**­Name: Julia C. Notar**

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**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**2022-23 **Research Associate**  
 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**, 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](https://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](https://doi.org/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](https://doi.org/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](https://doi.org/10.3160/0038-3872-108.2.89)

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](https://doi.org/10.6084/m9.figshare.13360559)

Sosa, K*,* **Notar, JC**, andEily, A*.* (2020)*.* Fostering open dialogue in the classroom. *figshare*. Online resource. *doi:* [10.6084/m9.figshare.13360547](https://doi.org/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](https://doi.org/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](https://doi.org/10.6084/m9.figshare.13003163)

**Grants and Fellowships**  
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  
2022 **Graduate Student Travel Award** ($300), Animal Behavior Society  
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)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, andJohnsen, 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)  
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 brevispinumGo, 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 **Teaching Associate1,2, Teaching Assistant1,3**  
Department of Ecology and Evolutionary Biology, UCLA1  
Department of Integrative Biology and Physiology, UCLA2Biology Department, Duke University3

Courses: Animal Environmental Physiology1, Advanced Experimental Statistics2, Biology of Invertebrates1, Biology of Marine Tetrapods1, Biology of Vertebrates1, Experimental Marine Invertebrate Biology1, Field Marine Ecology1, Genetics & Evolution3, Introduction to Ecology & Behavior1, Living Ocean1

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**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

**Service (Selected)**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

**Outreach and Science Communication**2023 **Speaker, 4th 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

2021 **Speaker, 2nd Annual** **Alumni STEM Speaker Series**

Baltimore City College High School, Baltimore, MD

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), PADI Advanced Open Water, PADI Nitrox, DAN CPR/First Aid/O2 (lapsed), Wilderness First Aid Responder (lapsed in 2020)  
Programming Languages: R, bash, Python  
Animal Behavior and Tracking Software: BORIS   
Image Processing and Design: FIJI/ImageJ, Adobe Suite (Illustrator, Photoshop, After Effects) Statistics: Parametric and Non-parametric analyses incorporating bootstrapping methods

**Professional Societies**  
Society for Integrative and Comparative Biology (SICB)  
Animal Behavior Society (ABS)   
Sigma Xi