brander S. Society for Environmental and Molecular Toxicology North America, Sacramento, CA. November 2018.
- 2018 Combined effects of warming and pollutants on temperature-dependent sex determination, survival, and development across generations. *DeCourten B, Connon R, Brander S. Ocean Sciences Meeting, Portland, OR. February 2018.
- 2017 At what cost? Ecosystem services of shellfish cultivation in an estuarine reserve. Darrow E, Alphin T, Brander S, Puckett B, Lytle M, *Billet K, Posey M. Coastal and Estuarine Research Foundation (CERF) Annual Meeting, Providence, RI. November 2017.

2017 Combined effects of warming and pollutants on temperature-dependent sex determination, survival, and development across generations. *DeCourten B, Brander S. Coastal and Estuarine Research Foundation (CERF) Annual Meeting, Providence, RI. November 2017.

Prior to arrival at Oregon State

- 2016 Multiple stressors over multiple generations: Assessing the combined effects of climate change and endocrine disruptors. *DeCourten B, Connon R, Brander S. Bay-Delta Science, Sacramento, CA. October 2016.
- 2016 Multiple stressors over multiple generations: Assessing the combined effects of climate change and endocrine disruptors. *DeCourten B, Connon R, Brander S. SETAC North America, Orlando, FL. November 2016.
- 2016 Multiple stressors over multiple generations: Assessing the combined risk of climate change and endocrine disruptors. *DeCourten, B., Brander, S. Interagency Ecological Program Meeting, Sacramento, CA. April 2016.
- 2015 Linking biological scales across generations: An estuarine and marine model for measuring the ecological impact of EDCs. S Brander, A Mehinto, J White, R Connon, B DeCourten*, K Maruya. EPA STAR Awards Kick Off Session. SETAC North America, Salt Lake City, Utah, USA. November 2015.
- 2014 Validating inland silversides as a bioindicator species for the San Francisco Estuary. R. Connon, K Jeffries, B Cole, B DeCourten*, B DeGroot*, J White, N Fangue, S Brander. Interagency Ecological Program Annual Workshop, Folsom, CA. April 2014.
- 2013 Effects of bifenthrin and bifenthrin metabolite exposure on the endocrine system of *Menidia beryllina*. S Brander, K Jeffries, B Cole, B DeCourten*, B DeGroot, J White, N Fangue, R Connon. Society for Environmental Toxicology and Chemistry North America, Nashville, TN. November 2013.
- 2013 Mechanistic effects of exposure to ibuprofen on inland silversides (*Menidia beryllina*). K Jeffries, S Brander, B De Courten*, N Fangue, R Connon, Society for Environmental Toxicology and Chemistry, Nashville, TN. November 2013.

Contributed presentations as lead author or presenter (underlined)

Since arriving at Oregon State

2021 Multigenerational effects of endocrine disrupting compounds: Understanding population-level implications using modeling approaches. Brander, S.M.,

White, J.W., DeCourten, B.M., Major, K.M., Connon, R.E., Mehinto, A. SETAC Europe. May 2021.

- 2021 Microplastics in the Northeast Pacific Ocean: An Exploration Across Taxa and Spatial Scales. Brander, S.M., Bolm, A., Lasdin, K.S., Van Brocklin, J., Duplaix, N., Larson, S., Granek, E.F., Miller, J. SETAC Europe. May 2021.
- 2020 An assessment of microplastic ingestion in the commercially important Black Sea Bass, *Centropristis striata*: A lab and field study. *Joseph J, *Stienbarger C, *Athey S, Monteleone B, Andrady A, Watanabe W, Seaton P, Taylor A, Brander S. Ocean Sciences Meeting, San Diego, CA. February 2020.
- 2019 Multigenerational effects of endocrine disrupting compounds: Understanding population level implications using modeling approaches. Brander S, White JW, DeCourten BM, Mehinto A, Connon R. Society for Environmental Toxicology and Chemistry North America Annual Meeting, Toronto, ON, Canada. November 2019.
- 2019 Multigenerational effects of endocrine disrupting compounds: Understanding population-level implications using modeling approaches. Brander SM, White JW, Major K, DeCourten B, Connon RE, Mehinto A. Pollutant Responses in Marine Organisms (PRIMO), Charleston, SC. May 2019.

Prior to arrival at Oregon State

- 2015 Effects of bifenthrin across multiple biological scales in a euryhaline model fish species. Brander, S., Cole, B., Jeffries, K., DeCourten, B.** , White, J., Fangue, N., Connon, R. Pollutant Responses in Marine Organisms: PRIMO 18th biannual meeting. May 2015.
- 2014 Use of an estuarine model teleost to evaluate pollutant impacts at multiple biological scales. Brander, S., Jeffries, K., Cole, B., DeCourten, B.** , DeGroot, B.* , White, J., Fangue, N., Connon, R. SETAC Europe 2014, Society of Environmental Toxicology and Chemistry Europe, Basel, Switzerland. May 2014.

Contributed Presentations as coauthor

(presenter underlined), students or post-docs indicated by *

Since arriving at Oregon State

- 2021 Effects of environmentally relevant tire wear particles on estuarine indicator species. *Dickens, J.M., *Siddiqui, S., *Cunningham, B., *Hutton, S.,

- Pedersen, E., Harper, B., Harper, S., Brander, S.M. SETAC Europe. May 2021.
- 2021 Effects of environmentally relevant micro and nanoplastics (polypropylene and polycacetic acid) particles on estuarine indicator species. *Siddiqui, S., *Dickens, J.M., *Cunningham, B., *Hutton, S., Pedersen, E.I., Harper, B., Harper, S., Brander, S.M. SETAC Europe. May 2021.
- 2021 *Bolm, A.E.; Granek, E.F.; Miller, J.A.; Brander, S.M. 2020. *An unexpected snack: zooplankton feeding on microplastics in the Northern California Current*. 5-minute presentation at the 2021 Pacific Estuarine Research Society Annual Meeting; Virtual. April 2021.
- 2020 Investigating the Presence and Trophic Transfer of Microplastics in Ex- and In-Situ Sea Otters. *Van Brocklin, J.E., Brander, S.M., Larson, S., Levi, T., Duplaix, N. 2020. Presentation. Western Society of Naturalists. Nov 2020.
- 2020 Using behavior to assess the sublethal effects of pyrethroid exposure at different salinities in estuarine fish. *Hutton, S.J.; Pedersen, E.I.; *Siddiqui, S.; *Segarra, A.; Hladik, L.M.; Connon, R.E.; Brander, S.M. Platform. Western Society of Naturalists Annual Meeting. Virtual. Nov 2020.
- 2020 An unexpected snack: zooplankton feeding on microplastics in the Northern California Current. *Bolm, A.E., Granek, E.F., Miller, J.A., Brander, S.M. Platform. Western Society of Naturalists Annual Meeting; Virtual. November 2020.
- 2020 Spatial occurrence of microplastics in Black Rockfish (*Sebastes melanops*) off the coast of Oregon, *Lasdin, K., Brander, S. Platform. Western Society of Naturalists Meeting Annual Meeting. November 2020.
- 2020 The Spatial Variability of the Occurrence of Ingested Microplastics in *Sebastes melanops* off the Oregon Coast. *Lasdin, K., Brander, S. Platform. SETAC North America meeting. November 2020.
- 2020 Early life exposure to endocrine disruptors causes multigenerational and transgenerational epigenetic changes in a fish model. *Major K., *DeCourten B, Mehinto A, Britton M, Li J, Settles M, Connon R, Brander S. Pacific Northwest SETAC Annual Meeting, Bremerton, WA. February 2020.
- 2019 Building an oyster filtration model from the ground up. *Kinsella JD., Darrow ES, Voley AK, Bricker SB, Posey MH, Alphin T, Ferreira JG, Cubillo A, Brander SM, Puckett B. Coastal and Estuarine Research Foundation Biennial Conference. November 2019.

