

Valentina J. Alaasam, Ph.D.

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EDUCATION / PROFESSIONAL APPOINTMENTS

National Science Foundation Postdoctoral Research Fellow	2024-Current
University of Washington, Seattle, WA, USA Smithsonian Tropical Research Institute, Gamboa, Panama	
Postdoctoral Researcher , Department of Biology, New York University, NY	2023-2024
Ph.D. Ecology Evolution and Conservation Biology , University of Nevada, Reno National Science Foundation Graduate Research Fellow	2022
B.S. Biology, Green Engineering Minor , Virginia Polytechnic Institute and State University	2015

PUBLICATIONS

*Co-first author &Undergraduate student mentee #Graduate student mentee *Senior Author

Peer-reviewed Publications

12. Case BF, Helm RF, Groffen J, Galligan TM, Bodinof Jachowski CM, Halligan JJ, Hildreth SB, [Alaasam VJ](#), Ray WK, and Hopkins WA. **2024**. Endocrinology of extended uniparental paternal care in the Eastern hellbender salamander (*Cryptobranchus a. alleganiensis*). *General and Comparative Endocrinology*. Vol 355(114547). Doi: 10.1016/j.ygcen.2024.114547.
11. Bodinof Jachowski C, [Alaasam VJ](#), Blumenthal A, Davis AK, Hopkins WA. **2024**. The habitat quality paradox: loss of riparian forest cover leads to decreased risk of parasitism and improved body condition in an imperiled amphibian. *Conservation Physiology*. Vol 12 (1) coad101. doi: [10.1093/conphys/coad101](https://doi.org/10.1093/conphys/coad101)
10. [Alaasam VJ](#), Behnke T, Grant A, Ouyang JQ. **2024**. Glucocorticoids and land cover: using meta-analysis to assess a physiological biomarker for avian conservation. *Philosophical Transactions B*. doi: 10.1098/rstb.2022-0508.
9. [Alaasam VJ](#), Hui CK, Lomas J, Won, Ferguson S, Zhang Y, Yim WC, Ouyang JQ. **2024**. What happens when the lights are left on? Transcriptomic and phenotypic habituation to light pollution. *iScience*. 10.1016/j.isci.2024.108864
8. #Hui CK, &Chen N, &Chakraborty A, [Alaasam VJ](#), Pieraut S, Ouyang JQ. **2023**. Dim artificial light at night alters immediate early gene expression throughout the avian brain. *Frontiers in Neuroscience*. Vol. 17. doi: 10.3389/fnins.2023.1194996
7. Galligan TM, Helm RF, Case BF, Bodinof Jachowski CM, Frazier CL, [Alaasam VJ](#), Hopkins WA. **2021**. Pre-breeding androgen and glucocorticoid profiles in the eastern hellbender salamander (*Cryptobranchus alleganiensis alleganiensis*). *General and Comparative Endocrinology*. 313:113899. doi: 10.1016/j.ygcen.2021.113899.
6. Kernbach ME, Miller CR, [Alaasam VJ](#), Ferguson SM, Francis CD. **2021**. Introduction to the Symposium: Effects of Light Pollution Across Diverse Natural Systems. *Integrative and Comparative Biology*. doi: 10.1093/icb/icab157

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5. Alaasam VJ, Kernbach ME, Miller CR, Ferguson SM. **2021**. The Diversity of Photosensitivity and its Implications for Light Pollution. 2021. *Integrative and Comparative Biology*. doi: 10.1093/icb/icab156
4. Alaasam VJ, Ouyang JQ. **2021**. The power of large-scale community science in addressing anthropogenic change. *Global Change Biology*. 27(17). doi: 10.1111/gcb.15741
3. Alaasam VJ, Zhang Y, Niu Y, Ferguson B, Pieraut S, Ouyang JQ. **2021**. Effects of dim artificial light at night on locomotor activity, cardiovascular physiology, and circadian clock genes in a diurnal songbird. *Environmental Pollution*. 282(1):117036. doi: 10.1016/j.envpol.2021.117036
2. Alaasam VJ, Keehn JE, Durso AM, French SS, Feldman CR. **2020**. Ectoparasite Load Is Reduced in Side-Blotched Lizards (*Uta stansburiana*) at Wind Farms: Implications for Oxidative Stress. *Physiological and Biochemical Zoology*. 94(1). doi: 10.1086/712100
1. Alaasam VJ, Duncan R, Casagrande S, Davies S, Seymoure B, Sidher A, Shen Y, Zhang Y, Ouyang JQ. **2018**. Light at Night Disrupts Nocturnal Rest and Elevates Glucocorticoids at Cool Color Temperatures. *Journal of Experimental Zoology Part A*. 2018:1-8. ****Wiley's top 20 most read 2017-2018**

Manuscripts submitted and in preparation

*Alaasam VJ, *Bodinof Jachowski C, Schoenle L, Govenor H, Hope S. Work and Life In Dynamic Equilibrium. *Trends in Ecology and Evolution (in review)*.

