

CESAR O. ESTIEN, PHD

Urban Ecologist
Second Nature Ecology + Design
California Academy of Sciences
email: cesar@secondnatureeco.com
website: cesaroestien.com
[Google Scholar](#)

EDUCATION

- PhD **University of California, Berkeley** August 2021 – December 2024
Environmental Science, Policy, & Management
Dissertation: Yesterday's tomorrow: Exploring how societal inequities shape the ecology of cities
Committee: Drs. Christopher J. Schell (Chair), Rachel Morello-Frosch, Justin Brashares, & Alex McInturff
- Post-Baccalaureate, University of Cincinnati** February 2021 – July 2021
Department of Biological Sciences
Project: Playbacks as a Tool for Management and Understanding Relationship Dynamics
Advisor: Dr. Elizabeth A. Hobson
- BS **Florida State University** May 2020
Biological Sciences, Minor: Chemistry
Independent Project: The Influence of Microplastics on Fertilization Success and Sperm Availability in Purple Sea Urchins (*Arbacia punctulata*)
Advisor: Dr. Don R. Levitan

PROFESSIONAL APPOINTMENTS

- Research Associate, California Academy of Sciences** February 2025 – Present
Urban Ecologist, Second Nature Ecology + Design June 2024 – Present
Field Technician, Walters Laboratory, Hastings Natural History Reservation August 2020 – December 2020
Wildlife Intern, Benton Lake National Wildlife Refuge June 2020 – August 2020
Lab Technician, Levitan Laboratory, Florida State University August 2018 – May 2020
Research Technician, Johnson Laboratory, Florida State University September 2019 – December 2019
Field Technician, Dantzer Laboratory, Kluane Red Squirrel Project May 2019 – August 2019
Research Technician, DuVal Laboratory, Florida State University January 2018 – May 2018

AWARDS & HONORS

- Joe McBride Urban Forestry & Ecological Design Scholarship, *UC Berkeley* 2024
Trailblazing Award in Education, *Ecological Society of America Student Section* 2022
Trailblazing Award in Diversity & Inclusion, *Ecological Society of America Student Section* 2021
Ecology and Evolutionary Biology Scholar, *Princeton University* 2020
Charles H. Turner Award, *Animal Behavior Society* 2020
Dean's List, *Florida State University* Fall 2019, Spring 2020

PUBLICATIONS *equal contribution

Published

14. **Estien, CO.** 2025. Queering ecology: (Re)Constructing ecology as a home to better understand the social-ecological pressures of wildlife. *Catalyst: Feminism, Theory, & Technoscience.* ([link](#))
***featured in Sierra Magazine** ([link](#))