- 2019 High stakes: Decision support for oyster mariculture within an estuarine reserve. Darrow ES, Alphin T, Posey MH, Brander S, Puckett B, Bricker SB, Ferreira JG, *Kinsella JD, Lytle MA, *Billet KS, Cubillo A. Coastal and Estuarine Research Federation Biennial Conference. November 2019.
- 2019 Endocrine disruptors cause effects across generations and scales in a euryhaline fish model. *Major KM, *DeCourten BM, Forbes J, Mehinto AC, Britton M, Li J, Settles M, Connon R, Brander SM. Pollutant Responses in Marine Organisms (PRIMO), Charleston, SC. May 2019.
- 2019 Current knowledge and future directions: microplastic occurrence and effects in commercially harvested North American finfish and shellfish. Baecheler BR, Horn DA, *Jincy J, *Stienbarger CD, Taylor AR, Granek EF, Brander SM. Pacific Northwest Society for Environmental Toxicology and Chemistry, Vancouver, WA. April 2019.
- 2018 Trophic transfer of microplastics and an associated legacy pollutant from microzooplankton to their predators. *Athey S, *Albotra S, *Gordon C, Monteleone B, Andrady A, Taylor A, Brander S. Society for Environmental Toxicology and Chemistry, Sacramento, CA. November 2018.
- 2018 Combined exposure to EDCs and elevated temperature influences development, reproduction and gene expression across generations in an estuarine fish. *DeCourten B, Connon R, Brander S. Bay-Delta Science Conference, Sacramento, CA. October 2018.
- 2018 Towards development of environmental criteria for siting of bivalve mariculture siting in reserves. Darrow E, Alphin T, *Billet K, Brander S, Bricker S, Ferreira J, Lytle M, Posey M, Volety A, Weirich C, Wilbur A. Atlantic Estuarine Research Society, Rehoboth Beach, DE. March 2018.
- 2017 Impacts of oyster structures (reefs and culture operations) on adjacent infaunal community assemblages. Lytle M, Posey M, Darrow E, Brander S, Alphin T. Coastal and Estuarine Research Foundation (CERF) Annual Meeting, Providence, RI. November 2017.
- Prior to arrival at Oregon State*
- 2017 Combined effects of warming and pollutants on temperature-dependent sex determination, survival, and development across generations. *Decourten B, Connon R, Brander S. Carolinas Society of Environmental Toxicology and Chemistry, Charleston, SC. May 2017.
- 2017 The effect of a microplastic-associated legacy pollutant on the feeding preferences of microzooplankton and their predators. *Athey S, Echevarria

M, Andrady A, Taylor A, Brander S. Carolinas Society of Environmental Toxicology and Chemistry, Charleston, SC. May 2017.

- 2016 How many males does a population need? White JW, Easter E, Cole B, Cherr G, Connon R, Brander S. Western Society of Naturalists, Monterrey, CA. November 2016.
- 2016 Multiple stressors over multiple generations: Assessing the combined effects of climate change and endocrine disruptors. *DeCourten B, Brander S. 2016 Bay-Delta Science Conference, Sacramento, CA. October 2016.
- 2016 Multiple stressors over multiple generations: assessing the combined effects of climate change and endocrine disruptors. *DeCourten, B., Brander, S. Carolinas SETAC, Wilmington, NC. May 2016.
- 2016 Behavioral responses and sublethal impacts of dispersed oil and PAHs on juvenile sablefish, *Anoplopoma fimbria*. *McConville, M., *Roberts, J., Brander, S., Volety, A. Graduate Symposium, College of William and Mary, Williamsburg, VA. March 2016.
- 2016 Assessing the impacts of endocrine disruption in wild populations and laboratory reared blue crabs, *Callinectes sapidus*, by evaluating gene expression, morphology, and population-level endpoints. *Goff, A., Brander, S. Benthic Ecology Meeting, Portland, ME. March 2016.
- 2015 Multiple stressors over multiple generations: assessing the combined effects of climate change and endocrine disruptors. *DeCourten, B., Brander, S. SETAC North America, Salt Lake City, Utah, USA. November 2015.
- 2014 Physiological effects of exposure to ibuprofen in *Menidia beryllina*. Jeffries, K., Brander, S., Cole, B., Fanguie, N., Connon, R. SETAC Europe 2014, Society of Environmental Toxicology and Chemistry Europe, Basel, Switzerland. May 2014.
- 2014 Generalized mixed models for ecotoxicology: avoiding pseudoreplication and unnecessary data transformations. White, J.W., Brander, S. SETAC Europe 2014, Society of Environmental Toxicology and Chemistry. May 2014.
- 2013 Guppy gladiators: endocrine disrupting compounds alter risk-taking behaviors when facing a predator in the arena. *Heintz, M. M., Brander, S., White, J. 42nd Benthic Ecology Meeting, Savannah, GA. March 2013.

