

# ROSS WHIPPO

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## EDUCATION

UNIVERSITY OF OREGON	Charleston, OR
PhD, Biology	2023/06
Focus: Coastal Trophic Ecology	
Advisor: Aaron W.E. Galloway	
UNIVERSITY OF BRITISH COLUMBIA	Vancouver, BC
Master of Science, Zoology	2013/12
Focus: Marine Community Ecology	
Advisor: Mary I. O'Connor	
UNIVERSITY OF WASHINGTON	Seattle, WA
Bachelor of Science, Aquatic and Fishery Sciences	2011/08
Cum Laude, Faculty Honors	
SEATTLE CENTRAL COMM COLLEGE	Seattle, WA
Associate of Arts	2009/08

## PROFESSIONAL APPOINTMENTS

SMITHSONIAN INSTITUTION	Edgewater, MD
Research Associate, Tennenbaum Marine Observatories Network	(2018/05-2021/05)
SMITHSONIAN INSTITUTION	Edgewater, MD
Lead Technician, Tennenbaum Marine Observatories Network	(2015/01-2018/05)
HAKAI INSTITUTE	Calvert Island, BC
Dive Technician, Kelp and Seagrass Monitoring Team	(2014/04-2014/09)
UNIVERSITY OF BRITISH COLUMBIA	Vancouver, BC
Graduate Researcher, Department of Zoology	(2011/09-2013/12)
FRIDAY HARBOR LABORATORIES	Friday Harbor, WA
Dive Technician, Duggins Lab	(2011/04-2011/08)

## PUBLICATIONS

Galloway AWE, Gravem SA, Kobelt JN, Heady WN, Okamoto DK, Sivitilli DM, Saccomanno VR, Hodin J, **Whippo R** (2023). Sunflower sea star predation on urchins can facilitate kelp forest recovery. *Proc. R. Soc. B.* 290:20221897. 20221897. <http://doi.org/10.1098/rspb.2022.1897>

Harper LM, Lefcheck JS, Jones S, Foltz Z, **Whippo R**, Duffy JE (2022). Blinded by the bright: how species-poor habitats contribute to regional biodiversity across a tropical seascape. *Diversity and Distributions* DOI: 10.1111/ddi.13632

**Whippo R**, Fields SA, Aylesworth L (2022). SCUBA Kelp Report. Oregon Department of Fish and Wildlife Marine Resources Program. Newport, OR. [https://ecologyreports.oregonmarinereserves.com/Data\\_Files/7.%20Collaborations/SCUBA%20Algal%20Swath%20Report/ODFW\\_markdown\\_algae.html](https://ecologyreports.oregonmarinereserves.com/Data_Files/7.%20Collaborations/SCUBA%20Algal%20Swath%20Report/ODFW_markdown_algae.html)

de Pablo LX, Lefcheck JS, Harper L, Paul VJ, Jones S, **Whippo R**, Seemann J, Kline DI, Duffy JE (2021). A doubling of stony coral cover on shallow fore reefs at Carrie Bow Cay, Belize from 2014 to 2019. *Scientific Reports* 11, 19185 <https://doi.org/10.1038/s41598-021-96799-2>

Ritter CJ, Harper LM, Lefcheck JS, Paul VJ, **Whippo R**, Jones S, Ogburn MB, Duffy JE (2021). Patterns of consumption across a Caribbean seascape: Roles of habitat and consumer species composition through time. *Frontiers in Marine Science* 8:742907. doi: 10.3389/fmars.2021.742907

Whalen M, **Whippo R**, (64 additional authors), and Duffy JE (2020). Climate drives the geography of marine consumption by changing predator communities. *PNAS* 117 (45) 28160-28166; DOI: 10.1073/pnas.2005255117.

**Whippo R**, Knight NS, Prentice C, Cristiani J, Siegle MR, and O'Connor MI (2018). Epifaunal diversity patterns within and among seagrass meadows suggest landscape-scale biodiversity processes. *Ecosphere* 9(11):e02490. 10.1002/ecs2.2490

Staaterman E, Ogburn MB, Altieri AH, Brandl SJ, **Whippo R**, Seemann J, Goodison M, Duffy JE (2017). Bioacoustic measurements complement visual biodiversity surveys: preliminary evidence from four shallow marine habitats. *Marine Ecology Progress Series* 575: 207-215. doi:10.3354/meps12188

Lowe AT, **Whippo R**, Galloway AWE, Britton-Simmons KH, Dethier MN (2015). Sedentary urchins influence benthic community composition below the macroalgal zone. *Marine Ecology* 36: 129–140. doi:10.1111/maec.12124

