

Jesse N. Granger, Ph.D.

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[Research Gate Profile](#) | [Google Scholar Profile](#) | [Website](#)

PROFESSIONAL APPOINTMENTS

Postdoctoral Researcher , Lund University, Sweden <i>Carl Tryggers Fellow</i> <i>Co-PI: Eric Warrant</i>	2025 - Present
Postdoctoral Researcher , Max Planck Institute of Animal Behavior in the Department of Collective Behavior / University of Konstanz, Germany <i>Zukunftskolleg Fellow</i> <i>Co-PI: Iain Couzin</i>	2025 - Present
Postdoctoral Associate , Duke University <i>AFOSR Fellow</i> <i>PI: Sönke Johnsen</i>	2023 - 2025

EDUCATION

Ph.D. Biology, Minor in Biostatistics , Duke University, <i>NDSEG Fellow</i> <i>PI: Sönke Johnsen</i> <i>Thesis: Behavioral and Geophysical Factors Influencing Success in Long Distance Navigation</i> <i>Committee: H. Frederik Nijhout, Jean Philippe Gibert, Robert Fitak (UCF), Kenneth Lohman (UNC-CH)</i>	2018 - 2023
Certificate in College Teaching , Duke University	2018 - 2023
B.S. Biophysics, Minor in Mathematics , William & Mary, <i>Honors, Summa Cum Laude, Phi Beta Kappa</i>	2014 - 2018

FELLOWSHIPS / ACADEMIC HONORS (*awarded but declined)

Zukunftskolleg Fellowship \$187,800, <i>University of Konstanz</i>	2025
Carl Tryggers Stiftelse Fellowship \$95,000, <i>Lund University</i>	2025
*Alexander von Humboldt Research Fellowship \$64,800, <i>University of Konstanz</i>	2025
*Swedish Foundation for International Cooperation in Research Fellowship \$213,400, <i>Lund University</i>	2025
Seal of Excellence (Marie Skłodowska-Curie Fellowship) <i>European Commission</i>	2024 & 2025
*Bass Instructional Fellowship \$15,000 + 1 Year Tuition, <i>Duke University</i>	2023
Data Expedition \$2,500 (Earned Twice, Total=\$5,000), <i>Duke University</i>	2021 & 2022
International Research Experiences for Students \$5,000 + Travel Expenses, <i>National Science Foundation / Brunei Darussalam</i>	2022
National Defense Science & Engineering Graduate Fellowship \$125,000 + 3 Years Tuition, <i>Department of Defense</i>	2020-2024
*NSF Graduate Research Fellowship \$102,000 + 3 Years Tuition, <i>National Science Foundation</i>	2020
Grant-In-Aid of Research \$1,000, <i>Society for Integrative & Comparative Biology</i>	2020
Teaching Assistant Award—Honorable Mention <i>Duke University</i>	2020
Biology Department Grant-in-Aid \$1,000 (Earned Four Times, Total=\$4,000), <i>Duke University</i>	2019, 2020, 2021 & 2022

Summer Research Fellowship \$5,500, <i>Duke University</i>	2019
Phi Beta Kappa <i>William & Mary</i>	Inducted 2017
Honors Fellowship \$4,000, <i>William & Mary</i>	2017-2018
Dewilde Physics Fellowship \$1,000 <i>William & Mary</i>	2017
Sharpe Scholar Seminar Fellowship \$3,000, <i>William & Mary</i>	2015-2016
Nonfiction Literary Awards—Honorable Mention <i>William & Mary</i>	2016

PEER REVIEWED PUBLICATIONS (**co-first authors, *undergraduate mentee)

- **J. Granger**, M. C. James, E. P. Bond, K. Mitchell, K. Lohmann, S. Johnsen, “Navigational Precision in Leatherbacks: Beyond the Magnetic Map.” (In Review, Major Revisions, [Science](#))
- **J. Granger**, G. Nevitt, S. Johnsen, (2025), “Multi-species sensory networks and social foraging strategies: implications for population decline in procellariiform seabirds.” [Proceedings of the National Academy of Sciences \(PNAS\)](#).
- ****J. Granger**, ***M. Phillips, S. Johnsen, (2024), “Collective movement increases initial accuracy and path efficiency in talitrid amphipod orientation.” [Biology Letters](#). **20**: 20240497
- **J. Granger**, S. Johnsen, (2022), “Collective movement as a solution to noisy navigation and its vulnerability to population loss.” [Proceedings of the Royal Society B](#). **289**: 20221910
- **J. Granger**, S. A. Cummer, S. Johnsen, (2022), “Environmental sources of radio frequency noise: potential impacts on magnetoreception.” [Journal of Comparative Physiology A](#). **208**: 83-95
- B. Taylor, K. Lohmann, L. Havens, C. Lohmann, **J. Granger**, (2021), “Long-distance trans equatorial navigation using sequential measurements of magnetic inclination angle,” [Journal of the Royal Society Interface](#). **18**: 20200887
- **J. Granger**, L. Walkowicz, R. Fitak, S. Johnsen, (2020), “Gray whales strand more often on days with increased levels of atmospheric radio frequency noise,” [Current Biology](#). **30**: R155-R156

