SHARP
Saltmarsh Habitat & Avian Research Program

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5 Universities
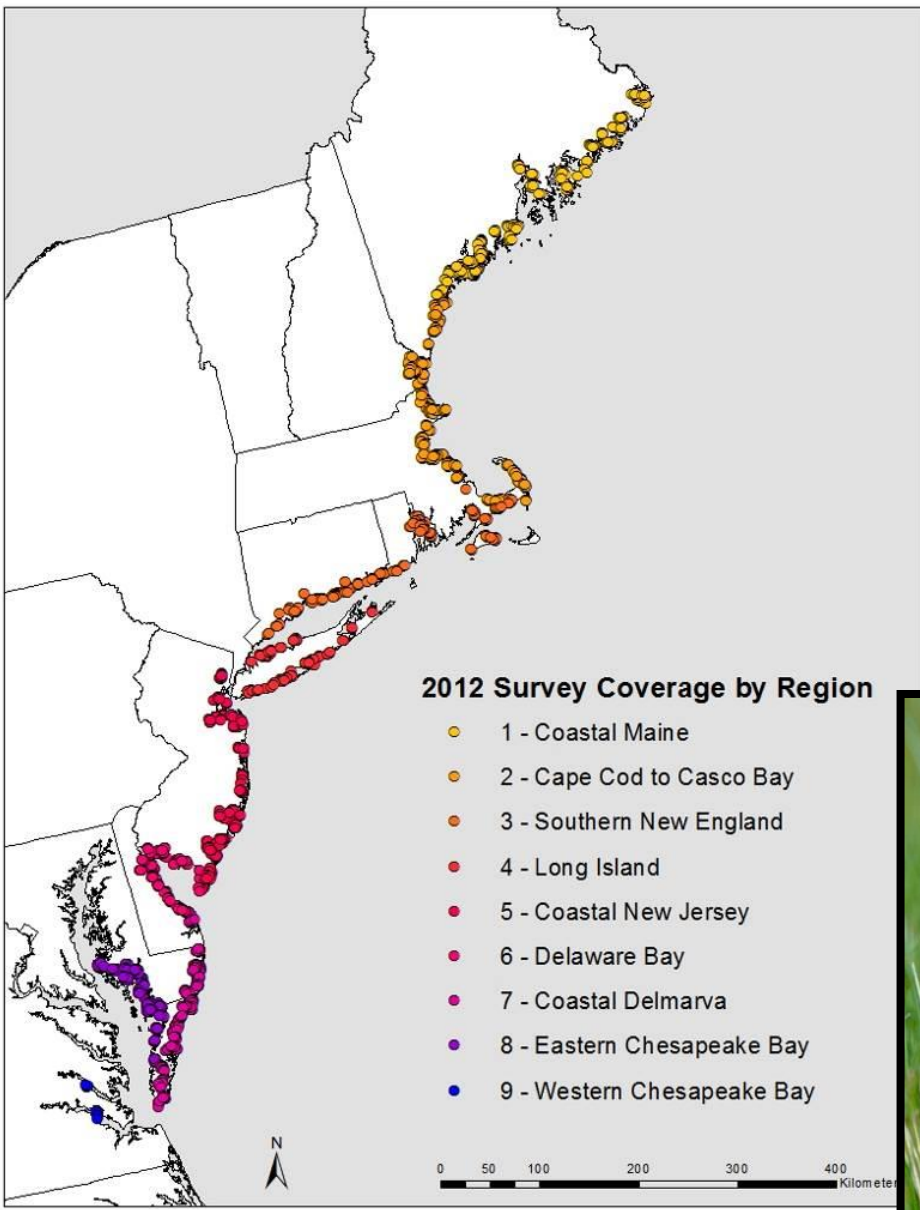10 