13. Rice MM, MD Biaz, SJ Tumbler-Davila, SJ Cheng, K Darragh, **CO Estien**, JW Hammond, D Ignace, L Khadempour, KM Gaynor, KL Mills, JA Smith, AC Moore. 2025. Language matters: Ecology and evolutionary biology terminology disproportionately harms marginalized groups. *Plos One Biology*. ([link](#))
12. Moore, AC, K Calhoun, CE Wilkinson, E Alford, A Ellington, **CO Estien**, GS Fleury, N Garcia, A Hicks, C Mosley, N Vitale-Penniman. 2024. Queer Black Voices in Conservation. *Conservation Biology*. ([link](#))
11. **Estien, CO***, EJ Carlen*, CJ Schell. Examining the influence of sociodemographics, residential segregation, and historical redlining on eBird and iNaturalist data disparities in three US cities. 2024. *Ecology & Society*. ([link](#)) ***Dissertation Chapter**
10. **Estien, CO**, M Fidino, CE Wilkinson, R Morello-Frosch, CJ Schell. Historical redlining is associated with disparities in wildlife biodiversity in four California cities. 2024. *Proceedings of the National Academy of Sciences*. ([link](#)) ***Dissertation Chapter *featured by the Hill ([link](#)), iNaturalist ([link](#)), & more!**
9. Williams, TD, SES Kreling, LA Stanton, CE Wilkinson, **CO Estien**, CJ Schell, EJ Carlen. 2024. Of Rarity and Symbolism: Understanding the Human Social Perceptions of Charismatic Color Morphs. *Human Ecology*. ([link](#))
8. EJ Carlen*, **Estien CO***, T Caspi, DJ Perkins, B Goldstein, SES Kreling, Y Hentati, TD Williams, LA Stanton, S Des Roches, R Johnson, A Young, CB Cooper, CJ Schell. 2024. A framework for contextualizing social-ecological biases in contributory science data. *People & Nature*. ([link](#)) ***2024 Rachel Carson Prize Winner, featured on St. Louis public radio ([link](#))**
7. **Estien, CO**, CE Wilkinson, R Morello-Frosch, CJ Schell. 2024 Historical redlining is associated with disparities in environmental quality across California. *Environmental Science & Technology Letters*. ([link](#)). ***Dissertation Chapter**
6. van der Marel, A, X Francis, CL O'Connell, **CO Estien**, C Carminito, VD Moore, N Lormand, BM Kluever, EA Hobson. 2023. Perturbations highlight importance of social history in parakeet rank dynamics. *Behavioral Ecology*. 34(3), 457-67. ([link](#))
5. Cheng, SJ, KM Gaynor, AC Moore, K Darragh, **CO Estien**, JW Hammond, C Lawrence, KL Mills, MD Biaz, D Ignace, L Khadempour, MA McCary, MM Rice, SJ Tumber-Davila, JA Smith. 2023. Championing Inclusive Terminology in Ecology and Evolution. *Trends in Ecology & Evolution*. 38(5), 381-84. ([link](#))
4. **Estien, CO**, CL O'Connell, X Francis, G Smith-Vidaurre, BM Kluever, EA Hobson, A van der Marel. 2022. Temporary behavioral responses to playbacks by a pest parrot and implications for management. *Animal Behavior & Cognition*. 9(4), 363-384. ([link](#)) ***Post-baccalaureate project**
3. **Estien, CO**, M Chapman, CJ Schell, N Lowy, JR Gerson. 2022. Demystifying the graduate school application process. *Bulletin of the Ecological Society of America*. ([link](#))
2. **Estien, CO**, B Quintana, D Olivares-Zambrano. 2022. Reimagining the Broader Impact Criterion in the NSF Graduate Research Fellowship Program. *Frontiers in Education*. 7: 977836. ([link](#)) ***featured in Inside HigherEd Magazine ([link](#))**
1. **Estien, CO***, EB Myron*, CA Oldfield, A Alwin; Ecological Society of America Student Section. 2021. Virtual Scientific Conferences: Benefits and How to Support Underrepresented Students. *Bulletin of the Ecological Society of America*. ([link](#))

In Press

Spotswood E, S Panlasigui, J Burg, J Symonds, B Herman, R Grossinger, M Bazo, E Beller, M Aronson, I Dronova, H Frumkin, V Jennings, M Kuo, R McDonald, D Miller, A Rigolon, **CO Estien**, JD Brown, K Hachadoorian, J Galarraga, T Jennings, J Weinbaum. Will biodiversity actions yield

healthy places? Exploring the co-benefits and tradeoffs for human health associated with biodiversity-focused urban greening. *People & Nature*.

In Revision

Estien, CO, DL Forrest, GI Gadsden. Human-wildlife Interactions. Forthcoming in 2026 for *The Environmental Justice Encyclopedia* (Sage, 2026).