OTHER PUBLICATIONS

- **J. Granger**, (2018), “Diatomaceous Solar Cells,” [William & Mary Undergraduate Honors Theses](#). Paper 1215
- **J. Granger**, (2017), “Saving the Monarch or Saving the Village,” [Pulitzer Center on International Crises Reporting](#)
- **J. Granger**, (2017), “Bumping Elbows,” [Virginia Sea Grant](#)
- **J. Granger**, (2016), “Parks on the Rise but the Land is Sinking,” [Virginia Sea Grant](#)
- **J. Granger**, (2016), “Working Today for a Better Tomorrow,” [Virginia Sea Grant](#)

TEACHING EXPERIENCE

Invited Guest Lecturer , Data Science for Biologists <i>Duke University, Biology</i>	Fall 2024
Co-Instructor of Record , Data Science for Biologists <i>Duke University, Biology</i>	Fall 2023
Invited Guest Lecturer , Circular Statistics using R Studio and Isopods <i>Duke University, Biology, Data Expedition</i>	Fall 2022 & Fall 2021
Invited Guest Lecturer , Scaling in R: Isometry vs Allometry <i>Duke University, Biology</i>	Fall 2020
Teaching Assistant , Mammalogy	Spring 2020

Duke University, Biology

Teaching Assistant, Entomology

Fall 2019

Duke University, Biology

Invited Guest Speaker, Terrestrial Electroreception,
Triangle Science Share, Durham NC

Spring 2019

MENTORSHIP EXPERIENCE

Nick Schöffski, Master Student, *U. Konstanz*

2025 - 2026

Magdalena Phillips, Undergraduate, *Duke U.*

2019 - 2024

Thesis: Collective Orientation of Talitrid Amphipods.

High Honors, James B. Rast Award for Research in Comparative Organismal Biology.

Horace Gao, Undergraduate, *Duke U.*

2022-2023

Wyatt Pfau, Undergraduate, *Duke U.*

2022-2023

Sophie Cox, Undergraduate, *Duke U.*

2022

Ashley Huang, Undergraduate, *Duke U.*

2022

Maanvi Chawla, Undergraduate, *Duke U.*

2022

Muaz Kashif, Undergraduate, *Duke U.*

2021-2022

Ruohan (Ada) Zhang, Undergraduate, *Duke U.*

2021-2022

Veda Sanhai, High School Student, *Duke U.*

2020-2021

Nick Kaney, Undergraduate, *Duke U.*

2019

Pranav Charvu, High School Student, *Duke U.*

2019

PROFESSIONAL AND PUBLIC SERVICE

Founder / Organizer—International Seminar on Animal Navigation ([ZooNav](#))

2021-Present

U.B.C.; Duke U.; Florida State U.; U. Konstanz; Lund U.; U.N.C., Chapel Hill;

U. Oldenburg; Texas A&M

Lead Graduate Coordinator—Faculty Hiring Committee, 60+Hrs

2022-2023

Biological Sciences, Duke University

Committee Member—Graduate Admissions & Advisory Committee, 20+Hrs

2022-2023

Biological Sciences, Duke University

Committee Member—Graduate Steering Committee, 20+Hrs

2021-2022

Biological Sciences, Duke University

Lead Coordinator—Graduate Recruitment, 300+Hrs

2019-2023

Biological Sciences, Duke University

Founder & Organizer—Multi-Institutional Seminar Series on Physical Biology

2019-2020

U. of North Carolina at Chapel Hill; Duke University

Group Fitness Instructor—Yoga and Kickboxing

2019-2025

Recreational and Physical Wellness, Duke University

Campus Health and Wellness, William & Mary

2016-2018

PRESENTATIONS (*presented by undergraduate mentee)