States
14 Graduate students
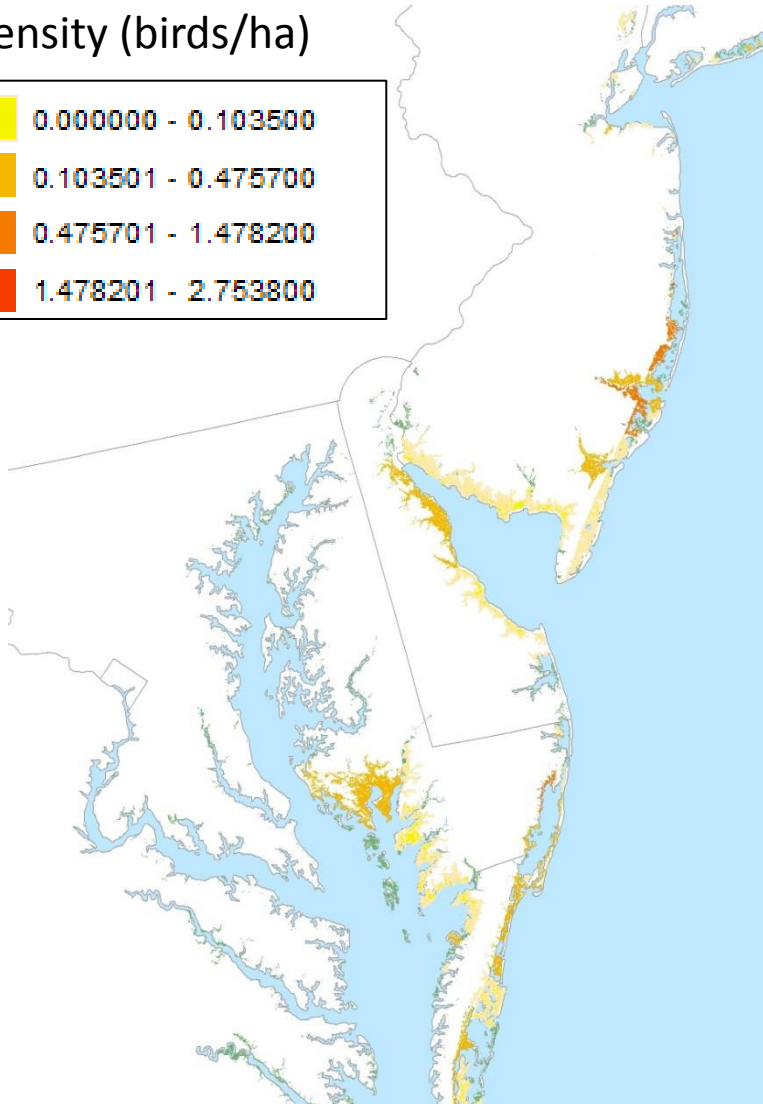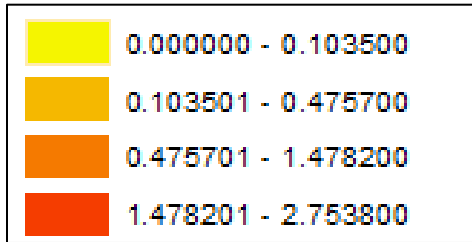4 Postdocs/Staff

