Name: **JULIA C. NOTAR**

Address: Friday Harbor Laboratories
University of Washington
620 University Drive
Friday Harbor, WA 98250

E-mail: julia.c.notar@gmail.com
Website: http://jnotar.github.io

EDUCATION

2022 **Duke University**, PhD, Biology
Dissertation: Vision and Light-Guided Behavior in Sea Urchins and Brittle Stars
Major Advisor: Dr. Sönke Johnsen

2016 **UCLA**, MS, Biology
Master's Thesis: A Comparative Study of Sea Urchin Visual Ecology
Major Advisor: Dr. Malcolm S. Gordon

2009 **UCLA**, BS, Marine Biology

PROFESSIONAL EXPERIENCE

2025-present **Postdoctoral Scholar**
Friday Harbor Laboratories, University of Washington

2025 **Visiting Scholar**
Johnsen Lab, Biology Department, Duke University

2023-24 **Postdoctoral Researcher**
Johnsen Lab, Biology Department, Duke University

2022-23 **Associate in Research**
Johnsen Lab, Biology Department, Duke University

2016-22 **PhD Student Researcher**
Johnsen Lab, Biology Department, Duke University

2015 **Graduate Student Researcher**
Gordon Laboratory, Department of Ecology and Evolutionary Biology, UCLA

2014 **Research Assistant**
Gordon Laboratory, Department of Ecology and Evolutionary Biology, UCLA

2010-13 **Whale Photo ID Intern and Volunteer Researcher**
Aquarium of the Pacific, Long Beach, CA

2010 **Research Assistant**
Shipe Laboratory, Department of Ecology and Evolutionary Biology, UCLA

PUBLICATIONS

PEER-REVIEWED

Notar, JC, Havens, HM, and Johnsen, S. (in prep). Behavioral sensitivity to light varies across the body of *Lytechinus variegatus*.

Notar, JC, Go, M, and Johnsen, S. (2023). Learning without a brain: Classical conditioning in the ophiuroid *Ophiocoma echinata*. *Behavioral Ecology and Sociobiology*, 77:126, doi.org/10.1007/s00265-023-03402-x

Notar, JC, Meja, B, and Johnsen, S. (2022). Testing Mechanisms of Vision: Sea Urchin Spine Density Does Not Correlate with Vision-Related Environmental Characteristics. *Integrative and Comparative Biology,* icac119, doi: 10.1093/icb/icac119

Gordon, MS and **Notar, JC**. (2015). Can Systems Biology Separate Evolutionary Analogies (Convergent Homoplasies) From Homologies? *Prog. Biophys. Mol. Biol.* 117 (2015), 19-29. doi: 10.1016/j.pbiomolbio.2015.01.005

Notar, JC and Gessow, J. (2009). Ecology of an intertidal leech: expanding the range of *Malmiana buthi.* Abstracts of the Annual Meeting of the Southern California Academy of Sciences. *Bull. So. Cal. Acad. Sci.*, 108(2), 112. doi: 10.3160/0038-3872-108.2.70

DIVERSITY, EQUITY, INCLUSION & ANTI-RACISM PUBLICATIONS

Sosa, K, Noor, MAF, **Notar, JC**, and Eily, A. (2020). Some steps to create a more inclusive classroom environment. *figshare*. Online resource. doi: 10.6084/m9.figshare.13360559

Sosa, K, **Notar, JC**, and Eily, A. (2020). Fostering open dialogue in the classroom. *figshare*. Online resource. *doi:* 10.6084/m9.figshare.13360547

Sosa, K, Quarles, B, **Notar, JC**, Gartner, V, Simha, A, Allen, R, and Carley, LN. (2020). Duke Biology IDEA Actions for Racial Equity Demands. *figshare*. Online resource. doi: 10.6084/m9.figshare.13003181

Sosa, K, Quarles, B, **Notar, JC**; Gartner, V, Simha, A, Allen, R, *and* Carley, LN. (2020). Duke Biology IDEA Anti-Racism in Science Initiative. *figshare*. Online resource. *doi:* 10.6084/m9.figshare.13003163

GRANTS AND FELLOWSHIPS

2025 **Student/Postdoc Travel Award** ($2,150), BioInspired Sensing Computing and Control with International Teams Workshop