Alaasam VJ, Cantarero A, Beccardi M, Corregidor-Castro A, Fuertes- Recuero M, Schiavinato M, Zampa L, Grapputo A, Ouyang JQ, Baldan D. Fitness and physiological consequences of paternal desertion. *Molecular Ecology (in prep)*.

GRANTS, FELLOWSHIPS AND AWARDS

Fellowships Awarded (\$502,000 total)

National Science Foundation Postdoctoral Research Fellowship in Biology (\$240,000)	2023
<i>Award # 2305367: Integrative Research Investigating the Rules of Life Governing Interactions Between Genomes, Environment and Phenotypes</i>	
Smithsonian Tropical Research Institute Genomics Postdoctoral Fellowship (\$130,000) <i>declined</i>	2023
Jenkins Fellowship in Ecology (\$30,000)	2022
National Science Foundation Graduate Research Fellowship (\$102,000)	2019

Research Grants Awarded (\$30,667 total)

Company of Biologists Scientific Meeting Grant - <i>Cities as Natural Experiments: Eco-Evolutionary Responses to Urbanization</i> (\$2,500)	2024
NYU Postdoctoral Research and Professional Development Support Grants (\$2,411)	2023
American Ornithological Society Research Grant (\$1,000)	2021
Company of Biologists Scientific Meeting Grant (\$4,122)	2020
Society for Integrative and Comparative Biology – for SICB Meeting Symposium (\$2,550)	2020
Society for Integrative and Comparative Biology FGST Grant (\$1,800)	2020
Society for the Study of Evolution, Lewontin Early Award (\$2,484)	2019
Graduate Student Association Research Grant, University of Nevada, Reno (\$2,000)	2019
Fralin Life Science Institute Undergraduate Research Fellowship, Virginia Tech (\$4,000)	2014

Academic Awards/Scholarships (\$39,324 total)

NYU Postdoctoral Travel Award (\$1400)	2023,2024
Wilson, Jerry and Betty Scholarship, Department of Biology UNR (\$4,000)	2022
Outstanding Graduate Assistant Researcher (\$1,000)	2022
Outstanding Graduate Student, UNR GSA (\$1,000)	2022
American Ornithological Society Travel Award (\$650)	2022
Society for Integrative and Comparative Biology, Broadening Participation Award (\$500)	2022
Graduate Student Association Travel Awards (\$2,500)	2018-22
Graduate Student Access Grant, University of Nevada, Reno (\$3,000)	2017, 2022
UNR Biology, Diana Hadley-Lynch Scholarship (declined) (\$1,000)	2019
American Ornithological Society Travel Award (\$1,000)	2019
Society for Comparative and Integrative Biology, Broadening Participation Award (\$500)	2018
Nevada Women's Fund Scholarship (\$3,706)	2018
Ben and Beatrice Edwards, Biology Department Scholarship, UNR (\$2,000)	2018
First place, 3-Minute Thesis, UNR (\$1,300)	2018
Graduate Dean's Merit Scholarship, UNR (\$5,000)	2017
Leonard and Melva Harris Scholarship (\$2,228)	2014
Joe and Barbara Cowles Scholarship (\$1,095)	2014
Multicultural Academic Opportunities Scholarship, Virginia Tech (\$5,545)	2012-15
William O. Ross Scholarship (\$1,900)	2011

PRESENTATIONS**Invited seminars and talks**

- 2024 **Binghamton University**, Seminar. Ecology and Evolution. Binghamton, NY, USA.
University of Pittsburgh, Seminar. Department of Biology. Pittsburgh, PA, USA.
University of Massachusetts, Amherst, Seminar. Department of Biology, Amherst, MA, USA
Animal Behavior Society, Symposium: *Increasing the visibility of LGBTQ+ scientists and building a queer-friendly community in the Animal Behavior Society*. London, Ontario.
- 2023 **University of Puerto Rico, Mayagüez**. Lecture, Ornithology Course. Mayagüez, Puerto Rico.
- 2022 **Kennesaw State University**, Seminar. Ecology, Evolution, Behavior and Organismal Biology, Kennesaw, GA.
Virginia Tech University, Seminar. Department of Fish and Wildlife Conservation. Blacksburg, VA, USA.
- 2019 **American Ornithological Society**. Symposium: *A bright future for birds: understanding the impacts of light pollution on avian wildlife*. Anchorage AK.