- **Conference Talk:** "Collective Navigation in the Australian Bogong Moth," *Royal Institute of Navigation*; Surrey, UK; April 2026
- **Invited Speaker:** "Magnetoreceptive Migrants: Insights from Whales, Turtles, and Moths," *Center for the Advanced Study of Collective Behaviour*; University of Konstanz, Germany; February 2026
- **Invited Speaker:** "Collective Navigation in Magnetoreceptive Migrants," *Zukunftskolleg Jour Fixe*; University of Konstanz, Germany; January 2026
- **Conference Talk:** "Magnetic drift? No problem: migratory leatherback sea turtles have remarkable route fidelity," *Society for Integrative & Comparative Biology*; Portland OR, USA; January 2026

- **Conference Talk:** “Guided by magnets, stars, odors, and friends: how Australian bogong moths find their way,” *Society for Integrative & Comparative Biology*; Portland OR, USA; January 2026
- **Conference Talk:** “Multi-species sensory networks and social foraging strategies: implications for population decline in procellariiform seabirds,” *Society for Integrative & Comparative Biology*; Atlanta GA, USA; January 2025
- **Invited Speaker:** “Behavioral and Geophysical Factors Influencing Success in Long Distance Navigation,” *Max Planck Institute for Animal Behavior, Dept. of Collective Behaviour*; Konstanz, Germany; July 2024
- **Conference Poster:** “Social strategies improve olfactory based foraging in pelagic seabirds: implications for population loss,” *International Congress of Neuroethology*; Berlin, Germany; July 2024
- **Invited Speaker:** “Behavioral and Geophysical Factors Influencing Success in Long Distance Navigation,” *University of Washington, Dpt. of Biology*; Seattle WA, USA; March 2024
- **Conference Talk:** “Nearest Neighbors as a Foraging Cue,” *Society for Integrative & Comparative Biology*; Seattle WA, USA; January 2024
- ***Conference Talk:** “Collective Navigation by Talitrid Amphipods,” Magdalena Phillips et.al, *Society for Integrative & Comparative Biology*; Seattle WA, USA; January 2024
- **Conference Talk:** “Collective Movement as a Solution to Noisy Navigation and its Vulnerability to Population Loss,” *Royal Institute of Navigation*; Surrey, UK; April 2023
- **Conference Talk:** “Collective Movement as a Solution to Noisy Navigation and its Vulnerability to Population Loss,” *Society for Integrative & Comparative Biology*; Austin TX, USA; January 2023
- ***Conference Talk:** “Collective Navigation by Talitrid Amphipods,” Magdalena Phillips et.al, *Society for Integrative & Comparative Biology*; Austin TX, USA; January 2023
- **Conference Poster,** “Collective Movement as a Solution to Noisy Navigation and its Vulnerability to Population Loss,” *Regional Society for Integrative & Comparative Biology*; Duke University, USA; November 2022
- **Workshop Poster:** “Collective Movement as a Solution to Noisy Navigation and its Vulnerability to Population Loss,” *Sensory Ecology Course*; Lund University; September 2022
- **Conference Talk:** “Navigation in a Group,” *Society for Integrative & Comparative Biology*; Phoenix AZ, USA; January 2022
- **Conference Talk:** “Magnetoreception and Radio-Frequency Noise,” *Society for Integrative & Comparative Biology*; Virtual; January 2021
- **Conference Talk:** “Gray Whales Strand More Often on Days with Increased Levels of Atmospheric Radio Frequency Noise,” *Society for Integrative & Comparative Biology*; Austin TX, USA; January 2020

SELECT MEDIA COVERAGE

[Science Friday](#) • [The Atlantic](#) • [National Geographic](#) • [New York Times](#) • Feat. in [An Immense World](#)

PROFESSIONAL REFERENCES

Dr. Sönke Johnsen, Professor, Department of Biology, Duke University

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Dr. Robert Fitak, Assistant Professor, Department of Biology, University of Central Florida

4110 Libra Drive, Orlando, FL 32816 | robert.fitak@ucf.edu | (407) 823-2141

Dr. Paul Magwene, Professor, Department of Biology, Duke University

301 Bio Sci Bldg, Box 90338, Durham, NC 27708 | paul.magwene@duke.edu | (919) 613-8159

Dr. Kenneth Lohmann, Professor, Department of Biology, University of North Carolina at Chapel Hill

Coker Hall CB-3280, Univ. North Carolina, Chapel Hill, NC 27599 | klohmann@email.unc.edu | (919) 843-4508