In Review

Estien CO, LA Stanton, CJ Schell. Human densities, not pollution, affect urban coyote boldness and exploration. *Scientific Reports*. Preprint ([link](#)) ***Dissertation Chapter**

Eppley M, L Curtis, RJ Dellinger, **CO Estien**, L Forg, AJ Jones, A Lee, A Swank. Centering justice and belonging in DEI initiatives to mitigate harm and advance LGBTQIA+ inclusion in ecology and evolutionary biology. *Ecology and Evolution*.

van der Marel, A, X Francis, CL O'Connell, **CO Estien**, C Carminito, EA Hobson. Perturbations of key individuals trigger shifts in group-level dominance patterns. Preprint:

<https://ecoevorxiv.org/9qyb2/>

Hentanti Y, **CO Estien**, Z Hawn, M Jordon, R Long, R Mueller, K Remine, L Prugh, CJ Schell.

Environmental contamination predicts mammal diversity and mesocarnivore activity in the Seattle-Tacoma metro area. *Urban Ecosystems*. Preprint ([link](#))

Estien CO, LA Stanton, CJ Schell. Urban raccoon boldness and exploration vary with coyote presence. *Biology Letters*. ***Dissertation Chapter**

Wilkinson CE, **CO Estien**, O Nguyen, A Green. Recreating and working as a systemically minoritized person in the outdoors. ***Book Chapter**

Williams TD, DJ Herrera, **CO Estien**, CE Wilkinson, J Brashares, CJ Schell. Social-ecological factors influence the detection and temporality of free-roaming domestic cats in urban shoreline parks. *Journal of Urban Ecology*.

In Prep

Estien CO, AP Hill, R Johnson, T Robinson, CJ Schell, CE Wilkinson. Leveraging urban areas can bolster regional conservation goals for habitat, connectivity, and biodiversity. *Conservation Letters*

OTHER JOURNAL PUBLICATIONS

1. **Estien, CO**, B Quintana, C Ramirez, LM Rodriguez. 2024. Justice First: Interdisciplinary Approaches in Environmental Justice Research and Efforts. *Bulletin of the Ecological Society of America*. ([link](#)) ***Summary of Justice First Symposium at 2023 ESA Conference**

FELLOWSHIPS & GRANTS total > \$200,000

Research & Outreach Grants

Oliver B. Lyman Award (\$3,812), UC Berkeley Wildlife & Fisheries Program	2022
William Simes Research Award (\$1,000), Hastings Natural History Reservation	2022
Community Fund for Carmel Valley (\$2,992), Monterey County	2021
Carol Baird Graduate Research Award (\$25,000), University of California	2021

Fellowships

Graduate Research Fellowship (\$102,000 + tuition/fees), National Science Foundation	2023 – 2026
Chancellor's Fellowship for Graduate Study (\$68,000 + tuition/fees), UC Berkeley	2021 – 2023

Conference Related Grants

Travel Grant (\$2800), <i>International Society of Behavioral Ecologists</i>	2024
Travel Grant (\$1500), <i>UC Berkeley Graduate Division</i>	2024
Travel Award (\$500), <i>Ecological Society of America</i>	2023
Broadening Participation Award (\$2500), <i>Animal Behavior Society</i>	2023
Travel Award (\$800), <i>SEEP Workshop</i>	2023
Travel Award (\$800 - declined), <i>International Association for Landscape Ecology</i>	2023
Travel Award (\$600), <i>Ecological Society of America</i>	2022
Trailblazing in Education Travel Award (\$500), <i>Ecological Society of America Student Section</i>	2022
Travel Grant (\$1500), <i>UC Berkeley Graduate Division</i>	2022
Travel Award (\$1500), <i>SEEP Workshop</i>	2022
Registration Grant (\$35), <i>Urban Wildlife Working Group</i>	2021
SEEDS Travel Grant (travel costs + registration), <i>Ecological Society of America</i>	2020

