

CLAIRE NEMES

Ph.D. Candidate | University of Maryland Center for Environmental Science
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EDUCATION

- Ph.D. Ecology**, University of Maryland Center for Environmental Science Expected May 2023
 Dissertation: “Moving the goalposts: Migratory birds in a changing world”
 Advisor: Emily B. Cohen, Ph.D.
 Research Areas: Migration ecology, movement phenology, and stopover behavior of Nearctic-Neotropical migratory songbirds; direct and indirect impacts of anthropogenic threats to birds; and impacts of free-roaming domestic cats during migration and non-breeding seasons.
- M.S. Biology**, Ball State University 2016
 Thesis: “Microhabitat use by Cerulean Warblers (*Setophaga cerulea*) in southern Indiana”
 Advisor: Kamal Islam, Ph.D.
- B.S. Environmental Science and Policy**, University of Maryland 2013
 Concentration: Wildlife Ecology and Management
- Transfer Certificate**, Montgomery College 2011

RESEARCH EXPERIENCE

- Dissertation Research** 2018 - 2023
 Powdermill Avian Research Center, Rector, PA & San Juan, Puerto Rico
 Bird capture, tagging, and analysis to track local movement and continental-scale migration patterns via the Motus automated radio telemetry network. Designed and conducted field experiment to assess behavioral responses of migrating birds to predators on stopover. Designed, secured funding, and executed camera trapping and diet analysis project in Puerto Rico using spatial capture-recapture modeling and DNA metabarcoding to estimate free-roaming cat densities and diet. Non-thesis research includes collaborating with state, federal, and NGO partners in the Appalachian Mountains Joint Venture (AMJV) to monitor populations of forest bird species of concern via point count surveys and automated recording units.
- Bird Banding Trainee** 2017
Klamath Bird Observatory, Klamath Falls, OR
 Mist netting for passerines and near-passerines at sites throughout CA and OR; identification, ageing, and sexing of all species captured using Humphrey-Parkes and Wolfe-Ryder-Pyle methods.
- Gray Vireo Field Technician** 2017
Sevilleta National Wildlife Refuge, Socorro, NM
 Long-term demographic study of Gray Vireo nesting and post-fledging ecology at Sevilleta LTER. Nest searching and manual tracking of fledglings; experience in transmitter attachment, bleeding, color banding.
- Wildlife Biologist** 2016 – 2017
VT Conservation Management Institute, Marine Corps Base Quantico, VA
 Monitoring and management of game and nongame wildlife species for Integrated Natural Resources Management Plan. Assistance with Bald Eagle trapping, management of hunting check station, mammal capture and radio collaring, waterfowl surveys, and habitat maintenance.

Wildlife Biology Intern	2013 – 2014
USFWS Patuxent Research Refuge, Laurel, MD Waterfowl surveys, nest box monitoring, habitat management, game check station and hunt program administration, invasive species control.	
Avian Point Count Crew Leader	2013
Hubbard Brook Experimental Forest, North Woodstock, NH Long-term study to evaluate avian community composition along montane elevational gradient. Conducted fixed-radius avian point count surveys for all taxa; assisted with habitat and arthropod surveys.	
Research Experience for Undergraduates (REU) Intern	2012
Cary Institute of Ecosystem Studies, Millbrook, NY Developed and conducted field experiment on vocal signals in Veeries as undergraduate researcher.	
Seasonal Naturalist	2009 - 2013
M-NCPPC Brookside Nature Center, Wheaton, MD Assisted with educational programs, summer camps, interpretive materials design, trail maintenance, and volunteer projects; led introductory and advanced bird walks for children and adults.	

FELLOWSHIPS, AWARDS, GRANTS

Fellowships

Graduate Research Assistantship, MEES/UMCES Appalachian Lab	2018 – 2023
Graduate Student Summer Research Fellowship, UMD/MEES	2022
Fall Semester Fellowship for Students Delayed by Covid-19, UMD/MEES/UMCES	2021
Dean's Fellowship, College of Computer, Mathematical, and Natural Sciences, UMD	2018
Graduate Teaching Assistantship, Department of Biology, Ball State University	2014 – 2016
Graduate Merit Fellowship, Department of Biology, Ball State University	2014 – 2016

Awards

Mark E. Hauber Award - Best Student Presentation on Avian Behavior, Am. Ornith. Soc.	2022
Student Service Award, UMCES	2022
Reid Evans Menzer Memorial Graduate Award, UMD/MEES	2022
Outstanding Graduate in Field Sciences Award, Department of Biology, Ball State University	2016
Graduate Student Recognition Award, Department of Biology, Ball State University	2015 - 2016

