

Samuel A. Merker, PhD

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[google scholar](#)

Current Position

Postdoctoral Researcher – New Mexico State University, November 2023-present.

Postdoctoral Researcher – University of Connecticut, 2021-2023

Relevant Education

University of Georgia – Athens, GA: Doctor of Philosophy – 2021

University of Georgia – Athens, GA: Masters of Science – 2017

University of New Hampshire – Durham, NH: BS in Environmental Science – 2010

Grants

Waterbird Society Kushlan Grant 2022 – *Discovering the secret life of American Bitterns* – \$6,732

Connecticut Ornithological Association Mini-grant 2022: *Discovering the secret life of American bitterns* – \$675

Bill Terrell Graduate Research Grant 2019: *Improving nest searching efficiency through the use of VHF radio transmitters* – \$6,812

Bill Terrell Graduate Research Grant 2018: *Investigating the effect of temperature and humidity on hatch rates and nestling development of two migratory songbirds across an elevation gradient* – \$5,950

STEMzone 2017 – On behalf of Oconee Rivers Audubon Society – \$160

Bill Terrell Graduate Research Grant 2015: *Investigating the factors limiting species distributions at low latitude range margins: A case study of the Canada Warbler* – \$3,200

Oconee Rivers Audubon Society Conservation Grant – \$450

AOU Student Travel Award to 2016 North American Ornithological Conference – \$180

Publications (peer-reviewed)

Merker, S.A., Sillett, T.S., Cooper, R.J., and Chandler, R.B. *Egg translocation across a local range boundary reduces hatch rates in a trailing-edge population of a migratory songbird.* Pending submitted to *Ornithology*.

Merker, S.A. and Chandler, R.B. 2021. *An experimental test of the Allee effect range limitation hypothesis* *Journal of Animal Ecology*. 2020;00:1-9

Merker, S. A. and Chandler, R.B. 2020. *Identifying global hotspots of avian trailing-edge population diversity.* *Global Ecology and Conservation*, 22: e00915

Chandler, R.B., J. Hepinstall-Cymerman, S. Merker, H. Abernathy-Conners, and R.J. Cooper. 2018. *Characterizing spatio-temporal variation in survival and recruitment with integrated population models.* *The Auk* 135:3, 409-426.

Larson, K.W; Smith, J.A.M; Merker, S.A; Reitsma, L.R. 2013. *Plasticity in the Swainson's thrush (Catharus ustulatus) pre-basic molt*. North American Bird Bander 38: 28-30.

Publications (non peer-reviewed)

Connecticut Bird Atlas. In Press.

Merker, S.A. **So You Want To Trap an American Bittern**. Guest post for Cellular Tracking Technologies. March 2023. <https://celltracktech.com/blogs/news/guest-post-so-you-want-to-trap-an-american-bittern>

Merker, S.A. **American Bitterns in Connecticut**. Guest Blog for Cellular Tracking Technologies. February 2023 <https://celltracktech.com/blogs/news/american-bitterns-in-connecticut>

Huang, M. and Merker, S.A. *American bittern research*. Connecticut Wildlife Magazine. October 2022.

Relevant Employment History

07/2021-12/2023 Postdoctoral Researcher, University of Connecticut, Storrs, CT
01/2015-08/2021 Graduate Research/Teaching Assistant – UGA, Athens, GA
10/2014-12/2014 Crew Leader – Island Scrub Jay Project, Santa Cruz Island, CA
2009-2014 Field Technician – various seasonal avian ecology projects including:
Canada Warblers – Coweeta Hydrologic Lab, NC, Black-throated blue warblers - Hubbard Brook, American restarts – Jamaica, White-throated sparrow – Adirondacks, Common loon – New Hampshire, Island Scrub Jay – Santa Cruz Island, CA

Professional Presentations

Western Connecticut Bird Club. Invited Speaker. Scheduled January 2024. *Southern Appalachian Mountain Songbirds*. Co-author: Richard Chandler.

New Haven Bird Club. Invited Speaker. Scheduled January 2024. *Where have all the shy folk gone? Tracking American Bitterns in Connecticut*.

Hartford Audubon Society. Invited Speaker. October 2023. *Where have all the shy folk gone? Tracking American Bitterns in Connecticut*.