~1700 SHARP survey points

2012 Survey Coverage by Region

- 1 - Coastal Maine
- 2 - Cape Cod to Casco Bay
- 3 - Southern New England
- 4 - Long Island
- 5 - Coastal New Jersey
- 6 - Delaware Bay
- 7 - Coastal Delmarva
- 8 - Eastern Chesapeake Bay
- 9 - Western Chesapeake Bay

0   50   100   200   300   400
Kilometers

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Estimate density in surveyed patches

[R – unmarked package]
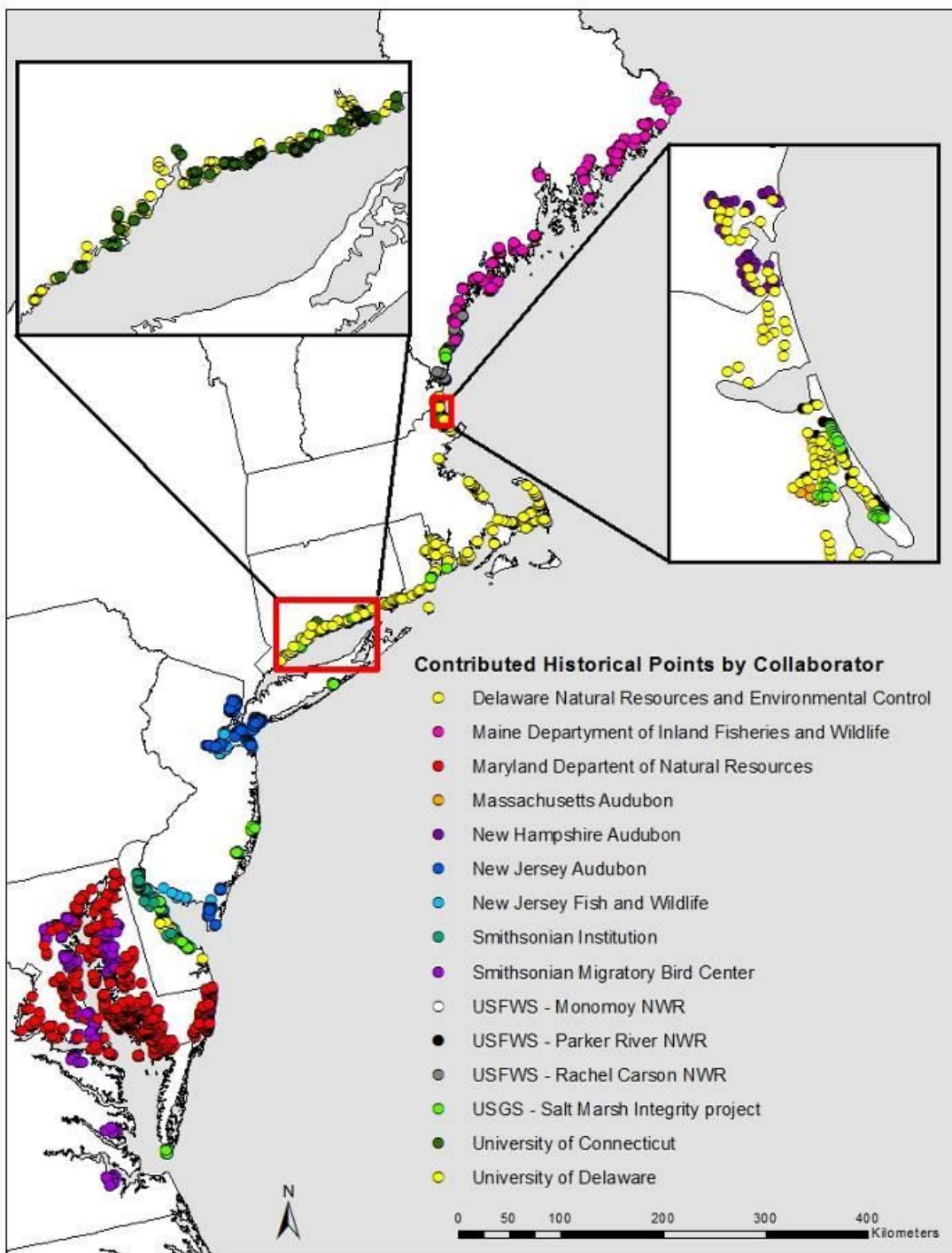

saltmarsh sparrow
density (birds/ha)

🟨	0.000000 - 0.103500
🟧	0.103501 - 0.475700
🟧	0.475701 - 1.478200
🟥	1.478201 - 2.753800

