**Dr. Nicole Bedford, Ph.D.**

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**Website:** thebedfordlab.com

**APPOINTMENTS**

2021 – *Curr.* **Assistant Professor**, Zoology and Physiology Department, University of Wyoming, Laramie WY

2019 – 2021 **Gordon Family Postdoctoral Fellow**, Neurobiology Department, Harvard Medical School, Boston MA

**EDUCATION**

2012 – 2019 **Ph.D., Organismic and Evolutionary Biology**, Harvard University, Cambridge MA

2006 – 2010 **B.Sc. Hon., Marine Biology**, University of British Columbia, Vancouver BC

**PUBLICATIONS**

\*co-first author

1. **Bedford NL**, Pottala T, Sabatini BL. Functional neuroanatomy of a voluntary micturition circuit in mice. *In preparation*.
2. **Bedford NL**\*, Weber JN\*, Tong W, Baier F, Kam A, Greenberg RA, Hoekstra HE (2022). Interspecific variation in cooperative burrowing behavior by *Peromyscus* mice. *Evolution Letters,* 6(4): 330-340.
3. Hu CK, York RA, Metz HC, **Bedford NL**, Fraser HB, Hoekstra HE (2022). Cis-regulatory changes in locomotor genes are associated with the evolution of burrowing behavior. *Cell Reports*, 38(7): 110360.
4. **Bedford NL**, Gable JT, Hu CK, Wooldridge TB, Sokolov NA, Lassance JM, Hoekstra HE (2021). Automated tracking reveals the social networks of beach mice and their burrows. *bioRxiv* 455531 [**Preprint**]. August 7, 2021. Available from: https://doi.org/10.1101/2021.08.07.455531
5. Metz HC\*, **Bedford NL**\*, Pan L, Hoekstra HE (2017). Evolution and genetics of precocious burrowing behavior in *Peromyscus* mice. *Current Biology*, 27(24): 3837-3845.e3.
6. Bay RA, Arnegard ME, Conte GL, Best J, **Bedford NL**, McCann SR, Dubin ME, Chan YF, Jones FC, Kingsley DM, Schluter D, Peichel CL (2017). Genetic coupling of female mate choice with polygenic ecological divergence facilitates stickleback speciation. *Current Biology*, 27(21): 3344-3349.e4
7. **Bedford NL** and Hoekstra HE (2015). The Natural History of Model Organisms: *Peromyscus* mice as a model for studying natural variation. *eLife*, *4*, e06813.
8. Arnegard ME, McGee MD, Matthews B, Marchinko KB, Conte GL, Kabir S, **Bedford N**, Bergek S, Chan YF, Jones FC, Kingsley DM, Peichel, CL Schluter D (2014). Genetics of ecological divergence during speciation. *Nature*, 511(7509): 307–311.

Commentaries:

Hoekstra, H. and **Bedford, N.** F1000 Prime Recommendation of [Ellegren, H. *et al*., Nature 2012, 491(7426): 756-60]. In F1000 Prime, 23 May 2013. doi:10.3410/f.717961567.793476298

**AWARDS & RECOGNITIONS**

2023 Faculty Research Grant, WY NASA Space Grant Consortium

2023 **Own It! Women in STEM Award, University of Wyoming**

2022 – 2024 WY INBRE Thematic Research Award

2022 WY COBRE 10X Genomics Grant

2021 WY INBRE Equipment Supplement Grant

2021 William Randolph Hearst Fellowship, Harvard Medical School

2019 – 2021 Gordon Family Fellowship in Neurobiology, Harvard Medical School

2017 SMBE Young Investigator Travel Award

2016 RCN Sociogenomics Laboratory Exchange Award

2016 Museum of Comparative Zoology Putnam Expedition Grant, Harvard University

2015 – 2019 (4X) Distinction in Teaching Award, Derek Bok Center for Teaching and Learning, Harvard University

2015 Grant-In-Aid of Research, American Society of Mammalogists

2014 Mind, Brain, and Behavior Grant, Harvard University

2014 Robert A. Chapman Memorial Scholarship, Harvard University

2013 Summer Institute in Statistical Genetics Scholarship, University of Washington

2013 – 2015 (2X) Museum of Comparative Zoology Putnam Expedition Grant, Harvard University