Selected Contributed Presentations at Scientific Meetings (o – oral, p – poster)

- ^{sp}Alaasam VJ, Baez-Segui RE, Ruida Moreno G, Lin E, Winchell K. (2024). "Luxury effects in NYC: Socioeconomic effects on biodiversity across taxa". Society for Integrative and Comparative Biology.
- ^oAlaasam, VJ. "Blinded by the light...ning talk: effects of light pollution on avian behavior, physiology, and circadian rhythms". American Ornithological Society and Birds Caribbean joint conference. June 2022.
- ^oAlaasam VJ, Zhang Y, Habibian J, Ferguson B, Ouyang JQ. "Effects of dim artificial light at night on locomotor activity, cardiovascular physiology, and circadian clock genes in a diurnal songbird." Society for Comparative and Integrative Biology Conference, Phenonix, AZ. January 2022. Oral Presentation

^oAlaasam VJ, Keehn JE, Durso AM, French SS, Feldman CR. "Gone with the wind: Ectoparasites and oxidative stress in side-blotched lizards at wind farms." Society for Comparative and Integrative Biology Conference, Austin TX. January 2020. Poster Presentation.

^oAlaasam VJ, Zhang Y, Niu Y, Ferguson B, Pieraut S, Ouyang JQ. "Behavioral, physiological, and molecular responses to artificial light at night."

- American Ornithological Society Conference, Anchorage AK. June 2019. Oral Presentation.
- National Institutes for Health IDeA Conference, Las Vegas NV. October 2019. Poster Presentation.

^oAlaasam VJ, Niu Y, Zhang Y, Seymoure B, Ouyang JQ. "Not So Cool: Impacts of night light at cool color temperatures on behavior, physiology, and circadian regulation in zebra finches."

- Society for Comparative and Integrative Biology Conference, Tampa FL. January 2019. Oral Presentation
- OSA Vision Conference, University of Nevada, Reno. September 2018. Poster Presentation.

^oAlaasam VJ, Jachowski CMB, Moore IT, Hopkins WA. Morphology and physiology of brooding and non-brooding male hellbenders (*Cryptobranchus alleganiensis*). Undergraduate Research Symposium 2014, Virginia Polytechnic Institute and State University, Blacksburg, Virginia. July 2014. Poster and oral presentation.

TEACHING

Principles of Biological investigation 2017 - 18

Teaching Assistantship, University of Nevada, Reno NV

Prepared weekly lectures and instruct introductory biology laboratory for 40 undergraduate students per semester. Learning outcomes include formulating scientific hypotheses and testing predictions, experimental design, data collection, statistical analyses, scientific writing, basic lab techniques (micro pipetting, spectrophotometer, PCR, gel electrophoresis, microscopy, DNA extraction).

First Year Experience I: Science and Mathematics 2017

Teaching Assistantship, University of Nevada, Reno NV

Advised 11 undergraduate leaders who interacted in small groups with first-year STEM students. Organized online quizzes and course materials. Learning outcomes include preparing students for successful academic careers in STEM, introductions to research, poster presentation preparation, collaboration, etc.

Biology Help Center 2017

Teaching Assistantship, University of Nevada, Reno NV

Recruited, coordinated, and supervised 16 undergraduate tutors in a wide range of undergraduate biology courses. Managed resources for the biology tutoring center.

Education Chair, The Wildlife Society at Virginia Tech, 2014-15
Organized and led education events within the community

Coalition for Refugee Resettlement, Volunteer, Blacksburg, VA, 2014-15
Taught ESOL, basic speaking and literacy skills to relocated adults and children

Virginia Tech Student Success Center, Tutor, Blacksburg, VA 2012-13
Tutored undergraduate students in introductory chemistry and biology courses.

MENTORSHIP

Graduate Students

Rafael E. Baez-Segui – M.S. student, New York University (2023-present)

Olivia Weklar – Ph.D. student, New York University (2023-present)

Fallon Meng – Ph.D. candidate, New York University (2023-present)

Saimara Alejandro – University of Puerto Rico, Mayagüez, State University of New York, Buffalo (2023-present)

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Undergraduate Students

Tamia Tabourn - NSF REU Summer Undergraduate Research Program (SURP): New York University (2024-present)
 Thesis: "Exploring sexual dimorphism and androchrome morphism in Puerto Rican hummingbirds".