Whitney Wiest et al. MS

Predict density in un-surveyed patches (and project under sea-level rise)
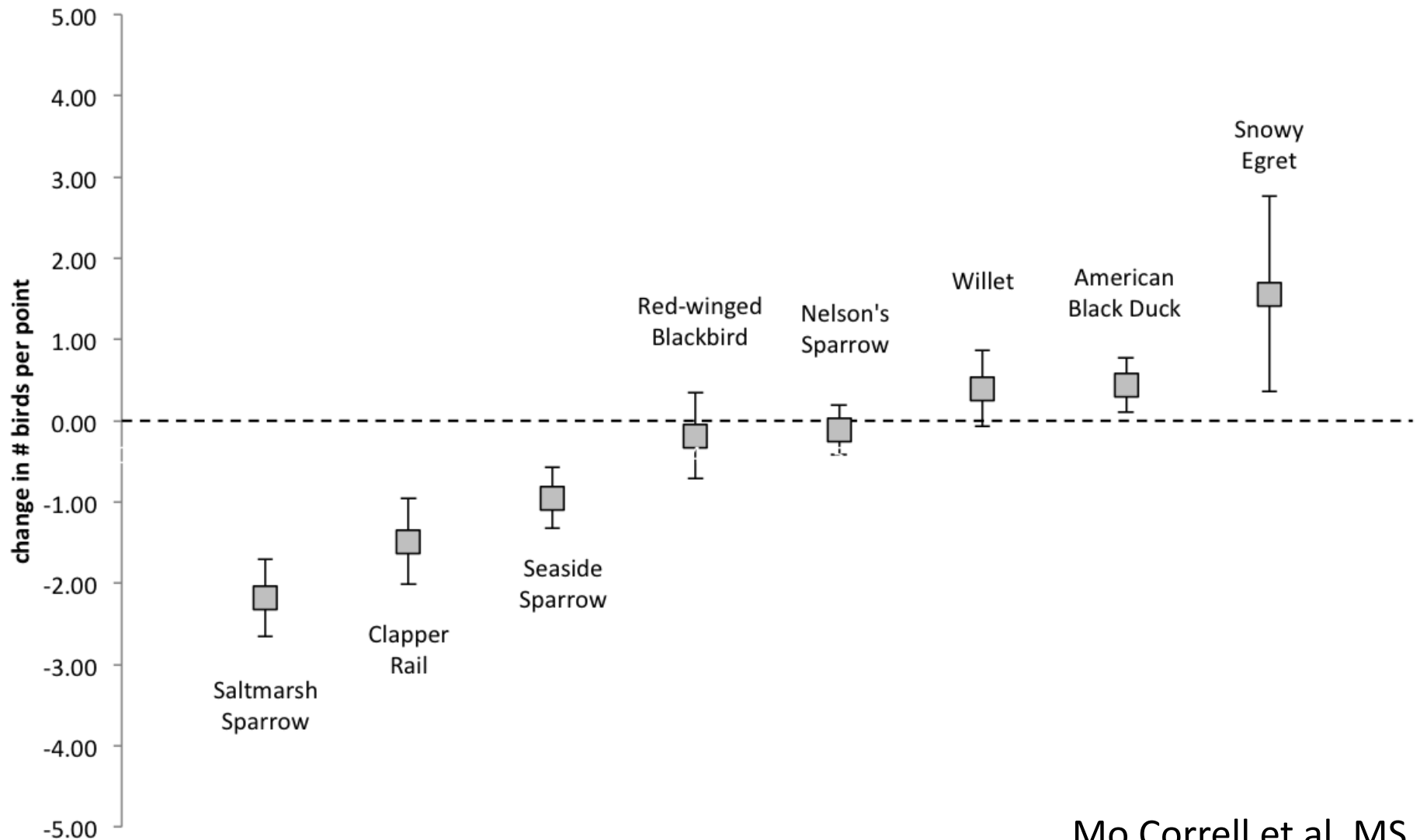## [Bayesnet – Netica]

Whitney Wiest et al. MS

Resurvey of historical points

- 3006 points with historical data
- resampled ~450
- mostly in New England

Contributed Historical Points by Collaborator

- ○ Delaware Natural Resources and Environmental Control
- ● Maine Departyment of Inland Fisheries and Wildlife
- ● Maryland Departent of Natural Resources
- ● Massachusetts Audubon
- ● New Hampshire Audubon
- ● New Jersey Audubon
- ● New Jersey Fish and Wildlife
- ● Smithsonian Institution
- ● Smithsonian Migratory Bird Center
- ○ USFWS - Monomoy NWR
- ● USFWS - Parker River NWR
- ● USFWS - Rachel Carson NWR
- ● USGS - Salt Marsh Integrity project
- ● University of Connecticut
- ● University of Delaware

0 50 100 200 300 400
Kilometers

Estimate population trends for sites with historical data (1990s-present)

