

Bradley C. Allf, PhD

POSTDOCTORAL FELLOW · COLORADO STATE UNIVERSITY

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Education

Ph.D. in Fisheries, Wildlife & Conservation Biology

North Carolina State University (NCSU)

- Advisor: Caren B. Cooper
- Dissertation: *Evaluating the citizen science experience: Motivation, participation and learning*

2023

B.A. in Biology

University of North Carolina, Chapel Hill (UNC)

CREATIVE WRITING MINOR, HIGHEST HONORS

2015

- Advisor: David W. Pfennig
- Honors thesis: *A phylogenetic approach to understanding the evolution of the rattlesnake rattle*

Training

Postdoctoral Fellow in Fish, Wildlife and Conservation Biology

Colorado State University (CSU)

IN LAB OF SARA P. BOMBACI

2025 - present

Postdoctoral Fellow in Applied Ecology

North Carolina State University (NCSU)

IN LAB OF ROBERT R. DUNN

2023 - 2025

Visiting Postdoctoral Researcher in Integrative Biology

Oregon State University (OSU)

IN LAB OF DAVID W. KIKUCHI

2023

Publications

Peer-Reviewed Journal Articles

10. **Allf, B.C.**, Mallavarapu, A., Kikuchi, D.W., Vasudeva, N., Dunn, R.R. (2026). Who Eats Whom? A global food web derived from citizen science. *PLOS Biology*, 24(9). DOI: 10.1371/journal.pbio.3003988
9. **Allf, B.C.**, Bertone, M.A., Nichols, L.M., Gorneau, J.A., Lupoli, R., Schnepf, K.E., Dankowicz, E., Schneider, K.R., Williams, J., Dagley, B., Rosenthal, A., Camilleri, C., Lindsey, M.S., Sikes, D.S., Fuchs, J., Ramseyer, L.J., Collins-Sussman, E., Woo, B., Powers, J.M., Giulian, J., Dennehy, P., Dankowicz, Z.R., Hromadka, J., Scott, C., Rota, J., Davis, D.R., Szucsich, N.U., Monteiro, H., Luk, S.P.L., Dombroskie, J.J., Kays, R., Clawson, M.M., Godwin, R.L., Coin, P., Hauser, M., Wall, M.A., Claridge, B.R., Kleinfelder, S., Pinzon, J., Jones, N.T., Tinker-Tsavalas, A., Phillips, W., Heins, C., Marshall, D.S., Montgomery, G.A., Callaghan, C.T., Tighe, D., Fisher, J.R., Girgente, J., Holms, H., Brown, T., Powell, G.S., Derkarabetian, S., Pereira, T.P.L., Gargan, H., Zhao, J., Taylor, B., Everest, T.A., Anderson, K., Vendetti, J.E., Goforth, C., Waters, J.S., Dunn, R.R. (2026). The biodiversity of human dwellings: A dataset of 24,000 observations of indoor life in the United States and Canada. *Ecology* (in print).
8. **Allf, B.C.**, Larson, L.R., Goodwin, J., Dunn, R., Cooper, C.B. (2025). Fun surveys? Developing an innovative approach to assessing learning through citizen science. *Citizen Science: Theory and Practice*, 10(1). DOI: 10.5334/cstp.796
7. **Allf, B.C.**, Larson, L.R. (2025). The role of intrinsic motivation in sustaining citizen science participation among diverse participants in a corporate volunteer program. *PLOS ONE*, 20(9). DOI: 10.1371/journal.pone.0331221
6. Futch, S.E., Larson, L.R., Cooper, C.B., Cutts, B.B., **Allf, B.C.**, Sharova, M.V., Cavalier, D., Davis, C. (2024). Exploring project connections across the citizen science landscape: A social network analysis of shared volunteers. *Sage Open*, 14(4). DOI: 10.1177/21582440241298424
5. Taylor, B.W., **Allf, B.C.**, Hopkins, S.R., Irwin, R.E., Jewell, M., Nevo, O., Nichols, L.M., Rodriguez Valeron, N., Evans, J.D., Sorensen, P.M., Dunn, R.R. (2023). Nature's chefs: Uniting the hidden diversity of food making and preparing species across the tree of life. *BioScience*, 73(6), 408-421. DOI: 10.1093/biosci/biad026