Grants

Appalachian Laboratory Student Research Award, UMCES-AL	2018, 2022
Student Travel Award, American Ornithological Society	2022
Lewis and Clark Fund for Exploration and Field Research, American Philosophical Soc.	2020
David F. Ludwig Memorial Student Travel Award, AEHS Foundation (<i>unused due to pandemic</i>)	2019
Student Travel Award, Assoc. of Field Ornithologists/Wilson Ornith. Soc. (<i>declined</i>)	2019
Women in STEM Academic Scholarship, ABC Humane Wildlife	2019
Robertson Fellowship, Florida Ornithological Society	2019
Blake-Nuttall Fund Grant, Nuttall Ornithological Society	2018
Student Membership Award, American Ornithologists' Union	2016
Pinger Student Travel Award, Department of Biology, Ball State University	2015
Birdathon Grant, Amos Butler Audubon Society	2015
ASPiRE Student Research Grant, Ball State University	2015
ASPiRE Student Travel Grant, Ball State University	2015, 2016
Student Travel Award, American Ornithologist's Union/Cooper Ornithological Society	2015

PEER-REVIEWED PUBLICATIONS

In Review

Nemes, C.E., S.A. Cabrera-Cruz, M. Anderson, L.W. DeGroot, M. Massa, and E.B. Cohen. More than mortality: Indirect anthropogenic threats to migrating birds. *Ornithological Applications*.

Nemes, C.E., P.P. Marra, T.J. Zenzal Jr., S. Collins, B.C. Dossman, A.R. Gerson, C. Gómez, A.M. González, M. Gutierrez Ramirez, S.A. Hamer, J. Marty, P.L. Vasseur, and E.B. Cohen. Songbirds in North America catch the green wave, but not by surfing. *Journal of Animal Ecology*.

Shamon, H.I., R. Maor, [and 140 others, including **Nemes, C.E.**] SNAPSHOT USA 2021: A third coordinated national camera trap survey of the United States – initial trends. *Ecology*.

In Preparation

Nemes, C.E., A.M. Lindsay, L.W. DeGroot, and E.B. Cohen. Close encounters: Behavioral responses of migrating songbirds to the perceived risk of predation.

Published

Nemes, C.E. and K. Islam. 2017. Breeding season microhabitat use by the Cerulean Warbler (*Setophaga cerulea*) in an experimentally-managed forest. *Forest Ecology and Management* 387:52-63.

Nemes, C.E., D.M. Pirtle, and K. Islam. 2015. First documentation of a “double-decker” Cerulean Warbler (*Setophaga cerulea*) nest. *Wilson Journal of Ornithology* 127:534-538.

Belinsky, K.L., **C.E. Nemes**, and K.A. Schmidt. 2015. Two novel vocalizations are used by Veeries (*Catharus fuscescens*) during agonistic interactions. *PLoS One* 10(3): e0120933. doi:10.1371/journal.pone.0120933

Nemes, C. 2012. Veery queries: hypothesized aggressive vocalizations in a migratory songbird species. Undergraduate Ecology Research Reports. Cary Institute of Ecosystem Studies, Millbrook, NY.

Book Review

Nemes, C.E. 2018. Review of *Cat Wars: The devastating consequences of a cuddly killer* by Peter P. Marra and Chris Santella. *The Condor: Ornithological Applications* 120:462-464.

CONFERENCE PRESENTATIONS

Nemes, C.E., A.M. Lindsay, L.W. De Groot, and E.B. Cohen. Behavioral responses of migrating songbirds to the perceived risk of predation. Invited oral presentation (Stopover Symposium), American Ornithological Society/Birds Caribbean Conference, San Juan, Puerto Rico. 2022

Nemes, C.E., E.F. Nicole, M.C. Fitzpatrick, D.T.T. Flockhart, J.M. Mullinax, and E.B. Cohen. Density of free-roaming domestic cats in Puerto Rico and potential impacts on wildlife. American Ornithological Society/Birds Caribbean Conference, San Juan, Puerto Rico. 2022

Nemes, C.E., S. Guinn, et al. Do migrating songbirds track the “green wave” of emerging vegetation in spring? American Ornithological Society Meeting (virtual). 2021