Gaia Rueda Moreno— Undergraduate Research, New York University (2023-2024)
**Dean's Undergraduate Research Funds Recipient (\$1200)*

Emerald Lin – Undergraduate Research, New York University (2023-2024)
**Dean's Undergraduate Research Funds Recipient (\$1200)*

Arunima Chakraborty – Undergraduate Research: University of Nevada, Reno (2021-2022)
**American Microscopical Society Best Poster Award, SICB 2022*
**NSF EPSCOR Undergraduate Research Opportunities Program (\$4,000)*
**Nevada Undergraduate Research Award, University of Nevada, Reno (\$1,800)*

Kelsey Kjer – Honors Thesis: University of Nevada, Reno. (2019-2020)
 Thesis: "Effects of Artificial Light at Night on Zebra Finch Nocturnal Behavior"

Makenna Buckmeyer – Undergraduate Research (2018-2019)

Kira Moore – Undergraduate Research (2018-2019)

Ryan Fung – Undergraduate Research (2018-2019)

OUTREACH

Radio and podcasts

- WYNC News and NPR Morning Edition. July 20, 2024. <https://gothamist.com/news/are-parks-in-nycs-wealthier-areas-more-biodiverse-nyu-researchers-want-to-find-out>
- Borrows of NYC: Comedy and trivia loosely inspired by urban wildlife. May 16, 2024. New York, NY, USA
Live performance <https://open.spotify.com/episode/4jXGzACTpnUDfxk8W54LID?si=986bc37ee4274299>
- Nerd Nite Reno. "Getting Nerdy About Light Pollution". July 2020. *Podcast*
<https://open.spotify.com/episode/3KQRv1Np7VInFDItRYNgfT?si=da6q9QWZS628t4DprPN5ag>

Invited public talks and webinars

- Soapbox Science, New York, NY. August 23, 2024. *Live Talk*.
- Borrows of NYC: Comedy and trivia loosely inspired by urban wildlife. May 16, 2024. New York, NY, USA.
Podcast. <https://open.spotify.com/episode/4jXGzACTpnUDfxk8W54LID?si=986bc37ee4274299>
- Smithsonian National Museum of Natural History. April 12, 2023. *Live Webinar*.
<https://naturalhistory.si.edu/events/events-adults/video-webinars-outbreak-epidemics-connected-world/lights-out-effects-light-pollution-bird-health>
- Science in the wild: Patagonia and Friends of Nevada Wilderness. March 9, 2023. *Live Talk*. Reno, NV, USA.
- Lahontan Audubon Society. March 28, 2023. Reno, NV, USA. *Live Talk*.
- Altacal Audubon Society. February 20, 2023. *Live Virtual Talk*.
- San Francisco Bay Bird Observatory: Birdy Hour. May 16, 2022. *Live Virtual Talk*. San Francisco, CA, USA.
<https://www.youtube.com/watch?v=XD5D8KV5ijU>
- 3-minute thesis competition. *Live Talk*. 2018
 - University of Nevada, Reno, USA. ***First place**
 - University of Arizona, Phoenix, AZ, USA. Regional Competition,
- Earth Day and Light Pollution – Air and Space Live Chat. Smithsonian National Air and Space Museum.
 May 4, 2021. <https://www.youtube.com/watch?v=C4Ox5N8kOMk>