PRESENTATIONS & PANELS *invited

21. **Estien, CO.** November 22 2024 Yesterday's Tomorrow: Exploring how societal inequities shapes the ecology of cities. Wildlife & Conservation Biology Seminar Series. ([link](#)) *University of California, Berkeley*. ***Finishing Talk/Defense**
21. **Estien, CO.** October 21 2024 *Exploring how societal inequities shapes the ecology of cities. *University of Richmond*.
20. **Estien, CO.** October 3 2024 *Exploring how societal inequities shapes the ecology of cities. *Utah Valley University*.
19. **Estien, CO.** Sept 11 2024. *The Social-Ecological Legacies of Injustice on Urban Biodiversity. *Californai Department of Fish & Wildlife, Biodiversity Week*
18. **Estien, CO.** June 27 2024. *Urban carnivores & the human-wildlife interface. *Pacific Grove Museum of Natural History in Monterey, CA*
17. **Estien, CO** et al. June 18 2024. *Historical redlining is associated with disparities in wildlife biodiversity in California. Ecology of Human-Nature Interactions Symposium. *American Association for the Advancement of Science's Pacific Division*. ***Dissertation Chapters**
16. **Estien, CO.** May 8 2024. *Complexity of Urban Biodiversity. *TOGETHER Bay Area, San Francisco*
15. **Estien, CO.** March 1 2024. *The legacy effects of historical redlining on environmental quality and wildlife biodiversity in California. *Richmond City Council*. ***Dissertation Chapters**
14. **Estien, CO.** November 15 2023. *The ecology of inequitable cities. *University of Texas - Austin*. ([link](#))
13. **Estien, CO.** October 24 2023. *The ecology of inequitable cities. *Utah Valley University*.
12. **Estien, CO.** October 11 2023. *Urban environments, rewilding, and environmental justice. *University of California, Berkeley*
11. **Estien, CO** et al. August 4 2023. *Historical redlining is associated with urban ecosystem health and heterogeneity in biodiversity. "Justice First: Interdisciplinary Approaches in Environmental Justice Research and Efforts" Symposium. *Ecological Society of America*. ***Dissertation Chapters**
10. **Estien, CO** et al. July 13 2023. Risky Landscapes: Social-ecological heterogeneity and risk-prone behavior in mesocarnivores. *Animal Behavior Society*. ***Dissertation chapter**
9. **Estien, CO.** June 10 2023. *Street Smarts: The social and ecological factors driving carnivore boldness. *Hastings Natural History Reservation*.
8. **Estien, CO** et al. June 7 2023. *Historical redlining is associated with urban ecosystem health and heterogeneity in biodiversity. "One Health in Wild Cities" Symposium. *International Urban Wildlife Conference*. (S*) ***Dissertation Chapters**
7. **Estien, CO.** March 22 2023. From Fields to Concrete Jungles: Exploring how Landscape Differences May Yield Behavioral Variability. *BairdFest Symposium*.

6. **Estien, CO**. March 15 2023. *Broadening our view of environmental justice. *University of California, Berkeley*.
5. **Estien, CO**. December 7 2022. *A More Intimate Ecology: Reimagining the Relationship between the Researcher and the Research(ed). Behavior, Ecology, and Evolution (BEE) Seminar Series. *University of Leeds*. ([link](#))
4. **Estien, CO**. November 14 2022. *Societal inequity and urban environments. *University of Illinois, Urbana-Champaign*.
3. **Estien, CO** et al. July 22 2022. *Playback Responses as a Tool to Understand Relationship Dynamics. “Social competency: an integrative approach to understanding connections between social information, decision-making, and cognition” Symposium. *Animal Behavior Society* ***Post-baccalaureate project**
2. **Estien, CO**. January 28 2022. *The Village Makes the Person. Wildlife & Conservation Biology Seminar Series. *University of California, Berkeley* ([link](#))
1. **Estien, CO**. October 16 2020. The Influence of Microplastics on Fertilization Success and Sperm Availability in Purple Sea Urchins (*Arbacia punctulata*). Princeton Ecology and Evolutionary Biology Scholar Program. *Princeton University* (T) ***Undergraduate independent project**