- Fischer S.E., K. Granillo, H.C. Stevens, **C.E. Nemes**, and H.M. Streby. Tracking understudied songbirds in the desert: the post-fledging period of Gray Vireos. Poster presentation, American Ornithological Society Meeting, Tucson, AZ. 2018
- Nemes, C.E.** and K. Islam. Habitat use by Cerulean Warblers (*Setophaga cerulea*) in an experimental forest in Indiana. Western Bird Banding Association Annual Meeting, Cave Junction, OR. 2017
- Islam, K., C.D. Delancey, G.J. MacDonald, and **C.E. Nemes**. Radio tracking fledgling Cerulean Warblers (*Setophaga cerulea*) to determine post-fledging dispersal. Ornithological Congress of the Americas, Puerto Iguazú, Argentina. 2017
- Nemes, C.E.** and K. Islam. Microhabitat use by Cerulean Warblers (*Setophaga cerulea*) in an experimentally-managed forest in Indiana. North American Ornithological Conference, Washington, DC. 2016
- Nemes, C.E.**, C.D. Delancey, and K. Islam. Breeding season microhabitat use by Cerulean Warblers (*Setophaga cerulea*) in southern Indiana. 131st Annual Indiana Academy of Science Meeting, Indianapolis, IN. 2016
- Delancey, C.D. and **C.E. Nemes**. Cerulean Warbler research in the Hardwood Ecosystem Experiment. Co-presentation, Hardwood Ecosystem Experiment Researcher’s Workshop, West Lafayette, IN. 2016
- Nemes, C.E.**, C.D. Delancey, and K. Islam. Nest site and territory selection by Cerulean Warblers (*Setophaga cerulea*) in southern Indiana. Midwest Fish and Wildlife Conference, Grand Rapids, MI. 2016
- Nemes, C.E.** and K. Islam. The response of a mature forest-dependent species to silvicultural treatments. American Ornithologists’ Union/Cooper Ornithological Society Conference, Norman, OK. 2016
- Nemes, C.E.**, D.M. Pirtle, and K. Islam. Cerulean Warbler (*Setophaga cerulea*) reproductive success and relative abundance estimates in the Hardwood Ecosystem Experiment. 130th Annual Indiana Academy of Science Meeting, Indianapolis, IN. 2016
- Nemes, C.E.**, D.M. Pirtle, and K. Islam. Relative abundance and reproductive success of Cerulean Warblers in southern Indiana. Midwest Fish & Wildlife Conference, Indianapolis, IN. 2015
- Nemes, C.E.**, and K. Belinsky. Veery queries: Hypothesized aggressive vocalizations in a migratory songbird species. Cary Undergraduate Research Symposium, Millbrook, NY. 2012

PROFESSIONAL SERVICE & MENTORING

Journal Reviewer

Ornithology (formerly The Auk), Journal of Animal Ecology, Trends in Ecology and Evolution

BirdLab, Inc.

2022 - present

Board member (Secretary) of bird banding and conservation nonprofit in Pittsburgh, PA

UMCES Diversity, Equity, and Inclusion Collaborative

2020 - present

Graduate student representative; fieldwork safety sub-committee member

Appalachian Lab (AL) Diversity, Equity, and Inclusion Group

2021-present

Co-founder and co-leader

UMCES Graduate Student Council Representative	2018 - 2021
Appalachian Lab representative	
UMCES Accreditation Committee	2019 - 2021
Member of Working Group IV (Support of the Student Experience)	
American Ornithological Society Student Affairs Committee	2019
Diversity initiatives subcommittee member	
UMCES Mental Healthcare Committee	2019
Appalachian Lab representative	
UMCES-AL Animal Ecology Faculty Search Committee	2018
Student representative	
MEES Colloquium Planning Committee	2018
Student member	
Western Maryland STEM Fest	2018
Educational materials, booth attendant	
Robert Cooper Audubon Society	2015 - 2016
Programs Chair	
 M.S. Thesis Committee Member – Frostburg State University	 2019 - 2021
Thesis committee of Janeé Rhone, M.S. in Applied Ecology and Conservation Biology	
Thesis title: “Examining the potential of litterboxes as a means for monitoring free-roaming cats (<i>Felis catus</i>): Populations, behavior, diet, and health.”	