Featured press and science media

- Misdary, R. "Are parks in NYC's wealthier areas more biodiverse? NYU researchers want to find out." **The Gothamist**. July 20, 2024. <https://gothamist.com/news/are-parks-in-nycs-wealthier-areas-more-biodiverse-nyu-researchers-want-to-find-out>
- Sargent, A. "The Ties Between Wealth and Wildlife in NYC: An Interview with Dr. Valentina Alaasam". **Integrative and Comparative Biology Blog**. July 2, 2024. <https://integrativeandcomparativebiology.wordpress.com/2024/07/02/the-ties-between-wealth-and-wildlife-in-nyc-an-interview-with-dr-valentina-alaasam/>
- Reynolds E. "What To Know about the 2024 Total Eclipse: Tips from NYU experts on eye safety, photography, animal behavior, and more ahead of the sun's big show". **NYU News**. March 29, 2024. <https://www.nyu.edu/about/news-publications/news/2024/march/eclipse-guide-2024.html>
- Rawat, S. "Stress in the city." **The Biologist**. September 11, 2023. <https://thebiologist.rsb.org.uk/biologist-features/stress-in-the-city>
- Ogden LE. "Artificial light at night: A research field in action." **BioScience**. Volume 73, Issue 7, July 2023, Pages 469–475, <https://doi.org/10.1093/biosci/biad058>
- Gibbons, S. "Want to help wildlife? Turn off your lights." **National Geographic**. April 3, 2023. <https://www.nationalgeographic.com/environment/article/light-pollution-how-to-help-wildlife>
- Hirschlag A. "How light pollution disrupts plants' senses." **BBC Future**. March 8, 2023. <https://www.bbc.com/future/article/20230308-how-light-pollution-disrupts-plants-senses>
- Johnson K. "Urban Wildlife: How noise and light pollution affect birds". **The Hitchcock Project for Visualizing Science**. December 20, 2020. <https://hitchcockproject.org/research-on-bird-stress-responses/>

Events and other outreach

- Biodiversity survey & STEM careers presentation with BioBus Junior Scientists, New York, NY 2024
- TRiO and McNair first-Gen student panel for high school students, Reno, NV 2022
- Natural History Museum, University of Nevada, Reno (multiple annual events) 2017-22
 - Girl Scouts, Day at the Museum, Big Brothers Big Sisters
- Volunteer, Northern Nevada Resettlement and Placement Program, Reno, NV 2018-19
- Volunteer, Coalition for Refugee Resettlement, Blacksburg, VA 2014-15

PROFESSIONAL SERVICE

DEI Activities and Actions

- **Founding member**, Charlas de Biologías. (2023-2024). Weekly Spanish language networking and language practice for students, postdocs, and faculty in biology. New York University, New York, NY.
- **Founding member**, EECB Justice, Equity, Diversity and Inclusion Committee, University of Nevada, Reno (2020-2023)
- Participant, Equity Informed Mentoring Workshop, New York University (2024)
- Broadening Participation Mentor, Society for Integrative and Comparative Biology (2020, 2022-2024)
- Diversity, equity, and inclusion in STEM, special topics course, University of Nevada, Reno (2020-2021)

Organized Symposia, Workshops, and Working Groups

- **Symposium**: *Cities as a natural experiment: how organisms are finding different solutions to the same urban problems*. Society for Integrative and Comparative Biology. 2025. Co-organizer.
- NSF GRFP Bootcamp – 6-week preparation for rising undergraduate seniors and first-year graduate students. New York University, Department of Biology (2024)
- **Symposium**: *Blinded by the light: Effects of Light Pollution Across Diverse Natural Systems*. Society for Integrative and Comparative Biology. 2021. Co-organizer.

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- Beerhavior, University of Nevada, Reno. (2018-2021). Monthly cross-departmental networking meetups for students, postdocs, and faculty in Animal Behavior

Professional Service

- **Board of Directors**, BirdNote Radio 2023 -*Current*
- Member, Green Leadership Trust 2023 - *Current*
- Session chair, Society for Integrative and Comparative Biology 2017-24
- Session chair, American Ornithological Society 2023
- **Chair**, Party Planning Committee, University of Nevada, Reno 2018-23
- **Education Chair**, Student Chapter of the Wildlife Society 2013-14

Reviewer for

- Frontiers in Ecology and Evolution, Proceedings of the Royal Academy B: Biological Sciences, Environmental Pollution, Ecology and Evolution, Condor (Ornithology), Journal of Experimental Physiology, Biology Letters, Animal Behavior, Journal of Ornithology, Animals, Sustainability.

Memberships

- Society for Integrative and Comparative Biology 2018-Current
- American Ornithological Society 2019-Current
- Brown Girls Climb 2023-Current
- Animal Behavior Society 2024-Current
- Society for the Study of Evolution 2019-21
- AAAS 2019-21

SKILLS / CERTIFICATIONS

- Programming Languages: **R, Python**
- Biological Assays: Enzyme-linked Immunoassay (ELISA), corticosterone, melatonin, oxidative stress.
- DNA extraction and library prep for genetic sequencing
- Project management
- Microscopy and leukocyte Identification (avian, amphibian)
- Mist netting, bird handling, and banding (>10 years)
- Wilderness First Aid (2018), GPS navigation, hiking (> 50lbs), camping, rappelling.