**Whippo R** (2013). Seagrass epifaunal communities of Barkley Sound: Epifaunal diversity varies across small spatial and temporal scales (Master's Thesis). doi:10.13140/RG.2.2.10089.70245

## FELLOWSHIPS, GRANTS, AND AWARDS

National Science Foundation - INTERN supplement, 2022, \$7,000

PADI Foundation Grant, 2022, \$4750

Friday Harbor Graduate Research Fellowship, 2022, \$4000

Friday Harbor Graduate Research Fellowship, 2021, \$2400

Friday Harbor Graduate Research Fellowship, 2020, \$2300  
Oregon Department of Fish and Wildlife Graduate Scholarship, 2019, \$1500  
Friday Harbor Graduate Research Fellowship, 2019, \$1500  
National Science Foundation - Graduate Research Fellowship, 2018, \$138,000  
Raymund Fellowship, UO, 2018-2019, \$20,000  
Faculty of Science Graduate Award, UBC, 2011, \$2000  
Kevin Flanagan Travel Award, American Academy of Underwater Sciences, 2013, \$800  
Graduate Research Grant, Bamfield Marine Sciences Centre, 2013, \$1500  
Dean's Medal, College of the Environment, UW, 2011  
Faculty Merit Award, School of Aquatic & Fishery Sciences, UW, 2011, \$500  
Mary Gates Endowment Scholarship, UW, 2010, \$2500

## OTHER PROFESSIONAL EXPERIENCE

BAMFIELD MARINE SCIENCES CENTRE Asst. Dive and Safety Officer, Marine Operations	Bamfield, BC (2013/05-2013/09)
SEATTLE AQUARIUM Shift Supervisor, Interpretive Staff	Seattle, WA (2008/05-2009/08)

## TECHNICAL SKILLS AND CERTIFICATIONS

Scientific Diver (American Academy of Underwater Sciences)  
Divemaster (Professional Association of Diving Instructors)  
Small Vessel Operator Proficiency (Transport Canada)  
Marine Reserve Survey Diver (Oregon Department of Fish and Wildlife)  
Reef Life Survey Diver Trainer (Reef Life Survey/University of Tasmania)  
CPR & Oxygen Administration (Divers' Alert Network)  
GCMS Operation (Shimadzu)  
microCT Operation (Bruker SkyScan)  
Software (R, PRIMER, GCMS PostRun Analysis, Slicer, Linux, MS Office, Git)

## PRESENTATIONS

'The endangered sunflower star *Pycnopodia helianthoides* alters sea urchin grazing behavior through trait-mediated interactions' (2022) - oral, Western Society of Naturalists, Oxnard, CA, USA  
'Appetite for destruction: A story of sunflower stars, urchins, and fear!' (2022) - oral, University of Washington Friday Harbor Labs Seminar Series (**Invited**), Friday Harbor, WA, USA  
'From the Poles to the Equator: Diving for Marine Ecology' (2021) - oral, University of Washington Stories in Marine Biology Seminar (**Invited**), Seattle, WA, USA  
'In Search of the Seaweed Forests of Antarctica' (2019) - oral, University of British Columbia BLISS Seminar (**Invited**), Vancouver, BC, Canada

'In Search of Seaweeds in Antarctica: A Diver's Journey to the Bottom of the World' (2019) - oral, 7 Devils Science Pub Series (**Invited**), Coos Bay, OR, USA

'Macroalgal Communities in Oregon Marine Research Reserves' (2019) - poster, Markham Symposium, Newport, OR, USA

'Smithsonian Scientific Diving and the MarineGEO Network' (2018) - oral, Baltimore/D.C. Dive Show (**Invited**), Baltimore, MD, USA

'Logistical Realities of Simultaneous, Multi-OM Operations: Challenges and Lessons Learned from Two Case Studies' (2017) - oral, American Academy of Underwater Sciences Symposium, Alpena, MI, USA

'Ocean Bitemap: Creating a global map of marine predation' (2016) - oral, American Academy of Underwater Sciences Symposium, Newport, RI, USA

'MarineGEO: A global biodiversity network' (2016) - oral, Pelican Resort Science Cafe (**Invited**), Dangriga, Belize

'The MarineGEO Network: Integrated ecological observatories for changing marine ecosystems' (2015) - oral, American Academy of Underwater Sciences Symposium, Key West, FL, USA

'The MarineGEO Network: Observatories for changing marine ecosystems' (2015) - oral, Pelican Resort Science Cafe (**Invited**), Dangriga, Belize

'Invertebrate epifaunal communities are structured by local and regional processes in seagrass' (2013) – oral (**Winner – best oral presentation**), American Academy of Underwater Sciences Symposium, Curaçao