4. **Allf, B.C.**, Cooper, C. B., Larson, L. R., Dunn, R. R., Futch, S. E., Sharova, M.V., Cavalier, D. (2022). Citizen science as an ecosystem of engagement: Implications for learning and broadening participation. *BioScience*, 72(7), 651-663. DOI: 10.1093/biosci/biac035
3. **Allf, B.C.**, Sparkman, A. M., Pfennig, D. W. (2021). Microevolutionary change in mimicry? Potential erosion of rattling behaviour among nonvenomous snakes on islands lacking rattlesnakes. *Ethology Ecology & Evolution*, 33(2), 125-136. DOI: 10.1080/03949370.2020.1837962
2. Smith, H., **Allf, B.C.**, Larson, L.R., Futch, S.E., Lundgren, L., Pacifici, L., Cooper, C.B. (2021). Leveraging citizen science in a college classroom to build interest and efficacy for science and the environment. *Citizen Science: Theory and Practice*, 6(1). DOI: 10.5334/cstp.434
1. **Allf, B.C.**, Durst, P. A., Pfennig, D. W. (2016). Behavioral plasticity and the origins of novelty: The evolution of the rattlesnake rattle. *The American Naturalist*, 188(4), 475-483. DOI: 10.1086/688017

Book Chapters

2. Mallavarapu, A., Uzzo, S., Vasudeva, N., Dunn, R.R., **Allf, B.C.** (2026). Who eats whom: modeling trophic interaction networks with large-scale, crowdsourced ecological data. In: *Proceedings of the Fourteenth International Conference on Complex Networks and their Applications*. Edited by Cherifi, H., Rocha, L.M., Cherifi, C. and Ertem, M.Z. Springer Nature Switzerland.
1. **Allf, B.C.**, Perkins, D., Bai, J., Cooper, C.B. (2025). Participatory science in the field of ornithology. In: *New Perspectives in Ornithology: 21st Century Dispatches across the World of Birds*. Edited by Edwards, S.V. and Reed, J.M. Oxford University Press. DOI: 10.1093/oso/9780197787670.003.0019

Commentary

1. Henderson, A.F., Alex, B., **Allf, B.C.**, Lin, B., Wu, A., Dames, P., Tu, L., Zarei, K., Martinez, C., Duong, Y. (2026). Summer Reading 2026. *Science*, 392(1118-1124). DOI: 10.1126/science.aei7768

Articles in Review

1. Kadiyala, M., Gowda, B., **Allf, B.C.**, Uzzo, S., Mallavarapu, A. When Crowdsourced Ecological Data Meets Young Visitors: Design-Induced Misconceptions in an Age-Differentiated Ecological Game (in review at *ACM Conference on Human Factors in Computing Systems*).

Selected Other Publications (Not Peer-Reviewed)