Mo Correll et al. MS

SHARP demographic study sites
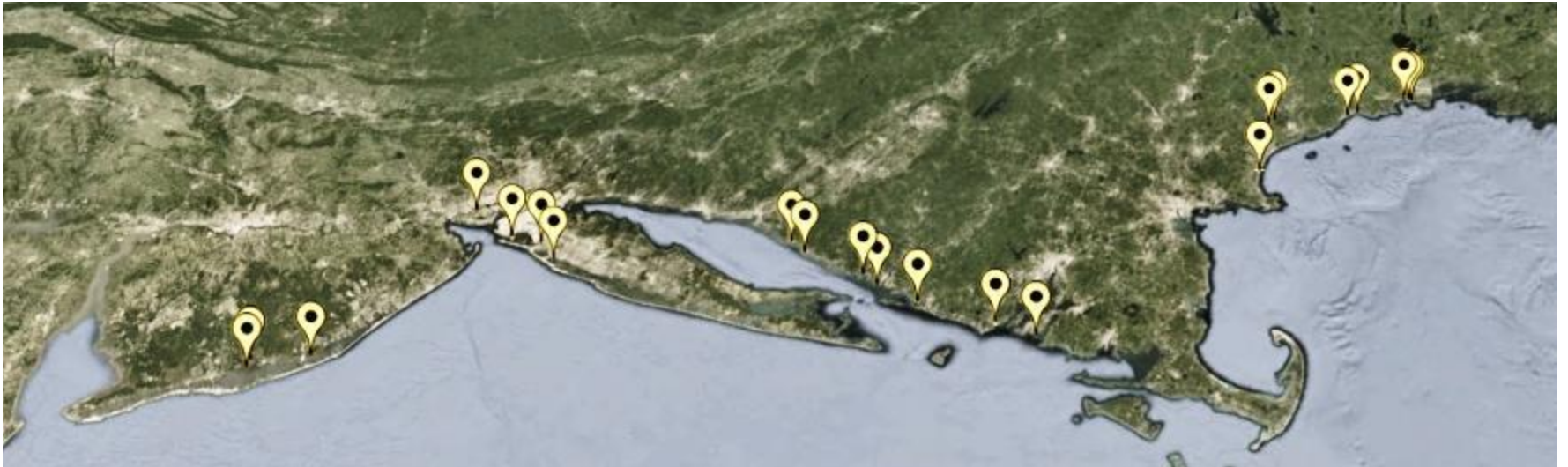
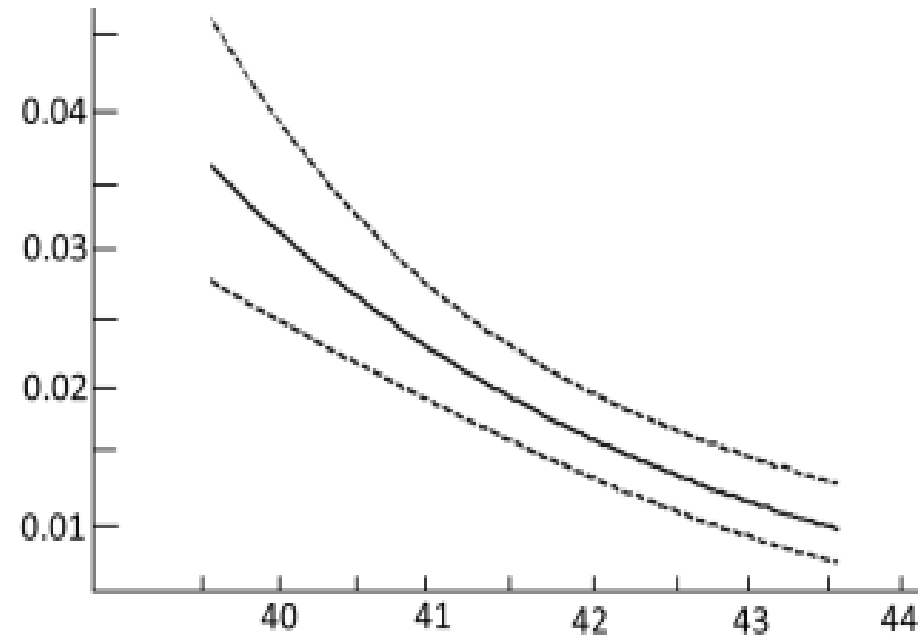Twenty-three ~10-15 ha plots across 7 states