Poster presentations

(presenter underlined), students or post-docs indicated by *

Since arriving at Oregon State

- 2021 The presence and abundance of microplastics in the juvenile black rockfish. *Arnold MA, Lasdin KS, Brander SM. Pacific Northwest SETAC. April 2021.
- 2021 Micro and Nanoplastics: The effects of tire wear particles on estuarine indicator species. *Dickens, J.M., *Siddiqui, S., *Cunningham, B., *Hutton, S.J., Pedersen, E.I., Harper, B., Harper, S.L., Brander, S.M. Pacific Northwest SETAC. April 2021.
- 2021 Effects of pyrethroid pesticides across a salinity gradient on behavior in an endangered fish species and a model organism. *Hutton, S.J., *Segarra, A., *Siddiqui, S., Pedersen, E.I., Markgraf, C.Y., Hladik, M.L., Connon, R.E., Brander, S.M. Bay Delta Science Conference. April 2021.
- 2021 Trophic transfer, bioaccumulation and transcriptomic effects of permethrin in Inland silversides *Menidia beryllina*, under future climate scenarios. Fuller, N., Derby, A., Huff Hartz, K.E., Connon, R.E., *Segarra, A., Brander, S., Lydy, M.J. Bay Delta Science Conference. April 2021.
- 2020 Hold the Plastic Please: Investigating Microplastic Ingestion by Sea Otters Through Diet and Scat Analysis. *Van Brocklin, J.E., Brander, S.M., Larson, S., Levi, T., Duplaix, N. 2020. Poster. Society of Environmental Toxicology & Chemistry North America. Nov 2020.
- 2020 Exposure to Pyrethroid Pesticides Across a Salinity Gradient in a Model Estuarine Organism. *Hutton, S.J.; Pedersen, E.I.; *Siddiqui, S.; *Segarra, A.; Hladik, L.M.; Connon, R.E.; Brander, S.M. 2020. Poster. Society of Environmental Toxicology and Chemistry North America Annual Meeting. Virtual. Nov 2020.
- 2020 An unexpected snack: zooplankton feeding on microplastics in the Northern California Current. *Bolm, A.E.; Granek, E.F.; Miller, J.A.; Brander, S.M. 2020. Poster. Society of Environmental Toxicology & Chemistry North America Annual Meeting; Virtual. November 2020.
- 2020 Development and validation of cardiomyocytes, hepatocytes, and osteoblasts cell lines from the euryhaline fish model species *Menidia beryllina*. *Markgraf, C.M.; Pedersen, E.I.; Hutton, S.J.; Chappell, P.E.; Armbrust, K.; White, J.W.; Brander S.M. Poster. Society of Environmental Toxicology & Chemistry Annual Meeting; Virtual. Nov 2020.
- 2020 Early exposure to tire microparticles impacts Zebrafish (*D. rerio*) development and survival. *Cunningham, B., Harper, B., Brander, S.,

Harper, S. Poster. Society of Environmental Toxicology & Chemistry Annual Meeting; Virtual. Nov 2020.

- 2020 Spatial-temporal occurrence of microplastics in Black Rockfish (*Sebastes melanops*) off the coast of Oregon. *Lasdin, K., Brander, S. Platform. Research Advances in Fisheries, Wildlife, and Ecology Symposium (RAFWE). Oregon State University. April 2020
- 2020 An unexpected snack: zooplankton feeding on microplastics in the Northern California Current. *Bolm, A.E.; Granek, E.F.; Miller, J.A.; Brander, S.M. Poster. Research Advances in Fisheries, Wildlife, and Ecology Symposium (RAFWE). Virtual. April 2020.
- 2020 Development of a *Menidia beryllina* in Vitro – in Vivo Linked Model - Reducing the reliance on early-life stage testing with relevance to euryhaline fishes. *Hutton, S.J.; Pedersen, E.I.; *Markgraf, C.Y.; *Major, K.M.; Chappell, P. E.; White, J.W.; Armbrust, K.; Brander, S.M. Poster. Oregon State University Research Advances in Fisheries, Wildlife, and Ecology Annual Symposium (RAFWE). Virtual. April 2020.
- 2020 Micro and nanoplastics: The effects of environmentally relevant concentrations of tire wear particles on estuarine indicator species. *Dickens, J.M., Cunningham, B.E., *Siddiqui, S., *Hutton, S., Harper, S., Harper, B., Brander, S.M. Poster. Oregon State Clean Water Initiative. Virtual. March 2020.
- 2020 The effects of environmentally relevant concentrations of tire wear particles on estuarine indicator species. *Dickens, J.M., *Cunningham, B.E., *Siddiqui, S., *Hutton, S., Harper, S., Harper, B., Brander, S.M. State of the Coast. Virtual. March 2020.
- 2020 Endocrine disruptors cause multigenerational and transgenerational epigenetic changes in fish exposed during early life. *Major K., *DeCourten B, *Forbes J, Mehinto A, Li J, Settles M, Connon R, Brander S. Ocean Sciences Meeting, San Diego, CA. February 2020.
- 2020 Investigating the presence and trophic transfer of microplastics in ex- and in-situ North American otters through diet and scat analysis. *Van Brocklin J., Brander S, Larson S, Levi T, Duplax N. Ocean Sciences Meeting, San Diego, CA. February 2020.
- 2020 Developing semantic technology for toxicology applications: Interdisciplinary collaborations and community development. Thessen, A.E., Callahan, T.J., Willis, M., Vasilevsky, N., Boyles, B., Kulkami, R., Grondin, C.J., Walls, R.,

Brander, S., Haendel, M. Society of Toxicology Annual Meeting, virtual poster (meeting cancelled due to Covid-19). March 2020.

- 2020 Microplastic contaminants in pelagic zone zooplankton and seawater of the Northern California Current. *Bolm AE, Granek EF, Miller JA, Brander SM. Pacific Northwest SETAC Annual Meeting, Bremerton, WA. February 2020. (won 3rd place for Masters student)
- 2020 Hold the Plastic Please: Investigating Microplastic Ingestion by Sea and River Otters Through Diet and Scat Analysis. *Van Brocklin, J.E., Brander, S.M., Larson, S., Levi, T., Duplaix, N. Poster. Pacific Northwest Chapter of the Society of Environmental Toxicology & Chemistry, Bremerton, WA. February 2020.
- 2020 Plastic beach: Examining the distribution and abundance of microplastics in *Mytilus californianus* along the California and Oregon Coasts. *Dickens JM, *Mangino I, Field LC, Gravem SA, Granek E, Brander SM. Pacific Northwest SETAC Annual Meeting, Bremerton, WA. February 2020.
- 2020 Development of a *Menidia beryllina* in vitro – in vivo linked model. *Hutton SJ, Pedersen EI, *Major KM, Chappell P, White JW, Armbrust K, Brander SM. Pacific Northwest SETAC Annual Meeting, Bremerton, WA. February 2020.
- 2020 Spatial-temporal occurrence of microplastics in *Sebastes melanops* off the coast of Oregon. *Lasdin KS, Brander SM. Pacific Northwest SETAC Annual Meeting, Bremerton, WA. February 2020.
- 2020 Hold the Plastic Please: Investigating Microplastic Ingestion by Sea and River Otters Through Diet and Scat Analysis. *Van Brocklin, J.E., Brander, S.M., Larson, S., Levi, T., Duplaix, N. 2020. Poster. Wildlife Society Meeting, Oregon Chapter. Won Best Graduate Student Poster Award. Feb 2020.
- 2019 An assessment of plastic ingestion in Black sea bass, *Centropristis striata*: A lab and field study. *Joseph J, *Stienbarger C, Monteleone B, Andrady A, Seaton P, Watanabe W, Taylor A, Brander S. Society for Environmental Toxicology and Chemistry North America Annual Meeting, Toronto, ON, Canada. November 2019.
- 2019 Microplastic contaminants in pelagic zone zooplankton and seawater of the Northern California current. *Bolm AE, Granek EF, Miller JA, Brander SM. State of the Coast (SOTC), Glendeden, OR. November 2019.