Undergraduates Mentored / Supervised

Alice Besterman, Ben Duke, Silas Fischer, Zachary Jameson, A’Laurenye’ McBeth, Atlee Wise

SELECT OUTREACH & SCIENCE COMMUNICATION

Invited Q&A/discussions on free-roaming domestic cats with Kit Straley’s undergraduate ornithology lab students, University of Massachusetts and Mt. Holyoke College (Virtual).	2020 - 2022
“Free-Roaming Cats 101.” Presentation to the Garden Club of Cumberland, Cumberland, MD.	2022
“What’s all the fuss about free-roaming cats?” Presentations to the Juniata Valley Audubon Society and Bedford County Bird and Nature Club, PA (Virtual).	2022
“Eyes on the skies (and on the ground)” with Dr. Emily Cohen. Article for the Maryland Yellowthroat, newsletter of the MD Ornithological Society (PDF).	2021
“Free-Roaming Cats 101: Ecological impacts of the world’s most beloved invasive species.” The Wildlife Society, Frostburg State University Chapter, MD (Virtual).	2021
“On the right track: new technologies and classic techniques for studying bird migration.” Allegany-Garrett Bird Club, Frostburg, MD (Virtual).	2021
“Indirect effects of free-roaming domestic cats on birds.” Allegany-Garrett Bird Club, Frostburg, MD.	2020
“Protecting Birds and Cats.” Feature article for the May/June 2019 Maryland Yellowthroat, newsletter of the MD Ornithological Society (PDF).	2019
“Cats and birds: What we know, what we don’t, and how to help.” Montgomery Bird Club, Potomac, MD.	2018
“Apocalypse Meow: How you and your cat can help save the planet.” Article for the Boston Hassle Science webpage (link)	2018

PROFESSIONAL DEVELOPMENT

Creating Inclusive Field Climates to Prevent Sexual Harassment and Assault Workshop	2022
Building a Better Fieldwork Future, UC Santa Cruz (Virtual)	
Dissertation Success Support Program	2022
The Graduate School at UMD, National Center for Faculty Development and Diversity (NCFDD)	
Motus Workshop	2019
Powdermill Avian Research Center, Rector, PA	
Bayesian Modeling for Socioenvironmental Data Short Course	2019
SESYNC, Annapolis, MD	

SKILLS

Software:	R, RStudio, ArcGIS, Garmin BaseCamp, Adobe Creative Suite, Qualtrics, MS Office Suite, GSuite, Zotero
Field:	Bird banding (sub-permittee, passerines and near-passerines); radio transmitter and geolocator attachment (leg-loop harness method, passerines); brachial venipuncture and tissue sampling (passerines); manual radiotelemetry (passerines, ungulates, bats) and ground tracking by foot and vehicle; automated radiotelemetry (Motus network); U.S. bird identification (visual, aural); avian point count surveys / distance sampling; nest searching and monitoring; territory mapping; behavioral observations; bioacoustic recording (automated recording units); wildlife camera trapping; small and large mammal trapping and handling (rabies vaccination 2016); morphometric data collection of harvested game species; plant identification and vegetation surveys; navigation via map, compass, and GPS; off-road 4WD vehicle operation (valid MD driver's license); basic vehicle maintenance and repair; power tool use and heavy equipment operation (tractors, mowers, etc.); specimen collection for eDNA metabarcoding
Modeling:	General and generalized linear models; mixed-effects models; spatial capture-recapture models (density estimation); species distribution modeling; organization, extraction, and analysis of animal tracking data in R
Other:	Scientific illustration (traditional media: pencil, watercolor, oil, acrylic); interpretive materials design; science writing for lay audiences; bird puns

VOLUNTEER SERVICE

MD-DC Breeding Bird Atlas 3 Volunteer , Maryland	2020 – present
Bird Banding Volunteer , Powdermill Avian Research Center, Rector, PA	2018 - present
USGS Breeding Bird Survey Volunteer , Warrens Mill, PA	2018 - 2022
Northern Saw-whet Owl Banding Volunteer , Swanton, MD	2018
Student , Avian Research and Education Institute Bird Banding Class, Miami, OH	2015 – 2016
Christmas Bird Count Volunteer	2010 - present
Great Backyard Bird Count Volunteer	2012 - 2017
Member , BSU Student Chapter of The Wildlife Society	2014 – 2016
Executive Board Member , UMD Student Chapter of The Wildlife Society	2011 – 2013
Bird Banding Volunteer , Patuxent Research Refuge Banding Station, Laurel, MD	2016
BSU Bird Banding Demonstrations , Muncie, IN	2016
BSU Bird Window Collision Surveys , Muncie, IN	2015
Indiana Department of Natural Resources Sandhill Crane Surveys , IN	2015