Posters

- Estien, CO** et al. May 21 2022. Mesocarnivore Behavior in a Periurban Gardenscape. *SEEP Conference/Workshop*. ***Dissertation chapter**
- Estien, CO** et al. August 3 2021. Virtual Scientific Conference: Benefits and How to Support Underrepresented Students. *Animal Behavior Society Conference*.
- Estien, CO** et al. August 3 2020. The Influence of Microplastics on Fertilization Success and Sperm Availability in Purple Sea Urchins (*Arbacia punctulata*). *Ecological Society of America Conference*. ***Undergraduate independent project**

Selected Co-Authored Presentations

- K Darragh et al. (including **Estien, CO** and 14 other co-authors). November 2024. The EEB Language Project: Championing inclusive terminology in ecology and evolution. *Entomological Society of America*.
- MM Rice et al. (including **Estien, CO** and 14 other co-authors). August 2024. Language matters: Ecology and evolutionary biology terminology disproportionately harms marginalized groups. *Ecological Society of America Conference*.
- MA McCary, K Bailey, F Abbott, C Nilon, & **CO Estien**. August 2024. Inspiring the next generation of diverse ecologists: a national field trip on urban ecology for underrepresented minorities. *Ecological Society of America Conference*.
- M Epply, Lee A.*, Swank A.*, Curtis L.*, Estien C., Forg L., Dellinger R., Jones A. July 2024. Queer perspectives on ineffective DEI initiatives in ecology and evolutionary biology. *3rd Joint Congress on Evolutionary Biology*. (Poster)
- LA Stanton, **CO Estien**, G Huber, CJ Schell. July 2024. Societal and ecological heterogeneity is associated with mesopredators problem-solving ability. *Animal Behavior Society*.
- G Huber, LA Stanton, **CO Estien**, CJ Schell. July 2024. Backyard Boldness: Investigating how urban landscape heterogeneity affects mesopredator risk-taking behavior. *Animal Behavior Society*. (Poster) ***Undergraduate mentee**
- Schell, CJ, T Caspi, **CO Estien**, & BN Sacks. August 4 2023. *Stressed out: environmental health predicts variability in coyote ecophysiology in San Francisco, CA. “Justice First: Interdisciplinary Approaches in Environmental Justice Research and Efforts” Symposium. *Ecological Society of America Conference*.

- Stanton, LA, **CO Estien**, & CJ Schell. July 14 2023. *Stress and the City: Using conservation behavior to improve urban living for humans and wildlife. “Effects of Anthropogenic Stressors” Symposium. *Animal Behavior Society*.
- Stanton, LA, **CO Estien**, & CJ Schell. June 5 2023. Cognition and the City: Exploring how social-ecological factors shape urban carnivore cognition and problem-solving. *International Urban Wildlife Conference*.
- Carlen, EA, **CO Estien**, & CJ Schell. June 5 2023. Inequity’s Cloud: The Bias in Participatory Science Data. *International Urban Wildlife Conference*.
- Tumber-Davilla et al. (including **Estien, CO** and 14 other co-authors). August 17 2022. Championing Inclusive Terminology in Ecology and Evolution. ESA Inspire Session: Decolonizing and Diversifying Ecology. *Ecological Society of America Conference*.
- Stanton, LA, **CO Estien**, JK Young, J Lambert, & CJ Schell. July 21 2022. The effect of dietary supplementation on the cognitive performance of coyotes. *Animal Behavior Society Conference*.