Joint meeting of the American Ornithological Society and Society of Canadian Ornithologists. London, Ontario. Importance of detection probability and recent advances in estimation: Symposium. August 2023. *Howe detect wildlife – does ignoring visual detections affect our estimates?* Co-authors: Chris Elphick and Morgan Tingley.

Litchfield Hills Audubon Society. Invited Speaker. January 2023. *The American Bittern Project*.

Western Connecticut Bird Club. Invited Speaker. Sept 2022. *Tracking American Bitterns in Connecticut*.

Ecology and Evolutionary Biology. Invited Speaker 2022: *Global distributions and factors limiting species distributions at the trailing-edge*. University of Connecticut.

North American Ornithological Conference 2020, Virtual NAOC. *Poster: Do Socially-mediated Allee effects limit trailing-edge populations?* Co-author: Richard Chandler

Joint meeting of the Wilson Ornithological Society and the Association of Field Ornithologists, 2019, Cape May, NJ: ***Cape May Raptor Banding Project: 50+ years of conservation through banding.*** Co-authors: Cape May Raptor Banders

Joint meeting of the Wilson Ornithological Society and the Association of Field Ornithologists, 2019, Cape May, NJ: ***Identifying global hotspots of trailing-edge population diversity: A case study of the Southern Appalachian Mountains.*** Co-author: Richard Chandler

Atlanta Audubon Society 2019: ***Songbirds of the southern Appalachian Mountains: The trailing-edge vs the core and a thrilling tale of competition between our feathered friends.*** Co-authors: William Lewis, Richard Chandler, Ryan Chitwood, Scott Sillett, Robert Cooper.

Joint meeting of the Association of Field Ornithologists and the Wilson Ornithological Society, 2018, Chattanooga, TN: ***Does competition determine warm-edge range limits in the southern Appalachian Mountains?***

Warnell Graduate Student Symposium 2017: ***A songbird dispute at the warm-edge: interference or apparent competition.***

Oconee Rivers Audubon Society 2017: ***Range shifts and migratory songbirds in the southern Appalachians.*** Co-author: Ryan Chitwood

North American Ornithological Conference 2016: ***Investigating factors limiting species distributions at low-latitude range margins.*** Co-author: Richard Chandler

Poster presentations

Birds across New England: the Audubon regional conservation symposium. Jan 2023. ***Poster: Finding Shy Folk: Tracking American Bitterns (*Botaurus lentiginosus*) In Connecticut.***

North American Ornithological Conference 2020, Virtual NAOC. ***Poster: Do Socially-mediated Allee effects limit trailing-edge populations?*** Co-author: Richard Chandler

Awards

Stoddard-Burleigh-Sutton Award for outstanding contributions to Ornithology 2021.

Wilson Ornithological Society Lyndz Jones Award 2020. ***Do Socially-mediated Allee effects limit trailing-edge populations?*** At the North American Ornithological Conference 2020.

Warnell School of Forestry and Natural Resources 2020 Outstanding Teaching Assistant Award: Experimental Methods in Natural Resources Research (Experimental Design)

Teaching Experience

Guest Lecture – Wildlife Techniques, UConn – Fall 2023

Experimental Methods in Natural Resources – Teaching Assistant, UGA – Fall 2018-2020

Spatial Analysis for Natural Systems – Teaching Assistant, UGA – Fall 2017

Ornithology – Teaching Assistant, UGA – Spring 2016 & 17 & UNH – Spring 2009 & 10

Soil Science – Teaching Assistant, UGA – Fall 2015

Community involvement and Mentoring

UConn Undergraduates Mentored: Laurel Humphrey and Zhiyuan (Jerry) Su

UGA Undergraduates Mentored: Jordan Waller, Joelle Carbonell-Bierbaum, Emily Wolfe.

High School Mentoring (Cedar Shoals) - Hadiza Saar, Aseel Mansour, Jose Garcia

Oconee Rivers Audubon Society – Vice President 2017-2021

Cape May Raptor Banding Project – Science and Research Committee Member (2020-current)

Professional Memberships

Waterbird Society

Wilson Ornithological Society

American Field Ornithologists

American Ornithologists Society

Georgia Ornithological Society