2022 **Graduate Student Travel Award** ($300), Animal Behavior Society

2017-21 **NDSEG Fellowship** ($153,000), Air Force Office of Scientific Research, US Department of Defense

2017-21 **Grant-in-Aid** ($1,000, awarded 5 consecutive years), Biology Department, Duke University

2021 **Jo Rae Wright Fellowship for Outstanding Women in Science** ($5,000), The Graduate School, Duke University

2021 **International Dissertation Research Travel Award** ($3,000), The Graduate School, Duke University

2019 **Lerner-Gray Grant for Marine Research** ($3,106), Richard Gilder Graduate School, American Museum of Natural History

2018 **Graduate Student Training Enhancement Grant** ($3,332), Office of the Vice Provost for Interdisciplinary Studies, Duke University

2018 **Data Expedition Award** ($1,500), Information Initiative @ Duke, Duke University

2018 **Grant-in-Aid of Research** ($700), Sigma Xi Society

2017 **Summer Research Fellowship** ($5,500), The Graduate School, Duke University

2017 **Robert L. Fernald Endowed Fellowship** ($3,500), Friday Harbor Laboratories, University of Washington

2015 **Research/Travel Award** ($2,000), Department of Ecology and Evolutionary Biology, UCLA

2015 **AAUS Dive Fellowship** ($125), Department of Ecology and Evolutionary

Biology, UCLA

HONORS AND AWARDS

2021 **Jo Rae Wright Fellowship for Outstanding Women in Science**, The Graduate School, Duke University

2021 **Honorable Mention, Mary Price Award for Best Student Presentation**
Division of Invertebrate Zoology, Society for Integrative and Comparative Biology Annual Virtual Meeting

2020 **2nd Place Lightning Talk**
Duke VisionFest 2020, Duke University

2019 **Dean's Award for Inclusive Excellence in Graduate Education**, as a member of the Biology Department's **Graduate Student IDEA Committee**, on behalf of the Ph.D. Program in Biology
The Graduate School, Duke University

2016 **1st Place Graduate Student poster**
19th Annual Biology Research Symposium, Department of Ecology and Evolutionary Biology, UCLA

2015 **Schechtman Teaching Award** for Outstanding Merit in Instruction
Department of Ecology and Evolutionary Biology, UCLA

FIRST-AUTHOR PRESENTATIONS (* = POSTER)

2025 *Echinoder-bot-a: A sea urchin-inspired camera*
Notar, JC and Havens, HM
Society for Integrative and Comparative Biology Annual Meeting, Atlanta, GA

2025 *Vision, Learning, and Distributed Processing in a group of Brainless Marine Invertebrates (Echinoderms)*
Notar, JC
BioInspired Sensing Computing and Control with International Teams Workshop, UC Boulder, Boulder, CO

2024 *Turn on the Bright Lights: The Sea Urchin* L. variegatus *is not uniformly sensitive to light*
Notar, JC, Havens, HM, Johnsen, S
Society for Integrative and Comparative Biology Annual Meeting, Seattle, WA

2023 *Spatial Vision and Light-Guided Behavior in Two Groups of Echinoderms*
Notar, JC, Johnsen, S
International Conference on Invertebrate Vision, Bäckaskog Castle, Sweden

2023 *No Brain? No Problem! Brittle Stars are Capable of Associative Learning*
Notar, JC, Go, M, and Johnsen, S
Society for Integrative and Comparative Biology Annual Meeting, Austin, TX

2022 *Sight as a Sea Urchin: No Eyes, No Problem*
Notar, JC
Duke VisionFest, Duke University, Durham, NC

2022 *Learning with a Decentralized Nervous System in the Brittle Star* Ophiocoma echinata
Notar, JC, Go, M, and Johnsen, S
International Congress of Neuroethology 2022, Lisbon, Portugal

2022 *Classical Conditioning in an Animal Without a Brain, the Brittle Star* Ophiocoma echinata
Notar, JC, Go, M, and Johnsen, S
Animal Behavior Society Annual Meeting, San Jose, Costa Rica