- 2019 An assessment of directly ingested and trophically transferred microplastics in a commercially valuable species: Black sea bass (*Centropristis striata*). *Steinbarger C, *Joseph J, *Athey S, Carroll P, Monteleone B, Andrady A, Watanabe W, Seaton P, Taylor A, Brander S. Pollutant Responses in Marine Organisms (PRIMO), Charleston, SC. May 2019.
- 2019 Chemical analysis of ingested plastics and associated organic pollutants in wild-caught black sea bass, *Centropristis striata*. *Joseph J, *Stienbarger C, *Athey S, Monteleone B, Andrady T, Watanabe W, Seaton P, Taylor A, Brander S. Pollutant Responses in Marine Organisms (PRIMO), Charleston, SC. May 2019.
- 2019 Development of a behavioral test for toxicity assessments in Delta Smelt (*Hypomesus transpacificus*) larvae. *Mundy P.C., Carte M.F., Wong L., Huff-Hartz K.E., Lydy M., Brander S.M., Hung T.C., Fanguie N.A., Connon R.E. Northern California SETAC, Sacramento, CA. May 2019.
- 2019 Quantifying marine microplastic ingestion in Black rockfish (*Sebastes melanops*) along the Oregon Coast. *Lasdin K, *Laundry J, *Agrawal A, Brander S. Pacific Northwest SETAC, Vancouver, WA. April 2019.
- 2019 Early life exposure to endocrine disruptors causes multi- and transgenerational epigenetic changes in a euryhaline fish model. *Major K, *DeCourten B, *Rericha Y, *Forbes J, *Mehinto A, White JW, Britton M, Li J. Settles M, Connon R, Brander S. Pacific Northwest SETAC, Vancouver, WA. April 2019.
- 2019 Exposure to EDCs influences development, reproduction and gene expression across generations in an estuarine fish, with notes on co-exposure to elevated temperature. *DeCourten B, Connon RE, Brander SM. Pacific Northwest SETAC, Vancouver, WA. April 2019. (2nd place graduate student poster award)
- 2019 Early life exposure to endocrine disruptors causes multi- and transgenerational epigenetic changes in a euryhaline fish model. *Major K, *DeCourten B, *Rericha Y, *Forbes J, Mehinto A, White JW, Britton M, Li J. Settles M, Connon R, Brander S. EMT Research Day, Oregon State University. January 2019.
- 2019 Exposure to EDCs influences development, reproduction and gene expression across generations in an estuarine fish. *DeCourten B, Connon RE, Brander SM. EMT Research Day, Oregon State University. January 2019.

- 2019 Using the commercially valuable Black sea bass (*C. striata*) as a model to assess the risk of microplastic pollution across multiple life stages. *Stienbarger C, *Joseph J, Monteleone B, Andrady A, Watanabe W, Seaton P, Taylor A, Brander S. Society for Environmental Toxicology and Chemistry North America Annual Meeting, Toronto, ON, Canada. November 2019.
- 2019 Quantifying marine microplastic ingestion in black rockfish on the Oregon coast. *Lasdin K, *Laundry J, *Agrawal A, Brander S. Markam Symposium, Hatfield Marine Laboratory, Newport, OR. June 2019.
- 2018 An assessment of potential microplastic impacts on the health of the *Centropristis striata* fishery. Brander S, *Athey S, *Stienbarger C, *Andrady T, Seaton P, Watanabe W, Monteleone B, Taylor A. International Marine Debris Conference, San Diego, CA. March 2018.
- 2018 Chemical analysis of ingested plastics and associated organic pollutants in wild-caught black sea bass, *Centropristis striata*. *Joseph J, *Stienbarger C, Seaton P, Andrady A, Watanabe W, Monteleone B, Taylor A, Brander S. Society of Environmental Toxicology and Chemistry North America, Sacramento, CA. November 2018.
- 2018 Quantifying marine microplastic ingestion in Black rockfish (*Sebastes melanops*) along the Oregon Coast. *Laundry J, *Agrawal A, *Lasdin K, Brander S. Western Society of Naturalists, Vancouver, WA. November 2018.
- 2018 Quantifying marine microplastic ingestion in Black rockfish (*Sebastes melanops*) along the Oregon Coast. *Laundry J, *Agrawal A, *Lasdin K, Brander S. Beginning and Continuing CAS Undergraduate Research Symposium. Oregon State University, Corvallis, OR. October 2018.
- 2018 Quantifying marine microplastic ingestion in Black rockfish (*Sebastes melanops*) along the Oregon Coast. *Laundry J, *Agrawal A, *Lasdin K, Brander S. State of the Coast, Coos Bay, OR. October 2018.
- 2018 Multigenerational effects of Hormone Disrupting Chemicals in Fish. *Laundry J, *DeCourten B, Brander S. Beginning and Continuing CAS symposium, Oregon State University, Corvallis, OR. October 2018.
- 2018 Combined effects of warming and pollutants on temperature-dependent sex determination, survival, and development across generations in an estuarine fish. *DeCourten B, Connon R, Brander S. Tribal Environmental Health Summit, Corvallis, OR, USA. June 2018.

- 2018 Exposure to EDCs influences development, reproduction and gene expression across generations in an estuarine fish, with notes on co-exposure with elevated temperature. *DeCourten B, Connon R, Brander S. Oregon State University Center for Genome Research and Bioinformatics workshop, Corvallis, OR, USA. June 2018.
- 2018 Trophic transfer of microplastics and an associated legacy pollutant from microzooplankton to their predators. *Athey S, Echevarria M, Taylor A, Andrady A, Brander S. International Association for Great Lakes Research Annual Meeting, Toronto, Ontario, Canada. May 2018.
- 2018 The effects of a microplastic-associated legacy pollutant on the feeding preferences of microzooplankton and their predators. *Athey S, Echevarria M, Andrady A, Taylor A, Brander S. International Marine Debris Conference, San Diego, CA. March 2018.
- 2018 Roles of physiological rates on farm-scale nutrient removal. *Kinsella J, Darrow E, Ferreira JG, Bricker S, Volety A, Alphin T, Posey M, Brander S, Puckett B. Atlantic Estuarine Research Society, Rehoboth Beach, DE. March 2018.
- 2017 Effects of new oyster cultivation on sediment characteristics within Masonboro Island, NC. *Carlton J, Darrow E, Alphin T, Brander S, Puckett B, Posey M. Coastal and Estuarine Research Foundation (CERF) Annual Meeting, Providence, RI. November 2017.
- 2017 Scaling up endocrine disruption effects from individuals to populations: Outcomes depend on how many males a population needs. White JW, Cole BJ, Cherr GN, Connon RE, Brander SM. Society of Environmental Toxicology and Chemistry North America, Minnesota, MN. November 2017.
- 2017 The effects of a microplastic-associated legacy pollutant on the feeding preferences of microzooplankton and their predators. *Athey S, Echevarria M, Andrady A, Taylor A, Brander S. Society of Environmental Toxicology and Chemistry North America, Minnesota, MN. November 2017.
- 2017 The immune response of *Menidia beryllina* exposed to endocrine disrupting compounds in early life. *Roark H, *DeCourten B, *Forbes J, Brander S. Society of Environmental Toxicology and Chemistry North America, Minnesota, MN. November 2017.