- Allf, B.C.** (2025). Stand up for science: In defense of curiosity. *Westword*. [Link](#).
- Allf, B.C.** (2025). By a lake. In: *The Nature of Our Times: Poems on America's Lands, Waters, Wildlife, and Other Natural Wonders*. Edited by Igloria, L.A., Cassinotto, A., Hassler, D. Paloma Press. [Link](#).
- Allf, B.C.** (2023). Two by two degrees. In: *Dear Human at the Edge of Time: Poems on Climate Change in the United States*. Edited by Igloria, L.A., Cassinotto, A., Hoffman, J.S. Paloma Press. [Link](#).
- Allf, B.C.**, Cooper, C.B. (2022). Citizen science volunteers are almost entirely white. *The Conversation*. [Link](#).
- Allf, B.C.** (2022). Making your science writing sing: craft lessons from poetry. *The Open Notebook*. [Link](#).
- Allf, B.C.** (2021). Citizen science is changing people's lives – this project explores how it happens. *Discover Magazine*. [Link](#).
- Allf, B.C.** (2021). Texas Nature Trackers program taps amateur observers to help scientists catalogue wildlife. *Austin American-Statesman*. [Link](#).
- Allf, B.C.** (2021). The future of wilderness. *NC State Applied Ecology News*. [Link](#).
- Allf, B.C.** (2019). Don't trust scientists? Then help collect the data. *Scientific American*. [Link](#).
- Allf, B.C.** (2019). Sound justice: Citizen science, noise and the quest for equity. *Discover Magazine*. [Link](#).
- Allf, B.C.** (2019). Crowd the tap: Empowering communities to examine their lead exposure. *Discover Magazine*. [Link](#).
- Allf, B.C.** (2019). Take pictures of your (six-legged) roommates, for science. *Discover Magazine*. [Link](#).

Allf, B.C. (2017). Can the internet save snakes? *Sierra Magazine*. [Link](#).

Allf, B.C. (2017). Why a local museum keeps burying whales under Raleigh, North Carolina *Atlas Obscura*. [Link](#).

Fellowships & Awards

FELLOWSHIPS

2021	\$7,000 , Mass Media Fellowship (MMF)	AAAS
2020	\$138,000 , Graduate Research Fellowship (GRFP)	NSF

GRANTS

2026	\$600 , Annual Meeting Registration Grant	Ecological Society of America
2026	\$3,000 , Research Award	Urban Wildlife Information Network
2026	\$3,000 , Lois Webster Fund	Denver Audubon
2026	\$5,000 , University Interdisciplinary Programs Mini-Grant	NCSU
2025	\$100 , Ramfunder Cohort Funding	CSU
2023	\$300 , Diversity, Equity and Inclusivity Spotlight Fellowship	NCSU
2022	\$500 , Namkoong Family Graduate Fellowship	NCSU
2019	\$1,000 , Conference Travel Grant	National Association of Science Writers
2015	\$3,500 , Suzanne Bolch Travel Writing Fellowship	UNC

HONORS AND AWARDS

2020	Facilitator Award , STEM for All Video Showcase	NSF
2018	1st Place , Research Video Contest	Society for Neuroscience

Selected Relevant Experience

Concrete Chorus 🐦

2025 – current

RESEARCH LEAD AND VOLUNTEER COORDINATOR

- Lead a multi-city acoustic survey of urban birds in several US cities involving dozens of volunteers.

Bird Snacks

2025 – current

MANAGER

- Facilitate an image classification project on Zooniverse where undergraduate volunteers add feeding-related metadata tags to images of bird feeding interactions

Who Eats Whom 🐦

2018 – current

FOUNDER

- Launched a web app for collecting observations of animals feeding, derived from thousands of citizen science photos, and visualizing these interactions in an interactive global food web

Science Writer 🐦

2017 – current

FREELANCE

- Occasional contributing writer for *Sierra*, *Scientific American*, *Discover*, *Smithsonian*, *Undark*, and many other publications

Never Home Alone 🐦

2023 – 2025

MANAGER AND LEAD ANALYST

- Inventoried global indoor biodiversity via an iNaturalist project involving thousands of contributors and dozens of taxonomic reviewers

North Carolina Museum of Natural Sciences

2015 – 2017

EDUCATIONAL EVENTS SPECIALIST

- Led floor education programming for science events attended by tens of thousands of people at one of the largest natural history museums in the southeast US
- Coordinated the use of the museum's education collection for floor programming, school outreach, and special events

Teaching and Mentorship

COURSES TAUGHT

2026	ECOL 592: Citizen Science and Ecological Research , Weekly seminar course, developed independently	CSU
2026	ECOL 592: Indoor Ecology , Weekly seminar course, developed independently	CSU