'Linking local and regional diversity of invertebrate mesograzers communities' (2013) – oral, Ecological Society of America, Minneapolis, MN, USA

'The application of metacommunity theory to BC seagrass meadows' (2012) – oral, Pacific Ecology and Evolution Conference, Bamfield, BC, Canada

'Benthic community structure mediated by the red sea urchin in the San Juan Archipelago' (2011) - oral, Western Society of Naturalists Conference, Vancouver, WA, USA

'Effects of the red sea urchin on benthic invertebrate communities: A link to spatial subsidies' (2011) – oral (**Winner – best oral presentation**), American Academy of Underwater Sciences Symposium, Portland, Maine, USA

'Effects of the red sea urchin on benthic invertebrate communities: A link to spatial subsidies' (2011) – poster (**Winner – best poster**), Salish Sea Ecosystem Conference, Vancouver, British Columbia, Canada

## TEACHING EXPERIENCE

UNIVERSITY OF OREGON

Teaching Assistant, Oregon Institute of Marine Biology

Charleston, OR

(2019/10)

**Marine Conservation**, 400-level, 10 students supervised. Participated in weekly lecture activities, led field trips, and provided feedback on independent research projects. Graded exams and papers.

UNIVERSITY OF WASHINGTON

Teaching Assistant, Friday Harbor Labs

Friday Harbor, WA

(2014/08, 2010/08)

**Scientific Diving**, 400-level, 6-8 students supervised. Developed curricula for a two-week intensive scientific diving course with the Friday Harbor Laboratories dive safety officer. Supervised divers in training and conducted rescue, task loading and survey technique in-water exercises.

UNIVERSITY OF BRITISH COLUMBIA  
Graduate Teaching Assistant, Department of Biology

Vancouver, BC  
(2011/09-2013/12)

**Advanced Ecology**, 300-level, 30-40 students supervised. Led weekly lab sessions, graded lab assignments and exams, planned and led monthly field trips, and held office hours for student assistance.

**Fundamentals of Ecology**, 200-level, 30-40 students supervised. Led weekly lab sessions, graded lab assignments and exams, planned and led monthly field trips, and held office hours for student assistance.

**Fundamentals of Genetics**, 200-level, 40-50 students supervised. Led weekly lecture sessions, graded assignments and exams, and held office hours for student assistance.

**Aquatic Ecology**, 400-level, 25 students supervised. Led weekly lab sessions, graded lab assignments and exams, planned and led monthly field trips, and held office hours for student assistance.

UNIVERSITY OF WASHINGTON  
Undergraduate Teaching Assistant, SAFS

Seattle, WA  
(2011/03)

**Biology of Shellfish**, 300-level, 40-50 students supervised. Assisted with lab activities and delivered select lectures on marine invertebrate biology. Supervised students on field trips, helped develop exams and assignments.

## WORKSHOPS

'Introduction to R Analyses', UO, 2019, 2022  
'Using Version Control in Research', UO, 2019

## UNDERGRADUATES AND INTERNS MENTORED

(graduation year, current status if known)

UO	Ethan Porter-Huges ('22, UO graduate)
Smithsonian	Celina Scott-Buechler ('19, PhD student at Stanford), Claire Gasque ('19, PhD student at Berkeley), Rachel Wimmer ('16)
UBC	Carolyn Prentice ('13, Nearshore Research Technician at Hakai), Samantha James ('12, Biologist at Pacific Salmon Foundation), John Cristiani ('09, PhD

student at UBC), Frances Ratcliffe ('15, Marine Assessment Officer at Natural Resources Wales), Nicole Knight ('14, PhD student at McGill)

## **LEADERSHIP AND SERVICE**

Director-at-Large (Scholarships, Standards, Diversity), Board of Directors, American Academy of Underwater Sciences, 2023-Present, 2019-2021

Kelp Node Transboundary Working Group, Quadra Centre for Coastal Dialogue, Subtidal Group Leadership, 2022

Land Acknowledgement Committee, University of Washington, 2022

Dive Presenter, San Juan Island Schools, Diver for a Day, 2022, 2011

Secretary, Board of Directors, American Academy of Underwater Sciences Foundation, 2021-Present

Appointed Director (Scholarships), Board of Directors, American Academy of Underwater Sciences, 2018-2019

Advisory Committee, Black Girls Dive Foundation, 2018-Present

Committee Member, American Academy of Underwater Sciences, Membership, Scholarship, and Standards Committees 2012-Present

Science Volunteer, Friday Harbor Elementary, Expert Day, 2011-2012

Education Volunteer, Friday Harbor Elementary, Science Outreach Program, 2009

Volunteer, Seattle Aquarium, Life Sciences and Environmental Interpretation, 2008-2010