Prior to arrival at Oregon State

- 2017 Impacts of marine plastics on a mid-trophic level estuarine fish (*Menidia* species). *Athey S, *Nickel K, *Hall K, *Ruiz G, *Green Z, *Mongo M, Monteleone B, Seaton P, Taylor A, Brander S. Ocean Plastics, Expo 216, Wilmington, NC. March 2017.
- 2017 The development and evaluation of protocols for fluorescently labeling microplastics for use in feeding experiments with larval fish. *Gordon C, Monteleone B, Avery G, Taylor A, Brander S. Ocean Plastics, Expo 216, Wilmington, NC. March 2017.
- 2017 Microplastics: the potential for trophic transfer in a model marine system. *Albotra S, Echevarria M, Monteleone B, Seaton P, Taylor A, Brander S. Ocean Plastics, Expo 216, Wilmington, NC. March 2017.
- 2016 Impacts of marine plastics on a mid-trophic level estuarine fish (*Menidia* species). Athey, S.*, Nickel, K.*, Hall, K. *, Ruiz, G. *, Green, Z. *, Mongo, M. *, Monteleone, B., Seaton, P., Taylor, A., Brander, S. North Carolina Marine Debris Symposium, Wrightsville Beach, NC. September 2016.
- 2015 Investigating the potential for endocrine disruption in wild populations of blue crabs (*Callinectes sapidus*). Goff, A.*, Ryan, L.*, Covi, J., Brander, S. Society for Environmental Toxicology and Chemistry North America, Vancouver, Canada. November 2015.
- 2015 Multiple stressors over multiple generations: assessing the combined effects of climate change and endocrine disruptors. DeCourten, B.*, Connon, R., Brander, S. Society for Environmental Toxicology and Chemistry North America, Vancouver, Canada. November 2015.
- 2015 Microplastics: the potential for bioaccumulation and trophic transfer in a model marine system. S Albotra*, M Echevarria, B Monteleone, P Seaton, A Taylor, S Brander. Society for Environmental Toxicology and Chemistry North America, Vancouver, Canada. November 2015.
- 2015 The effects of early-life bifenthrin exposure on gene expression in *Menidia beryllina*, at different salinities. R Diaz*, R Connon, S Brander. Society for Environmental Toxicology and Chemistry North America, Vancouver, Canada. November 2015.
- 2014 Ibuprofen exposure reduced reproductive output in adult inland silversides. K Jeffries, S Brander, N Fague, R Connon. San Francisco Bay-Delta Conference, 8th Biennial, Sacramento, California. October 2014.

- 2017 Histological assessment of endocrine disrupting compounds on the inland silverside, *Menidia beryllina*. *Forbes J, *DeCourten B, *Burns N, Brander S. Carolinas Society of Environmental Toxicology and Chemistry, Charleston, SC. May 2017.
- 2017 The immune response of *Menidia beryllina* exposed to endocrine disrupting compounds in early life. *Roark H, *DeCourten B, *Forbes J, *Brander S. Carolinas Society of Environmental Toxicology and Chemistry, Charleston, SC. May 2017.
- 2017 Hierchy development in juvenile *A. ocellaris*. *Hudson K, Brander S. Undergraduate Research Symposium, UNCW, Wilmington, NC. May 2017.
- 2016 Evaluation of ecosystem services associated with shellfish culture operations in coastal regions served by the National Estuarine Research Reserve. Darrow ES, Alphin TD, Brander SM, Puckett B, Posey MH. National Estuarine Research Reserve Annual Meeting, Williamsburg, VA. December 2016.
- 2016 Impacts of marine plastics on a mid-trophic level estuarien fish (*Menidia* species). Athey, S.*, Nickel, K.* , Hall, K. * , Ruiz, G. * , Green, Z. * , Mongo, M.* , Monteleone, B., Seaton, P., Taylor, A., Brander, S. State of North Carolina Undergraduate Research Symposium, Durham, NC. May 2016.
- 2016 Effects of three crude oil aromatic constituents on a model fish species *Anoplopoma fimbria*. *J Roberts, *M Boulais, *B Woodall, *M McConville, J Guyomarch, S LeFloch, L Camus, S Brander, A Volety. SETAC North America, Orlando, FL, USA. November 2016.
- 2016 Visualizing skeletal defects in inland silverside (*Menidia beryllina*) exposed to levonorgestrel. *M McConville, *B DeCourten, *B Woodall, A Taylor, S Brander. SETAC North America, Orlando, FL, USA. November 2016.
- 2016 Behavioral response and sublethal impacts of dispersed oil and PAHs on juvenile sablefish, *Anoplopoma fimbria*. McConville, M.*, Roberts, J.* , Brander, S., Volety, A. Carolinas SETAC, Wilmington, NC. May 2016.
- 2016 The effects of fluoxetine on social hierarchy formation in *A. ocellaris* juveniles. Chrisos, A.*, Hudson, K.* , Johnson, M., Leso, A.* , Brander, S. Carolinas SETAC, Wilmington, NC. May 2016.
- 2016 Assessing the effects of estrogenic and androgenic endocrine disruptors over multiple generations in an estuarine model species. *Burns, N., DeCourten, B.* , Brander, S.. Carolinas SETAC, Wilmington, NC. May 2016.