TEACHER TRAINING

2024	Reflective Educational Design Certification , Semester-long, asynchronous training in Universal Course Design	NCSU
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MENTORSHIP

2025 – current	Committee member for Elena Gasiorowski , PhD student in the Department of Integrative Biology	OSU
2025 – current	Co-mentor for Veil Camacho , undergraduate student pursuing independent research on bioacoustic monitoring as part of the McNair Scholars program	CSU
2025 – 2026	Mentor for Lauren Smith , undergraduate student conducting a systematic review of snake abundance data to better understand spatial bias in citizen science	OSU
2022	Research mentor for Ariana Lurie , undergraduate student enrolled in research credits to study the growth in ornithological citizen science over time	NCSU
2020	Research mentor for Environmental Studies Capstone Cohort , a group of NC State Seniors studying the diversity of citizen science projects	NCSU

Presentations

Invited Talks

19. **Allf, B.C.**, Camacho, V. Measuring urban Bird Biodiversity with acoustic recordings. *Colorado Field Ornithologists Annual Convention*. May 30, 2026 [presentation co-led with undergraduate mentee].
18. **Allf, B.C.**, Lambert, P.J., Hassler, D., Zhu, J., Bradfield, E., Sheffield, D., Cassinotto, A., Silva, D.S., Solfrian, J., Perez, E.A., Igloria, L.A., Kizhnerman, N. By a Lake. *The Poets Corner: Readings from The Nature of our Times Anthology*. April 12, 2026 [virtual roundtable]. [Link](#).
17. **Allf, B.C.**. The Amateur Tradition: A Citizen Science Primer for Wildlife Biologists. *Colorado State University, Fish, Wildlife, and Conservation Biology Graduate/Faculty Seminar*. November 14, 2025. Fort Collins, CO. [Link](#).
16. **Allf, B.C.** The Impact of the Russian Invasion on Ukrainian Citizen Science [Вплив російського вторгнення на українську громадянську науку]. *Citizen Science in Times of War: Natural Heritage Conservation for LIFE in Ukraine Webinar Series*. May 8, 2025 [virtual].
15. **Allf, B.C.** In defense of curiosity. *Stand up for Science rally*. March 9, 2025. Denver, CO.
14. **Allf, B.C.** Never home alone? An exploration of indoor ecology in North America. *University of Colorado at Boulder, Ecology & Evolutionary Biology Lunch and Learn Seminar*. December 11, 2024. Boulder, CO.
13. **Allf, B.C.** House ecology: a field guide to the great indoors. *University of Colorado at Boulder, Mountain Research Station Seminar*. June 19, 2024. Nederland, CO.
12. **Allf, B.C.**, Cassinotto, A., Pfeiffer, J. Dear human at the edge of time: poetry as a vessel for enriching the climate change dialogue. *University of Nebraska at Lincoln, Communicating Complexity Symposium*. November 16, 2023 [virtual roundtable].
11. **Allf, B.C.** Science writing and science communication. *Level the Playing Field Minority Development Program*. October 27, 2023 [virtual].

10. **Allf, B.C.**, Bohon, W., Brown, M., Davis, D., Gladstone, M., Laungani, R., Prinster, S., Watkins, J. Communicating complexity. *University of Nebraska at Lincoln, Communicating Complexity Symposium*. August 18, 2022 [virtual panel].
9. **Allf, B.C.**, Schmehl, M., Das, M., Hinkle, Duong, Y. Developing science communication during a Ph.D. *ComSciCon-Triangle*. February 12, 2022 [virtual panel].
8. **Allf, B.C.** Science epistemology in the era of “fake” science. *Alpha Epsilon Honor Society Seminar, American Society of Agricultural and Biological Engineers*. September 7, 2021. Raleigh, NC.
7. **Allf, B.C.** How predatory academic journals endanger science. *TEDx NC State*. August 9, 2021. Raleigh, NC. [Link](#).
6. **Allf, B.C.**, Goodwin, J. Public science and science communication for undergraduate science majors. *NC State Biotechnology Sequencing-Based Undergraduate Research Experience Seminar*. July 6, 2021 [virtual seminar].
5. **Allf, B.C.** SciQuest: A citizen science project to track your contributions. *SciStarter.org: Making it Count Vlog Series*. March 29, 2021 [virtual].
4. **Allf, B.C.** Science sonnets: The poetry in good science communication. *Duke University Initiative for Science & Society*. April 15, 2021 [virtual]. [Link](#).
3. **Allf, B.C.** Scaly and slimy adventures from the tiny wild. *Reptile and Amphibian Day, North Carolina Museum of Natural Sciences*. March 9, 2021 [virtual]. [Link](#).
2. **Allf, B.C.** A citizen science primer. *Verizon Inc. Corporate Volunteer Training Program*. April 15, 2020 [virtual].
1. **Allf, B.C.** A phylogenetic approach to understanding the evolution of the rattlesnake rattle. *North Carolina Herpetological Society, Spring Meeting*. March 22, 2016. Wilmington, NC.

