

# Maina Handmaker

PhD Student | University of South Carolina  
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## EDUCATION

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- 2020-present | **University of South Carolina**, Columbia, South Carolina  
PhD Student, Senner Lab, Department of Biological Sciences - Ecology Concentration  
Advisor: Dr. Nathan Senner  
**National Science Foundation Graduate Research Fellow**
- 2007-2011 | **Bowdoin College**, Brunswick, Maine  
B.A. Environmental Studies and Visual Arts

## WORK EXPERIENCE

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- 2017-2020 | Communications Specialist and Program Associate  
**Western Hemisphere Shorebird Reserve Network (WHSRN), Shorebird Recovery Program, Manomet, Inc.**  
*Designed and managed WHSRN website, newsletter, and site partner outreach and support in English and Spanish; assisted Shorebird Habitat Management Division with workshops, outreach, and publications.*
- 2010-2016 | Field Crew, Greenhouse Manager, and Farmers' Market Manager  
**Six River Farm**, Bowdoinham, Maine

## RESEARCH EXPERIENCE

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- 2020-present | **PhD Research**  
*Studying the role nocturnal roosts play in the stopover ecology and migratory performance of Atlantic Flyway Whimbrel (*Numenius phaeopus*). Conducting nocturnal ground counts, trapping and banding birds, deploying PinPoint GPS transmitters, coordinating fieldwork logistics, leading study design, managing survey and tracking data, analyzing and mapping movement tracks, building movement models and conducting statistical analyses to understand stopover ecology, behavior, and habitat selection.*
- 2020 | **Shorebird Technician**, South Carolina Department of Natural Resources (SCDNR)  
*Analyzed Whimbrel count data and deployed first GPS PinPoint tag on a southbound Whimbrel as pilot study for graduate research project. Designed and coded figures in R, began manuscript about largest known Whimbrel nocturnal roost in Western Hemisphere. Assisted Felicia Sanders (SCDNR) and Dr. Adam Smith (USFWS) with post-processing of Ruddy Turnstone nanotag data, literature review, and drafting manuscript for publication.*
- 2017 | **Co-lead Bander and Education Coordinator**, Manomet, Inc.  
*Monitored 50 mist nets 5 days a week with 3 other banders; extracted, banded, aged and sexed passerines and near-passerines. Coordinated education and outreach programming. Taught hands-on demonstrations about bird-banding and bird migration for school groups.*
- 2016 | **Migration Monitoring Assistant**, Thunder Cape Bird Observatory  
*Operated mist-nets, hawk nets, ground traps, and Heligoland traps. Extracted, banded, and measured biometrics, including nighttime protocol to band Northern Saw-whet Owls.*

## GRANTS, FELLOWSHIPS, AND RECOGNITIONS

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- 2021 | **Association of Field Ornithologists**  
**E. Alexander Bergstrom Memorial Research Award - PI (\$1,476)**
- Georgia Ornithological Society**  
**Bill Terrell Graduate Research Grant - PI (\$7,500)**
- 2020 | **NSF Graduate Research Fellowship (\$138,000)**
- National Fish and Wildlife Foundation**  
**Atlantic Flyway Shorebird Initiative Grant - Co-PI (\$84,418)**
- Carolina Bird Club Research Grant - PI (\$7,500)**
- 2011 | **Lydia Bell Award for Initiative in Public Service**, Bowdoin College
- Community Service Award in Environmental Studies**, Bowdoin College

## SCIENTIFIC PUBLICATIONS

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- 2021 | Sanders, F., **M. Handmaker**, A.S. Johnson & N.R. Senner. Nocturnal roost on South Carolina coast supports nearly half of Atlantic coast population of Hudsonian Whimbrel *Numenius hudsonicus* during northward migration. Wader Study 128(2): 117-124.
- 2019 | Kamm MD, Lloyd-Evans TL, **Handmaker M**, Reed JM. A half-century of changes in migratory landbird numbers along coastal Massachusetts. PLoS ONE 14(9): e0222232.

## POPULAR SCIENCE PUBLICATIONS AND MEDIA

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- 2018 | Iglecia, M. & **M. Handmaker**. *Whimbrels on the Wing*. Esri StoryMap. Publication of the Manomet Shorebird Recovery Program.
- 2017 | **Handmaker, M.** *Journey of a Semipalmated Sandpiper*. Esri StoryMap. Publication of the Western Hemisphere Shorebird Reserve Network (WHSRN).  
*\*Recognized by Esri one of 18 Favorite Community-Produced Story Maps of 2017, out of 250,000*

## PRESENTATIONS AT SCIENTIFIC MEETINGS

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- 2021 | **Handmaker, M.**, F. Sanders, A.S. Johnson & N.R. Senner. *Nocturnal roost on South Carolina coast supports nearly half of Atlantic coast population of Hudsonian Whimbrel Numenius hudsonicus during northward migration*. International Wader Study Group Conference. (Virtual)
- 2021 | **Handmaker, M.**, F. Sanders, A.S. Johnson & N.R. Senner. *Nocturnal roost on South Carolina coast supports nearly half of Atlantic coast population of Hudsonian Whimbrel Numenius phaeopus during northward migration*. American Ornithological Society Annual Meeting. (Virtual)

## INVITED TALKS AND WORKSHOPS

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- 2021 | **Discovery at Deveaux Bank: Learning from the largest known Whimbrel nocturnal roost**  
Guest speaker, Broome County Naturalists' Club, Vestal, New York (Virtual)
- 2020 | **“Comunicaciones efectivas para el Proyecto de Aves Playeras Migratorias”**  
*Invited virtual workshop on effective communication strategies for partners of the Migratory Shorebird Project. Delivered in Spanish and co-facilitated with WHSRN Assistant Director Laura Chamberlin and biologist Diana Eusse of Asociación Calidris.*
- 2013 | **TEDxDirigo Speaker:** invited speaker at Maine's TEDx event

## SERVICE AND OUTREACH

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- 2021-present | **Graduate Fellowship Peer Mentor**, University of South Carolina. Advise graduate students applying for the NSF GRFP.
- 2021-present | **Skype a Scientist** - Volunteer scientist participant; virtually connect with classrooms to answer student questions about ecology, migration, conducting research, and conservation.
- 2020-present | **Sub-committee member**, Monthly Series Sub-committee, Student Affairs Committee, American Ornithological Society. Plan virtual panel discussions, skill-building webinars, and social events to create community and offer professional development opportunities for among students in ornithology.

## RELEVANT COURSEWORK

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- 2021 | **Experimental Design and Analysis** - Dr. Nathan Senner, University of South Carolina  
**Marine Data Science in R** - Dr. Erin Meyer-Gutbrod, University of South Carolina (Audited)  
**Approaches and Applications in Species Distribution Modeling and Mapping** - Dr. John Kupfer, University of South Carolina
- 2020 | **Applied Statistics I** - Dr. Tracey Gunter, University of South Carolina  
**Life-history Strategies** - Dr. Carol Boggs, University of South Carolina
- 2018 | **Ecology** - Dr. Patricia Jones, Bowdoin College. (Audited)
- 2011 | **Ornithology** - Dr. Nathaniel Wheelwright, Bowdoin College.
- 2010 | **Behavioral Ecology** – Dr. Nathaniel Wheelwright, Bowdoin College. (Audited)

## SOFTWARE EXPERIENCE

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R Studio, Microsoft Office Suite, Google Docs, Slack, Quickbase, Wordpress, ArcGIS StoryMaps, Adobe Creative Suite, Zotero

## LANGUAGES

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English (native speaker), Spanish (proficient)