- 2015 Microplastics: the potential for bioaccumulation and trophic transfer in a model marine system. S Albotra*, M Echevarria*, B Monteleone, P Seaton, A Taylor, S Brander. North Carolina Marine Debris Symposium, Nags Head, NC. September 2015.
- 2015 Fluorescently labeled microplastics for use in marine ecotoxicology studies. C Gordon*, B Monteleone, B Avery, P Seaton, A Taylor, S Brander. North Carolina Marine Debris Symposium, Nags Head, NC. September 2015.
- 2015 Microplastics: the potential for bioaccumulation and trophic transfer in a model marine system. S Albotra*, M Echevarria**, B Monteleone, P Seaton, A Taylor, S Brander. Society for Environmental Toxicology and Chemistry North America, Vancouver, Canada. November 2015.
- 2015 Investigating the potential for endocrine disruption in wild populations of blue crabs (*Callinectes sapidus*). Goff, A.*, Ryan, L.* , Covi, J., Brander, S. Carolinas SETAC Annual Meeting, Raleigh, NC. April 2015.
- 2015 Multiple stressors over multiple generations: assessing the combined effects of climate change and endocrine disruptors. DeCourten, B.*, Connon, R., Brander, S. Carolinas SETAC Annual Meeting, Raleigh, NC. April 2015.
- 2015 Multiple stressors over multiple generations: assessing the combined effects of climate change and endocrine disruptors. DeCourten, B.*, Connon, R., Brander, S. Southeastern Estuarine Research Society Annual Meeting, Carolina Beach, NC. March 2015.
- 2015 The effects of trophically transferred Deepwater Horizon oil on *Menidia beryllina*. Gross, J.*, Condon, R., Brander, S. Carolinas SETAC Annual Meeting, Raleigh, NC.
- 2014 The potential for endocrine disruption in the blue crab, *Callinectes sapidus*. Goff, A.*, Ryan, L.* , Covi, J., Brander, S. North Carolina Sea Grant Review, NC Sea Grant, Raleigh, NC. March 2015.
- 2014 Examining the impact of endocrine disrupting compounds on sex determination and development in the blue crab, *Callinectes sapidus* . Goff, A.*, Ryan, L.* , Covi, J., Brander, S. North Carolina Sea Grant Symposium, NC Sea Grant, Raleigh, NC. February 2015.
- 2014 Multiple stressors over multiple generations: assessing the combined effects of climate change and endocrine disruptors. DeCourten, B.*, Brander, S.

Carolinas SETAC Annual Meeting, Carolinas Society of Environmental Toxicology and Chemistry, Clemson, SC. March 2014.

- 2014 The effects of toxicants on the production of ecdysteroids by the Y-organ in *Callinectes sapidus*. Ryan, L.*, Brander, S., Chang, E., Chang, S., Covi, J. SICB Annual Meeting, Society of Integrative and Comparative Biology, Austin, TX. January 2014.
- 2013 The effects of bifenthrin exposure on initial phase *Thalassoma bifasciatum* (bluehead wrasse) brain aromatase (CYP19A2) expression and aggression. Burnsed, K.*, Brander, S. SETAC North America, 24th Annual Meeting, Society of Environmental Toxicology and Chemistry, Nashville, TN. November 2013.
- 2013 The effects of bifenthrin exposure on initial phase *Thalassoma bifasciatum* (bluehead wrasse) brain aromatase (CYP19A2) expression and aggression. Burnsed, K.*, Brander, S. SNCURCS 2013, State of North Carolina Undergraduate Research and Creativity Symposium, Charlotte, NC. May 2013.
- 2013 Development of molecular tools to assess fish health in the San Francisco Estuary. Jeffries, K. M., Brander, S., Fangué, N. A., Connon, R. E. The 11th Biennial State of the San Francisco Estuary Conference, Delta Science Council, Oakland, CA, October 2013.
- 2013 Impacts of endocrine disrupting chemicals on *Menidia beryllina*, a resident fish in the SSJ Delta. Cole, B. J., Brander, S., Jeffries, K. M., Connon, R. E., Cherr, G. N. The 11th Biennial State of the San Francisco Estuary Conference, Delta Science Council, Oakland, CA. October 2013.
- 2013 The effects of sub-lethal chronic exposure to the pesticide bifenthrin on inland silversides (*Menida beryllina*). Jeffries, K.M., Brander, S., DeCourten, B. M.*, Stillway, M. V., Deanovic, L. A., Fangué, N. A., Connon, R.E. American Fisheries Society Cal-Nev, AFS California and Nevada, Davis, CA. September 2013.
- 2013 Endocrine disrupting compounds alter risk-taking and anti-predator behavior in fish (*Poecilia reticulata*). Heintz, M.*, Brander, S., White, J. Carolinas Society of Environmental Toxicology and Chemistry Annual Meeting, Raleigh, NC. March 2013.
- 2013 The role of metabolism in the estrogenicity of bifenthrin in *Menidia beryllina*. DeGroot, B.C.*, Brander, S. Carolinas Society of Environmental Technology and Chemistry Annual Meeting, Raleigh, NC. March 2013.

- 2012 Transfected vs. native: The potential for conflicting measurements of endocrine activity from different cell lines. Brander, S., Davies, B. H., He, G., Connon, R. E., Denison, M. S., Society of Environmental Toxicology and Chemistry, SETAC, Long Beach, CA. November 2012.
- 2012 Transfected vs. native: The potential for conflicting measurements of endocrine activity from different cell lines. Brander, S., Davies, B. H., He, G., Connon, R. E., Denison, M. S., Bay Delta Science Conference, Delta Science, Sacramento, CA. October 2012.

Grant and contract support

Since arriving at OSU, I have been PI or co-PI on grants totalling \$7,815,618. Of that total, \$1,458,608 has supported my program. I have roughly an equal split between Lead PI and co-PI grants, with funding from state (Oregon SeaGrant, California Delta Science Program) and federal sources (EPA, NOAA, NSF). In collaborative grants, it is typical for my co-PIs to require adequate funds, often to support analytical chemistry, or sometimes to support field or laboratory data collection efforts. I have supported multiple graduate students and a post-doctoral research, as well as a lab technician, during much of my time at OSU and throughout most of the pandemic. I currently have six pending proposals out for consideration, all submitted between January – March 2021, at the following programs: SERDP (lead PI), NIH (co-PI), NOAA marine debris (lead PI), NOAA SRSRN (co-PI), California Delta Science Program (lead PI), and USCRP (lead PI).

Years	PI(s)	Agency	Title	Amount	Amount to my program
2021-2022	PSU: Granek, Carvil OSU: Brander <i>Co-PI</i>	Oregon SeaGrant	SEED/LEAF: Microplastics in Oregon's waters: connecting seafood studies to policy solutions	\$50,000	\$14,000
2019-2024	OSU: Harper, Brander, Langfor, Hawkyard WWU: Landis <i>Co-PI</i>	National Science Foundation	Greater convergence research: Pacific Northwest Consortium on Plastics: Convergence on micro- and nanoplastics in aquatic environments	\$3,348,356	\$584,108
2019	Brander <i>PI</i>	OSU Research Equipment Reserve Fund	Micro-FTIR for microplastics analysis	\$70,000	\$70,000
2019-	OSU: Brander,	Environmental	Reducing the	\$849,988	\$428,000