Panels (all invited)

Nature Justice in Cities, (<i>New York University</i>)	November 2024
Resilient Mammals, <i>Black Mammalogists</i> (link)	September 2024
Backyard Predators, <i>Pacific Grove Museum of Natural History</i>	June 2024
Complexity of Conservation, <i>Together Bay Area</i>	May 2024
Biodiversity in Our Urban Spaces, <i>Manny’s & California Academy of Sciences</i>	April 2024
Pride in our Future, <i>Exploratorium</i>	June 2023
Early Career Researchers, <i>California Academy of Sciences</i>	June 2023
Diversity and Identity in Biodiversity Science Careers, <i>California Academy of Sciences</i>	May 2023
Africa Diaspora and Intersectionality in Mammalogy, <i>Black Mammalogists</i> (link)	May 2022
SEEDS Career Pathways, <i>University of California, Berkeley</i>	April 2022
Student Research in Ecology and Evolution (Panel), <i>Syracuse University</i>	November 2021
Perspective about Diversity in Skill Development, <i>ESA Student Section</i>	January 2021
Student Research in Ecology and Evolution, <i>Syracuse University</i>	November 2020
Opportunities for Summer STEM Research, <i>Florida State University</i>	October 2019

TEACHING

- Evolutionary Biology** (Instructor: Jessica Cusick; Utah Valley University): invited guest lecture on urban environments, the role of societal inequity, and disseminating research in urban ecology (Fall 2023, 2024)
- Urban Ecology – Field Course**, (Host: Fred Abbott (Ecological Society of America) and Matt McCarry (Rice University)): invited to assist 19 students in developing, executing, and presenting research projects on the relationship between social and ecological variables in Houston, TX (Fall 2023)
- Conservation + Tech – Fung Fellowship** (Instructor: Dan Zevin; University of California, Berkeley): invited guest lecture on urban ecology and environmental justice (Spring 2023, Fall 2023)
- Intro to Methods of Environmental Science** (Instructor: Patina Mendez; University of California, Berkeley): invited guest lecture on building a research question, crafting hypotheses, and preliminary doctoral research (Spring 2022)

MENTORING

Undergraduate Thesis Mentees:

- Misha Swink, *UC Berkeley* Fall 2024 – Present
 “Exploring the ecological and social dimensions of San Francisco’s tree planting initiative”

Vishal Subramanyan, <i>UC Berkeley</i>	Spring 2024 – Fall 2024
“Human disturbance and puma activity in the Bay Area”	
Dhruthi Mandavilli, <i>UC Berkeley</i>	Fall 2023 – Spring 2024
“Gentrification and bird biodiversity in San Francisco”	

Undergraduate Research Assistants

Esteban Contreras, <i>UC Berkeley</i>	February 2023 – Spring 2024
Vishal Subramanyan, <i>UC Berkeley</i>	April 2022 – Spring 2024
Nicole Cantangay, <i>UC Berkeley</i>	February 2023 – May 2023

SCIENCE COMMUNICATION & OUTREACH

Select Media Articles

Social-ecological frameworks and what the future may hold. May 26 th , 2022. <i>Life in the City Blog</i> . (link)	
What’s missing in urban ecology? May 10 th , 2022. <i>Life in the City Blog</i> . (link)	
How do we begin to center environmental justice? August 17 th , 2021. <i>Life in the City Blog</i> . (link)	

Science Communication

Contributor, <i>Life in the City: Urban Evolution Blog</i> (link)	August 2020 – May 2022
#SciQFriday Guest, <i>Twitter</i> (link)	August 2020

Press

We Out Here Podcasts , “Cesar Estien: ¡Yukon Ho!” with Cesar Estien (link)	May 2024
K9 Conservationists Podcasts , “Urban Ecology” with Cesar Estien (link)	August 2023
“Word for Word” Interview , DEI Newsletter at UC Berkeley (link)	July 2023
Sierra Magazine , “What is Queer Ecology?” Interview (link)	June 2023