Guest Lectures

5. **Allf, B.C.**. Measuring the Predictors of Urban Bird Biodiversity through Participatory Science. *Fish and Wildlife [FW] 468: Bird Ecology and Conservation*. May 26, 2026. Fort Collins, CO.
4. **Allf, B.C.** A primer on citizen science for ecology graduate students. *Applied Ecology [AEC] 502: Introduction to Biological Research*. November 24, 2025. Raleigh, NC.
3. **Allf, B.C.** Public engagement in science for graduate students. *Applied Ecology [AEC] 502: Introduction to Biological Research*. November 11, 2023. Raleigh, NC.
2. **Allf, B.C.** Creative writing for science communicators. *Applied Ecology [AEC] 495/630: Advanced Special Topics in Applied Ecology*. February 14, 2023. Raleigh, NC.
1. **Allf, B.C.**, Goodwin, J. Science communication. *English [ENG] 520: Science Writing for the Media*. October 5, 2020. Raleigh, NC.

Selected Conference Presentations

13. **Allf, B.C.**. Living rooms to war zones: Citizen science in a time of ecological and sociopolitical change. *ESA 2026: The Ecological Society Annual Meeting*. July 26-31, 2026. Salt Lake City, UT.
12. **Allf, B.C.**, Bombaci, S.P. Disentangling the social and environmental drivers of urban bird biodiversity through acoustic monitoring and citizen science. *TWS 2025: The Wildlife Society Annual Meeting*. October 5-8, 2025. Edmonton, Canada.
11. **Allf, B.C.**, Larson, L.R., Cooper, C.B. Corporate citizen scientists more diverse but participation limited by external motivation. *C*Sci 2023: The Citizen Science Association Conference*. May 22-26, 2023 [virtual].
10. **Allf, B.C.**, Cooper, C.B., Larson, L.R., Dunn, R.R., Futch, S.E., Sharova, M.V., Cavalier D. New horizons for citizen science participation: Multiproject volunteers. *C*Sci 2022: The Citizen Science Association Conference*. May 23-26, 2022 [virtual].
9. **Allf, B.C.**, Cooper, C.B., Larson, L.R., Dunn, R.R., Futch, S.E., Sharova, M.V., Cavalier, D. The new citizen scientist: Multi-project participation. *NC State College of Natural Resources Graduate Research Symposium*. Raleigh, NC. March 17, 2021 [virtual].
8. **Allf, B.C.**, Sparkman, A., Pfennig, D.W. Island tails: Is tail vibration rattlesnake mimicry? *SEPARC 2021: Southeast Partners in Amphibian and Reptile Conservation*. February 22-27, 2021 [virtual].