Measurements from 2011 – 2014
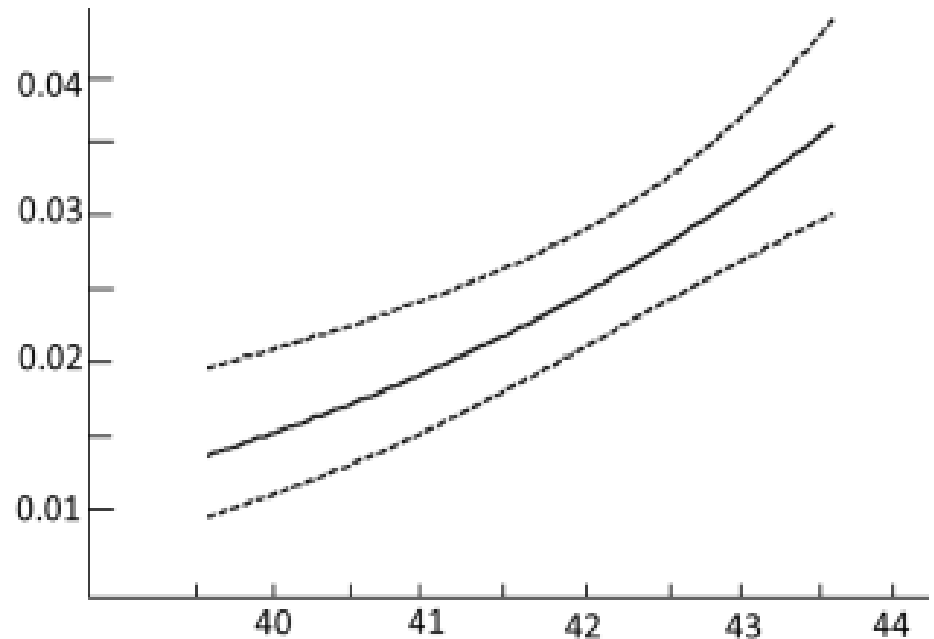
Fecundity data for 6 species

Adult survival estimates for 3 species

Quantify variation in fecundity and causes of nest loss
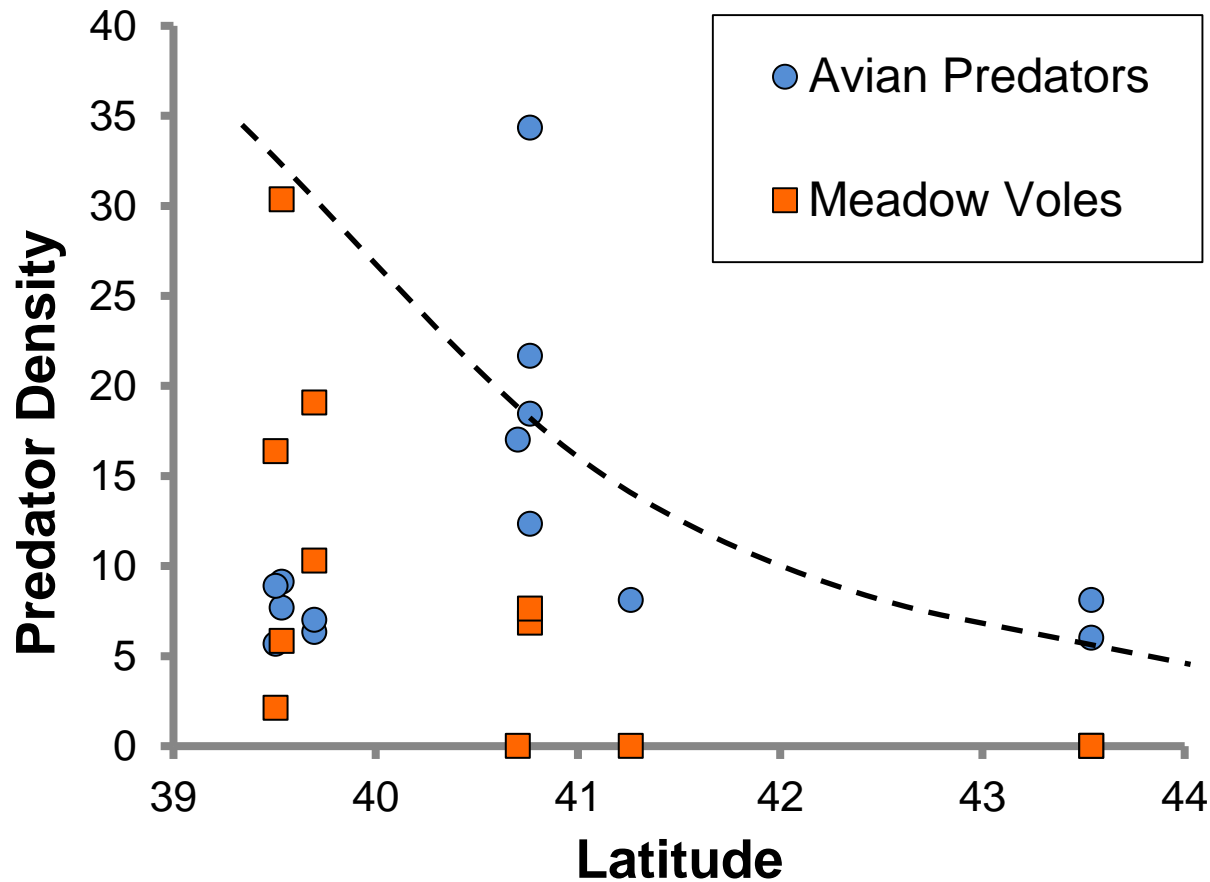