2012 – 2015 James Mills Pierce Fellowship, Harvard University

2012 – 2015 NSERC Postgraduate Scholarship – Doctoral

2008 – 2009 (2X) NSERC Undergraduate Student Research Award

2008 Mary and Joseph Bryant Scholarship, University of British Columbia

2007 Western Canadian Universities Marine Sciences Society Scholarship

2006 University of British Columbia President’s Entrance Scholarship

2006 Louise McKinney Scholarship, Mount Royal College

2005 Mount Royal College Entrance Scholarship

**MENTORSHIP**

2022 – *Curr.* Kaylin Hoglin (Undergraduate ’23), University of Wyoming

2022 – *Curr.* Ryan Pitesky (Undergraduate ’24), University of Wyoming, INBRE Research Intern

2022 – *Curr.* McKinzie Wade (Undergraduate ’23), University of Wyoming, INBRE Research Intern, Honors Capstone

2022 – *Curr.* Rachel Fanelli (Research Technician), Bedford Lab, University of Wyoming

2022 – 2022 Priyansha Srivastava (Rotation Student), Bedford Lab, University of Wyoming

2022 – 2023Albert Allotey (Rotation Student), Bedford Lab, University of Wyoming

2020 – 2021 Trent Pottala (Research Technician), Sabatini Lab, Harvard Medical School

2016 – 2018 Nina Sokolov (Research Technician), Hoekstra Lab, Harvard University

2015 – 2018 Rebecca Greenberg (Undergraduate ’18), Harvard College, Senior Thesis

2014 – 2016 Ariana Kam (Undergraduate ’16), Harvard College, Senior Thesis

2014 – 2015 Nadine Shen Molesky (Undergraduate ’17), Tufts University, Independent Research Project

2013 – 2014 Srishti Prabha (Undergraduate ’15), Northeastern University, Co-op Student

2013 – 2014 Imtiyaz Hossein (Undergraduate ’17), Cambridge Rindge & Latin School and Tufts University

**SCIENCE WORKSHOPS**

2023 NSF NEON RCN Workshop, Archbold Biological Station, Venus FL

2017 Junior Scientist Workshop on Neural Circuits and Behavior, Janelia Farm, Ashburn VA

2016 Neural Systems & Behavior Course, Marine Biological Laboratories, Woods Hole MA

2014 Summer Institute in Statistical Genetics, University of Washington, Seattle WA

2007 Fall Program, Bamfield Marine Sciences Centre, Bamfield BC

**TEACHING & OUTREACH WORKSHOPS**

2022 University of Wyoming Team Based Learning Workshop, Laramie WY

2022 University of Wyoming Cooperative Learning Workshop, Laramie WY

2022 University of Wyoming Assessment Academy, ECTL, Laramie WY

2021 Animal Behavior Society Education Committee Mid-Year Workshop

2021 The Inclusive STEM Teaching Project, edX, Cambridge MA

2018 Society for Women in Marine Science, University of Rhode Island, Narragansett, RI

2018 Diversity in STEM: How to Foster an Inclusive Classroom, Derek Bok Center, Cambridge MA

2018 Identity & Power Dynamics in the Classroom, Derek Bok Center, Cambridge MA

2017 Fletcher Arctic VI: Exploring Paths to Sustainable Development in the Arctic, Medford MA

2015 Pedagogical Graphics and Animation Workshop, Derek Bok Center, Cambridge MA

**SERVICE & OUTREACH**

2022 Poster Session Judge, WWAMI Research Symposium, University of Wyoming

2021 – *Curr.* Zoology and Physiology Assessment Committee, University of Wyoming

2021 Reviewer, Clarke and Tiernan Scholarships, University of Wyoming

2017 – *Curr.* Invited Reviewer, *The American Naturalist, Behavioral Ecology and Sociobiology, eLife, Heredity, Molecular Ecology, The Journal of Neurophysiology, Oikos, Reproduction and Fertility*

2017 – 2018 Poster Session Judge, National Collegiate Research Conference

2017 Science Policy Career Panel Organizer and Moderator, GSAS Science Policy Group

2016 Washington D.C. Trip Organizer, GSAS Science Policy Group

2015 – 2017 Executive Member, Harvard GSAS Science Policy Group

2012 – 2013 Citizen Schools Volunteer Teacher, Boston Public Schools

2008 – 2009 Student Ambassador, Bamfield Marine Sciences Centre

2006 – 2009 Volunteer Public Education Instructor, Vancouver Aquarium

2005 – 2006 Volunteer Conservation Ambassador, Calgary Zoo