7. **Allf, B.C.**, Cooper, C.B., Larson, L.R., Futch, S.E., Sharova, M.V. SciStarter: The impact of a 3rd party platform on volunteer communities. *Citizen Science in Higher Education Research Symposium*. September 12, 2020 [virtual].
6. **Allf, B.C.**, Cooper, C.B., Larson, L.R., Cavalier, D., Spiers, H., Futch, S.E., Sharova, M.V., Dayan, N., Gal, K. SciStarter: The impact of a 3rd party platform on volunteer communities. *ECSA 2020: European Citizen Science Association Conference*. September 6-11, 2020 [virtual].
5. **Allf, B.C.**, Larson, L.R., Cooper, C.B. The new citizen scientist: Boundless participation, boundless impact? *NC State College of Natural Resources Graduate Research Symposium*. February 26, 2020. Raleigh, NC.
4. **Allf, B.C.**, *Eyman, G., *Beaulieu, M.S., *Dunn, R.R. Never home alone: Studying the life in schools and homes. *Bridging the Gap Conference*. October 22-23, 2019. Raleigh, NC [panelist].
3. **Allf, B.C.**, Larson, L.R., Cooper, C.B. Where do they come from and where do they go? Understanding the citizen scientist more holistically. *NERR 2019: National Environment and Recreation Research Symposium*. April 7-9, 2019. Annapolis, MD.
2. **Allf, B.C.**, Larson, L.R., Cooper, C.B. Towards a more holistic perspective on the citizen science volunteer. *CitSci 2019: Conference of the Citizen Science Association*. March 13-16, 2019. Raleigh, NC.
1. **Allf, B.C.**, Larson, L.R., Cooper, C.B. The modern citizen science volunteer. *NC State College of Natural Resources Graduate Research Symposium*. February 8, 2019. Raleigh, NC.

Service

Bulletin of the Ecological Society of America

2026 - current

POETRY EDITOR

- Review and publish ecology-related creative writing as the first Poetry Editor at ESA Bulletin

Unbound Authors

2025 - current

WRITING INSTRUCTOR

- Lead writing and composition workshops every month in Sterling Correctional Facility, as a volunteer for a prison education initiative

Science Writers Association of the Rocky Mountains

2024 - current

SECRETARY

- Work with the President and other members of the leadership team to coordinate events for our member community of professional science communicators and researchers in the Mountain West

The Nature Record

2024 - current

AUTHOR

- Ongoing contributing author for the chapter "Nature and America's Cultural Heritage," in this national assessment.

Science Communicators of North Carolina

2019 - 2023

BOARD MEMBER

- Coordinated the activities of this non-profit and regional science writing group alongside other board members, including by organizing science communication and education workshops and speaker series

ComSciCon

2020, 2021

CONFERENCE ORGANIZER

- Served multiple years on the national organizing committee of this science communication workshop

Science Storytelling Society

2019 - 2022

CO-CHAIR

- Founded and co-chaired this NC State student group to foster community among graduate and undergraduate students interested in science communication and public engagement in science
- Applied for and received funding from the NC State Public Science Cluster to provide honoraria for invited speakers

In Layman's Terms

2018 - 2020

ASSOCIATE EDITOR

- Reviewed and published creative writing for this science and nature-inspired literary magazine

Peer Review

- Referee for the following journals: *Ecological Applications*, *Biological Conservation*, *Nature Ecology and Evolution*, *PLOS ONE*, *Global Ecology and Conservation*, *Citizen Science: Theory and Practice*, *Ocean and Coastal Management*, *International Journal of Environmental Research and Public Health*
- Referee for the following funding agencies: *US-Israel Binational Science Foundation*

Skills

R	Tidyverse suite (<i>dplyr</i> , <i>ggplot2</i> , etc.; advanced), base R (intermediate), R Markdown (intermediate)
Other Coding	Python (novice), LaTeX (novice), ReactJS (novice)
Software	Qualtrics (advanced), BirdNET Analyzer (advanced), QGIS (intermediate), Adobe CC (intermediate), WordPress (intermediate)
Methods	Spatial analysis, generalized linear modeling, qualitative analysis
Languages	English (native), Spanish (CEFR level B1)
Certifications	NCSU Reflective Educational Design Certificate: Universal Course Design (2024)