# Maina Handmaker

MSc Student | University of South Carolina mainah@email.sc.edu | (502)523.1157

#### **EDUCATION**

2020- | **University of South Carolina**, Columbia, South Carolina

MSc 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

2017-2020 | Communications Specialist and Program Associate

Western Hemisphere Shorebird Reserve Network, Shorebird Recovery Program Manomet, Inc.

Designed and managed WHSRN website, newsletter, and site partner outreach and support in English and Spanish; assited 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

2020- | MSc 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, managing survey and tracking data, analyzing movement tracks, coordinating fieldwork logistics.

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.

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 monitor and band Norther Saw-Whet Owls. Conducted daily visual migration monitoring from observation platform; compiled weather data and daily species totals. Entered banding data with Bandit software.

## **GRANTS, FELLOWSHIPS, AND RECOGNITIONS**

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, Bowdion College

### **SCIENTIFIC PUBLICATIONS**

in press | Sanders, F., **M. Handmaker** & A.S. Johnson. Nocturnal roost on South Carolina coast supports nearly half of Atlantic coast population of Hudsonian Whimbrel *Numenius* 

hudsonicus during northward migration. Wader Study.

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

2018 Iglecia, M. & M. Handmaker. *Whimbrels on the Wing*. Esri StoryMap. Publication of the Manomet Shorebird Recovery Program.

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

## TEACHING AND PRESENTATION EXPERIENCE

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.

2016 **Teaching Assistant**, University of California Education Abroad Program

Assisted with field instruciton and logistics for undergraduates enrolled in Tropical Biology and Conservation study abroad program in Monteverde, Costa Rica.

2013 **TEDxDirigo Speaker:** invited speaker at Maine's TEDx event

# RELEVANT COURSEWORK

| 2021 | <b>Experimental Design and Analysis</b> - Dr. Nathan Senner, University of South Carolina <b>Marine Data Science in R</b> - Dr. Erin Meyer-Gutbrod, University of South Carolina (Audited) |
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| 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 | <b>Behavioral Ecology</b> – Dr. Nathaniel Wheelwright, Bowdoin College. (Audited)  |

# SOFTWARE EXPERIENCE

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

# **LANGUAGES**

English (native speaker), Spanish (proficient)