2022 *Training Animals Without Brains: Brittle Stars Exhibit Associative Learning*

Notar, JC, Go, M, and Johnsen, S
Society for Integrative and Comparative Biology Annual Virtual Meeting

2021 *A Living Shag Rug: Sea Urchin Spine Density Differs by Habitat and has Consequences for Vision*
Notar, JC, Meja, B, and Johnsen, S
Society for Integrative and Comparative Biology Annual Virtual Meeting
Honorable Mention, Mary Price Award for Best Student Presentation, Division of Invert. Zoology

2020 *Trends in Spatial Acuity Across the Sea Urchins**
Notar, JC and Johnsen, S
Society for Integrative and Comparative Biology Annual Meeting, Austin, TX

2020 *Sea Urchins: Sight Without Eyes*
Notar, JC
Duke VisionFest, Duke University, Durham, NC
Second place, Lightning Talk Competition

2019 *Sea Urchin Vision in Featureless vs. Spatially Complex Environments*
Notar, JC and Johnsen, S
Society for Integrative and Comparative Biology Annual Meeting, Tampa, FL

2018 *Seeing Without Eyes: Exploring the Visual Ecology of Sea Urchins*
Notar, JC
Invited seminar, Whitney Laboratory for Marine Bioscience, University of Florida, St. Augustine, FL

2018 *Do (Eyeless) Sea Urchins have Color Vision?*
Notar, JC and Johnsen, S
Society for Integrative and Comparative Biology Annual Meeting, San Francisco, CA

2017 *Future Directions in the Whole Body Eye of Sea Urchins: Effects of Phylogeny, Light Intensity, and Spine Density*
Notar, JC and Gordon, MS
Society for Integrative and Comparative Biology Annual Meeting, New Orleans, LA

2016 *A Comparative Study of Sea Urchin Visual Ecology**
Notar, JC and Gordon, MS
19th Annual Biology Research Symposium, Department of Ecology and Evolutionary Biology, UCLA
1st Place, Graduate Student Poster

2016 *A Comparative Study of Sea Urchin Visual Ecology**
Notar, JC and Gordon, MS
Society for Integrative and Comparative Biology Annual Meeting, Portland, OR

2015 *A Comparative Study of Sea Urchin Visual Ecology*
Notar, JC and MS Gordon
EcoEvoPub Seminar, Department of Ecology and Evolutionary Biology, UCLA

CO-AUTHORED CONFERENCE ABSTRACTS (* = UNDERGRADUATE MENTEE)

2023 *A role for the central complex in magnetoreception*
Havens, H, **Notar, JC,** Taylor, B, Lohmann, K
Society for Integrative and Comparative Biology Annual Meeting, Austin, TX

2021 *Insects go With Flow: A Mathematical Model of Induced Flow and Cooling During Flight*
Meja, B*, **Notar, JC**, and Johnsen, S
Society for Integrative and Comparative Biology Virtual Annual Meeting

2020 *Associative Learning in the Brittle Star* Ophioderma brevispinum

Go, M*, **Notar, JC**, and Johnsen, S
Society for Integrative and Comparative Biology Annual Meeting, Austin, TX

TEACHING EXPERIENCE

2019-2022 **Certificate in College Teaching Program**
The Graduate School, Duke University

2012-22, '25 **Visiting Scholar[3], Teaching Associate[1,2], Teaching Assistant[1,3]**
Department of Ecology and Evolutionary Biology, UCLA[1]
Department of Integrative Biology and Physiology, UCLA[2]
Biology Department, Duke University[3]

Courses: Animal Environmental Physiology[1], Advanced Experimental Statistics[2], Biology of Invertebrates[1], Biology of Marine Tetrapods[1], Biology of Vertebrates[1], Experimental Marine Invertebrate Biology[1], Field Marine Ecology[1], Genetics & Evolution[3], Introduction to Ecology & Behavior[1], Living Ocean[1]

2025 **Guest Lecture**: *Vision and Visual Ecology in Marine Invertebrates*
Behavioral Ecology of Marine Invertebrates, Friday Harbor Laboratories, University of Washington; Prof. Mar Wohnam