2022	Chappell, White LSU: Armbrust <i>Lead PI</i>	Protection Agency	reliance on early-life stage testing with relevance to euryhaline fishes: Development and implementation of in-vitro assays predictive of early life stage toxicity and population-level effects		
2019-2021	OSU: Brander UCD: Connon USGS: Hladik <i>Lead PI</i>	California Delta Science Council	An evaluation of sublethal and latent pyrethroid toxicity across a salinity gradient in two Delta fish species	\$459,803	\$228,000
2019-2021	Torres, Brander, Henkel, Bernard <i>Co-PI</i>	OSU Agricultural Research Foundation	Kick-starting COZI – the Coastal Oregon Zooplankton Investigation – to understand microplastic and energetic loads at the base of our food web	\$12,500	\$2,000
2018-2020	Brander <i>PI</i>	OSU Agricultural Research Foundation	The potential for marine plastic ingestion in a coastal commercial and recreational fishery	\$12,500	\$12,500
2017-2020	OSU: Brander UNCW: Watanabe, Seaton, Monteleone, Taylor NCSU: Andrady <i>Lead PI</i>	National Oceanographic and Atmospheric Administration	Microplastic ingestion by the black sea bass, <i>Centropristis striata</i> : an assessment of potential impacts on the health of an Atlantic commercial fish species	\$289,000	\$0 (funds remained at UNCW)
2017-2020	UCD: Connon, Fangué, Hung OSU: Brander UMB: Poynton SIU: Lydy <i>Co-PI</i>	California Department of Fish and Wildlife	Contaminant effects on two California fish species and the food web that supports them	\$1,700,000	\$54,000

2016-2020	UNCW: Posey, Alphin, Darrow OSU: Brander <i>Co-PI</i>	National Estuarine Research Reserve Science Collaborative	Evaluation of ecosystem services associated with shellfish culture operations in coastal regions served by the National Estuarine Research Reserve	\$673,500	\$11,000* *(funds that were brought to OSU in 2017)
2015-2020	OSU: Brander, White UCD: Connon SCCWRP: Mehinto <i>Lead PI</i>	Environmental Protection Agency	Linking biological scales across generations: an estuarine and marine model for measuring the ecological impact of endocrine disrupting compounds	\$399,971	\$69,000* *(funds that were brought to OSU in 2017)
Total				\$7,815,618	\$1,458,608

Certifications and Professional Development

Since arriving at OSU

- 2019 Social Justice Education Initiative workshop, Oregon State University, Corvallis, OR
- 2019 Advanced Endnote, OSU Library, Corvallis, OR
- 2017 Professional Learning Community: Transformative Curriculum course, OSU, Corvallis, OR (this course led to development of FW 230X in spring 2019)
- 2017 RNA Seq Workshop, UC Davis Genome Center

Prior to OSU

- 2016 eTEAL Summer Institute - participant ALTC / eTEAL, UNCW
- 2015 eTEAL Summer Institute - participant ALTC / eTEAL, UNCW
- 2014 Let's Publish This Summer - participant ALTC / eTEAL, UNCW
- 2014 "Lean In" book circle - participant UNCW Center for Teaching Excellence
- 2013 The Art and Science of Negotiation - Women in SETAC
- 2013 eTEAL-Supported Pedagogy Initiative Workshop - participant UNCW

**ALTC = Applied Learning and Teaching Community, eTEAL = experiential teaching and learning*

D. Service

Department

- 2020 – present Diversity, Equity, and Inclusion Committee, Fisheries and Wildlife Dept.
- 2019 – present Graduate Council Member, Oregon State University

2019-2020	NSF NRT proposal lead, project committee member, Fisheries and Wildlife, Oregon State University
2018 – 2019	Diversity Committee, Environmental and Molecular Toxicology Dept.
2017 – 2019	Marine Science Initiative Committee, Environmental and Molecular Toxicology, Oregon State University
<i>prior to OSU</i>	
2016 – 2017	Chairs Advisory Committee, University of North Carolina, Wilmington
2016 – 2017	Laboratory Safety Committee, University of North Carolina, Wilmington
2016 - 2017	Center for Marine Science Seawater Committee, University of North Carolina, Wilmington
2015 - 2016	Equipment Committee Chair, University of North Carolina, Wilmington
2015 – 2017	Management of Departmental DEA Permit
2015 - 2016	Long Term Planning Committee, University of North Carolina, Wilmington
2014 - 2015	Equipment Committee, University of North Carolina, Wilmington
2014 - 2015	Biotechnology Curriculum Committee, University of North Carolina, Wilmington
2013	Seminar Committee, University of North Carolina, Wilmington
College	
2019 – present	OSU HATCH, Oregon Agricultural Experiment Station, W-3045 Mechanisms and Mitigation of Agrochemicals, College of Agricultural Sciences
University	
2021 – present	President's Council on the Status of Women (PCOSW)
External	
2020-2021	Microplastics Health Effects Workshop, California, Working Group Member
2021	Oregon Sea Grant SEED Advisory Panel co-lead (2021)
2020-2021	Microplastics Science Advisory Committee co-chair, Ocean Protection Council, Sacramento, CA
2020-present	Green Ribbon Science Panel, Department of Toxic Substances Control, Sacramento, CA
2019-present	Technical Advisory Team, Contaminants Working Group, Delta Science, Sacramento, CA
2019-2020	Southern California Coastal Water Research Project Microplastics Workshop. Sub-group leader, speaker, participant, paper lead. Costa Mesa, CA.

2019 Chesapeake Research Consortium Microplastics Workshop. Online Presenter. Silver Spring, MD.

Community Service

2019 Garfield Elementary School STEM night leader, April 2019
 2017 – 2020 500 Women Scientists Corvallis pod, Co-Lead
 2013 Wrightsville Beach Elementary, Wrightsville Beach, NC: Science Fair Judge
 2012 Hoggard High School, Wilmington, NC: Faculty Mentor Senior Project
 2011 Holly Shelter Middle School, Castle Hayne, NC: Science Fair Judge

Professional association/society involvement

2021-present Interstate Technology and Regulatory Council, Microplastics Group Member
 2018-present SETAC North America Board Member (2018 – present), NASAC (Student association for SETAC) committee liaison
 2018-present SETAC Microplastics Research Interest Group, Co-Leader (2018-present)
 2018-present American Geochemical Union, Ocean Sciences

prior to OSU

2013-2014 Carolinas Society of Toxicology and Chemistry, Chapter Vice President
 2014-2015 Carolinas Society of Toxicology and Chemistry, Chapter President
 2016 Carolinas Society of Toxicology and Chemistry, Annual Meeting Host

Conferences

2021 Microplastics Interest Group Topical Mixer co-host. SETAC Europe. May 2021.
 2021 Session Co-Chair (with S. Hutton, A. Goncalves, I. Campos). Multiple Stressor Effects in Aquatic Organisms and Ecosystems Under a Changing Climate. SETAC Europe. May 2021.
 2021 Meeting topic champion / steering committee member. SETAC Special Science Symposium on Microplastics. March – April 2021.
 2021 Short course Co-Leader (with S. Harper) Micro and nanoplastic occurrence and effects. Pacific Northwest SETAC, Virtual. April 2021.
 2021 Represented, presented on behalf of SETAC North America board at Pacific Northwest SETAC meeting, Virtual. April 2021.
 2020 Session Co-Chair (with A. Biales, J. Head, R. Bhandari) Epigenetics and Environmental Exposures. Society of Environmental Toxicology and Chemistry North America Annual Meeting, Virtual. November 2020