Outreach

Real Talk Buddies Mentoring Program, <i>University of California, Berkeley</i>	March 2022 – August 2024
Biodiversity in Our Urban Spaces, <i>Manny’s & California Academy of Sciences</i>	April 2024
Nature Walk, <i>Richmond City Earth Day Celebration</i>	April 2024
After Dark College Night, <i>The Exploratorium</i>	September 2023
Open House Event, <i>Hastings Natural History Reservation</i>	June 2023
PEN Outreach Program (Founder), <i>Hastings Natural History Reservation</i> (link)	May 2022, 2023
Office Hours for Graduate School, <i>UC Berkeley: ESPM</i>	Oct. 2021, Nov. 2022
Diversity Forum, <i>SEEDS Program at ESA Conference 2022</i>	August 2022
Pride Nightlife Event, <i>California Academy of Sciences</i>	June 2022
Working Towards Diversity and Inclusion, <i>Walters Lab</i>	April 2022
Undergrad-Grad Pipeline, <i>UC Berkeley: ESPM</i>	February 2022
STEM Day (Keynote Speaker for 8 th -12 th grade), <i>Metas</i>	November 2021
“Trophic Level Pyramid Activity”, Involvement Fair, <i>Florida State University</i>	September 2019
“SustainabiliTEA”, University Housing, <i>Florida State University</i>	October 2017

PROFESSIONAL LEADERSHIP

Core Organizer, Real Talk Buddies Mentoring Program, <i>UC Berkeley</i> (link)	March 2022 – August 2024
Co-Chair, <i>Ecological Society of America: Environmental Justice Section</i>	September 2021 – October 2023
Outreach & Marketing Coord., <i>Ecological Society of America: Student Section</i>	September 2020 – August 2021
President & Co-founder, <i>FSU Ecological Society of America SEEDS Chapter</i>	January 2019 – May 2020

PROFESSIONAL SERVICE

Peer Review

Environmental Science & Technology Letters (3x)
 Ecosphere (1x)
 Frontiers in Ecology and Evolution (1x)
 Animal Behavior and Cognition (1x)

Award Review

Charles H. Turner Award Reviewer, *Animal Behavior Society* May 2021

Professional Society Service

ESA Visioning Project, *Ecological Society of America* January 2023
 Symposia/Special Session Reviewer, *Ecological Society of America* November 2021, 2022
 Search Committee: EIC for the Bulletin of ESA, *Ecological Society of America* May 2021 – October 2021
 Abstract Reviewer, *Ecological Society of America* March 2021

Department/University Service

Undergrad Outreach, *Graduate Diversity Council, UC Berkeley: ESPM* August 2021 – May 2022

Organized Conference Events

Environmental Justice Symposium, *Ecological Society of America* August 2023
 Modeling Workshop, *Ecological Society of America* August 2023
 Think Globally, Act Locally Special Session, *Ecological Society of America* August 2023
 Modeling Workshop, *Ecological Society of America* August 2022

TRAINING / SKILLS

Computer Software: RStudio, Raven Sound, VLC media player, ImageJ, ArcGIS Pro, ArcGIS Collector on iPad, BORIS, Microsoft Word, Microsoft PowerPoint, Adobe Illustrator, Microsoft Excel, Microsoft Access, Movie Studio Platinum 13.0 Some experience with: Netlogo, Ecos Database, ArcPad 10, QGIS

Animals Handling and Care: Palping and collaring of small mammals, Mist-netting and avian extraction, Adult and juvenile avian handling (measurements), Identification of stress behavior and attitude

Field Work: Live trapping, Telemetry, Tree climbing, GPS use/navigation, Working in bear country, Working alone in remote backcountry in northern latitudes, Proficient at navigating in backcountry environments and bushwhacking, Hiking 10-15km per day, Trimble/Garmin, Recognize and conduct behavioral observations on uniquely marked individuals (e.g., ear tags w/ color combination, avian color bands), Use of scope and binoculars for avian surveys and re-sighting color bands, Plant surveying (DBH tape use, invasive plant survey), Avian nest-searching, Camera-Traps, ATV/Mules, Marantz

Laboratory Work: Preparation of solutions, Microscopes, Dissections, Autoclave, Data Entry, Database Management, Hemocytometer Use, Growth and maintenance of algae, Preparation of sediment, water, and avian eggs for selenium testing, Some experience with: Inducing spawning in Sea Urchins, Use of microsattellites, DNA extraction