2018 **Guest Lecture**: *Answering Biological Questions Using Circular Data and Analysis in R*
Biological Data Analysis (Bio 304), Duke University; Prof. Tom Mitchell-Olds
Duke Data Expedition, Information Initiative @ Duke, Duke University

2017 **Guest Lecture:** *Future Directions in the Whole Body Eye of Sea Urchins: Effects of Phylogeny, Light Intensity, and Spine Density*
Marine Invertebrate Zoology, Friday Harbor Laboratories, University of Washington**;** Profs. Gustav Paulay and Peter Funch

MENTORSHIP

2024-25 **Division of Invertebrate Zoology Mentor** to undergraduates attending their first scientific meeting
Society for Integrative and Comparative Biology Annual Meeting

2015-23 **Graduate Student Advisor** to seven undergraduate researchers
Biology Department, Duke University
Department of Ecology and Evolutionary Biology, UCLA

2021-22 **Trinity College Peer Mentoring Fellow**
Duke Interdisciplinary Studies, Duke University

2017 **Women in Science and Engineering Graduate Mentor**
Biology Department, Duke University

2015-16 **Graduate Student Mentor**
California Teach Program, UCLA

PROFESSIONAL SERVICE AND SOCIETIES

DUKE BIOLOGY DEPARTMENT

2016-21 **IDEA (Inclusion, Diversity, Equity, & Anti-Racism) Committee**

Biology Department, Duke University
Worked collaboratively with fellow graduate students on diversity, inclusion, and equity initiatives, including: hosting workshops, writing teaching recommendations for TAs and faculty, promoting diversity and inclusion resources for students, and gathering feedback on department culture. Led work on the following initiatives:

- Mental Health Webpage (https://sites.duke.edu/biodiversity_mindhealth/)
- Anti-Racism Discussion Groups (monthly)
- Safe spaces meetup groups (monthly)
- Hosting the IDEA Book Club (multiple times a semester)

2020-21 **Graduate Student Representative** on the faculty **Action for Justice, Equity, and Diversity (AJED) Committee**
Biology Department, Duke University

2019-20 **Graduate Student Representative** on the faculty **Task Force on Graduate Admissions and Recruitment**
Biology Department, Duke University

2016-Present **Dive Control Board**
AAUS Scientific Diving Program, Duke University

PROFESSIONAL SOCIETIES
Society for Integrative and Comparative Biology
International Society for Neuroethology
Animal Behavior Society
Sigma Xi

REVIEWER FOR: iScience

OUTREACH AND SCIENCE COMMUNICATION

2025 **Scientific Advisor, *Submerged! In the Company of Fish*, Voyages: Chapter 7**
Submersive Productions and the National Aquarium, Baltimore, MD

2021-24 **Presenter, Annual Alumni STEM Speaker Series**
Baltimore City College High School, Baltimore, MD

2022 **Visiting Expert**
Sea & Learn Foundation, Saba, Dutch Caribbean

2022 **Public Seminar:** *Sea and Be Seen: Visual Ecology in the Depths*
Durham County Library, Durham, NC

2018-19 **Exhibiting Scientist**
Art of a Scientist, Duke University

2016-17 **Educator Outreach Liaison**
Scientific Research and Education Network (SciREN) Triangle, Durham, NC

2015-16 **Graduate School Info Session Panel Member**
Diversity Project, Department of Ecology and Evolutionary Biology, UCLA

2015-16 **Career Day Presenter**
Los Angeles Academy Middle School, South Los Angeles, CA

2015-16 **Scientist Pen Pal**
Letters to a Pre-Scientist Pen Pal Program

2016 **Scientist in the Classroom Presenter**
Oak Park High School, Oak Park, CA

SKILLS AND CERTIFICATIONS

Diving and First Aid: AAUS Scientific Diver (30' depth rating, >70 logged dives, wetsuit & drysuit experience), PADI Advanced Open Water, PADI Nitrox, DAN DFA Pro, Experienced freediver
Programming Languages: R, bash, Python
Animal Behavior and Tracking Software: BORIS, Tracker
Image Processing and Design: FIJI/ImageJ, Adobe Suite (Illustrator, Photoshop, After Effects)
Statistics: Parametric and Non-parametric analyses incorporating bootstrapping methods