- 2020 Session Co-Chair (with S. Harper, J. Lazorchak, K. Ho, R. Burgess, K. Kulacki) Micro- and Nanoplastics: Harmonizing Methods & Addressing Research Challenges. Society of Environmental Toxicology and Chemistry North America Annual Meeting, Virtual. November 2020
- 2020 Microplastics Interest Group Topical Mixer co-host. SETAC SciCon2. November 2020.
- 2020 Session Co-Chair (with S. Harper) How much is too much?: Assessing the risk of nano and microplastic exposure in aquatic and terrestrial organisms. September 2020 (delayed due to COVID-19)
- 2020 Session Co-Chair (with E. Granek, D. Horn, S. Athey) Microplastic Occurrence and Effects, Ocean Sciences, San Diego, CA. February 2020.
- 2020 Short course Co-Leader (with S. Harper) Micro and nanoplastic occurrence and effects. Pacific Northwest SETAC, Bremington, WA. February 2020.
- 2020 Represented, presented on behalf of SETAC North America board at Pacific Northwest SETAC meeting, Bremerton, WA. February 2020.
- 2019 Session Co-Chair (with A. Biales, J. Head, R. Bhandari) Epigenetics and Environmental Exposures. Society of Environmental Toxicology and Chemistry North America Annual Meeting, Toronto, Canada. November 2019.
- 2019 Session Co-Chair (with K. Ho, R. Burgess, S. Athey) Micro and Nano-Plastics Methods. Society of Environmental Toxicology and Chemistry North America Annual Meeting, Toronto, Canada. November 2019.
- 2018 Session Co-Chair (with A. Todgham and N. Fanguie, half-day session). Impacts of Multiple Stressors in Coastal Ecosystems on Organism Health. Ocean Sciences Meeting, Portland, OR. November 2018.
- 2018 Session Co-Chair (with A. Biales, J. Head, R. Bhandari) Epigenetics and Environmental Exposures. Society of Environmental Toxicology and Chemistry North America Annual Meeting, Sacramento, CA. November 2018.
- prior to OSU*
- 2016 Session Co-Chair (with R. Connon and A. Biales, half-day session). Epigenetics and Environmental Exposures: Mechanisms and Effects from Invertebrates to Fishes. Society of Environmental Toxicology and Chemistry North America Annual Meeting, Orlando, FL.
- 2013 Session Co-Chair (with K. Kuivila and S. Hecht, day-long session). Contaminants of Emerging Concern for Fish: Assessing Exposure and Effects Across Biological Scales. Society of Environmental Toxicology and Chemistry North America Annual Meeting.

Editorial experience

2021	Special Issue Editor, Microplastics and Human Health, <i>Frontiers in Water</i> 2021 - present
2020-2021	Special Issue Editor, Agrochemicals in Aquatic Ecosystems, <i>Toxics</i>
2018-2019	Special Issue Co-Editor, Microplastic Pollution, <i>Limnology & Oceanography</i>
2021	Review Editor, <i>Frontiers in Water</i> 2021 – present
2017-present	Associate Editor, <i>PeerJ</i> 2017 – present

Journal reviews

Total of 53 papers reviewed 2017 – present, 12 on average per year, including one paid book consultancy.

Environmental Science and Technology; Environmental Science and Technology Letters, Journal of Agricultural and Food Chemistry, Aquatic Toxicology; Environmental Pollution; Journal of Freshwater Ecology; Asian Journal of Andrology, GAIA, Pesticide Biochemistry and Physiology; Science of the Total Environment; PLoS ONE; Toxicology Letters, Archives of Environmental Contamination and Toxicology, Environmental Toxicology and Chemistry, Environmental Toxicology and Pharmacology, Ecotoxicology and Environmental Safety, Journal of Epigenomics, Journal of Environmental Science, Conservation Physiology, Ecosystems, Chemosphere, Animal Reproduction, Archives of Environmental Contamination and Toxicology, Biological Reviews, Ecotoxicology, Toxicology and Industrial Health, Environments, Integrative and Comparative Biology, Marine Pollution Bulletin, Nature Scientific Reports, Fish Physiology and Biochemistry, Journal of Epigenomics, Marine Ecological Progress Series, Biological Reviews, Environment International

Proposal reviews

National Contaminant Advisory Group, Fisheries and Oceans Canada (2020), Northern Pacific Research Board (2019), Minnesota Sea Grant (2019), Graduate Women in Science, GWIS (2019), Smith Fellowship (2016, 2018), USC Sea Grant (2016), NSF PIRE (2016), California Sea Grant College Program (2016), NOAA Gulf of Mexico (2015), California Sea Grant (2015), Department of Defense (2017)

Proposal panelist

2021	National Science Foundation, Understanding Rules of Life: Emergent Networks Program, online panel
2020	European Commission, Horizon 2020 Framework Programme “SC1-BHC-36-2020: <i>Micro- and nano-plastics in our environment: Understanding</i>

exposures and impacts on human health. (originally scheduled for Brussels, Belgium - moved online due to Covid)

prior to OSU

- 2016 NOAA Northern Gulf of Mexico Ecosystems and Hypoxia Assessment (NGOMEX) Research Program, Silver Spring, Maryland
- 2015 Environmental Protection Agency: Science to Achieve Results (STAR) Fellowship Program, online panel

E. AWARDS

- 2020 Shining Star Award, Fisheries and Wildlife Department

F. DIVERSITY, EQUITY, and INCLUSION

Prior to and since arriving at Oregon State University, I have had a strong commitment to enhancing diversity, equity, and inclusion both in STEM and more generally in higher education. In 2018, shortly after arriving in Corvallis, I joined the organization 500 Women Scientists and became a co-leader of the Corvallis pod (chapter). Over a three year period we organized groups for marches and held events that highlighted the work of female scientists and professionals in the community. I also co-wrote two articles on improving the status of mothers before and during the Covid-19 pandemic, and was part of putting together a petition to OSU to improve their support of families during Covid. I have been a member of the diversity committees in both the Environmental and Molecular Toxicology Dept., as well as the Fisheries and Wildlife Dept., for a cumulative total of over two years. Additionally, I play a role in enhancing diversity at the Society of Environmental Toxicology and Chemistry, a group I have been a member of since 2005. As part of the North America board of directors, I have promoted the role of underrepresented groups through helping craft responses to national events, such as the protests against abuse of the Black community in the U.S. during the summer of 2020. I am now a formal member of an ad-hoc group working to systemically improve the support of underrepresented groups in the society, as part of a multiple-year effort that started in late 2020. Most recently, I was asked to join a university level committee, the President's Council on the Status of Women. I also make an effort to educate my lab and to allow them the

opportunity to educate me on matters important to them in terms of DEI, with lab meetings that focus on recent events or opinion pieces held every 3-4 weeks in place research discussions. I plan to continue these activities and to make every effort to learn and grow within the OSU community and through external connections to the greater scientific community.