Daily depredation probability
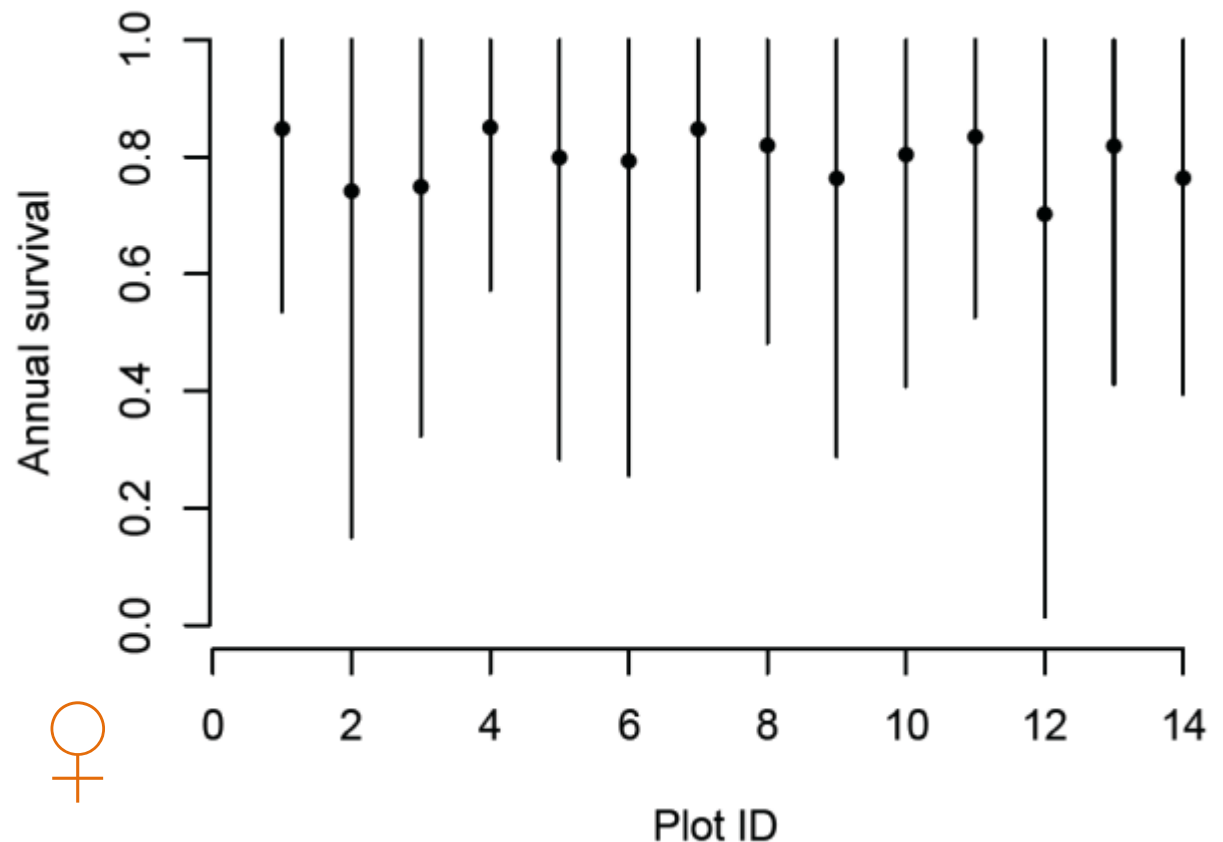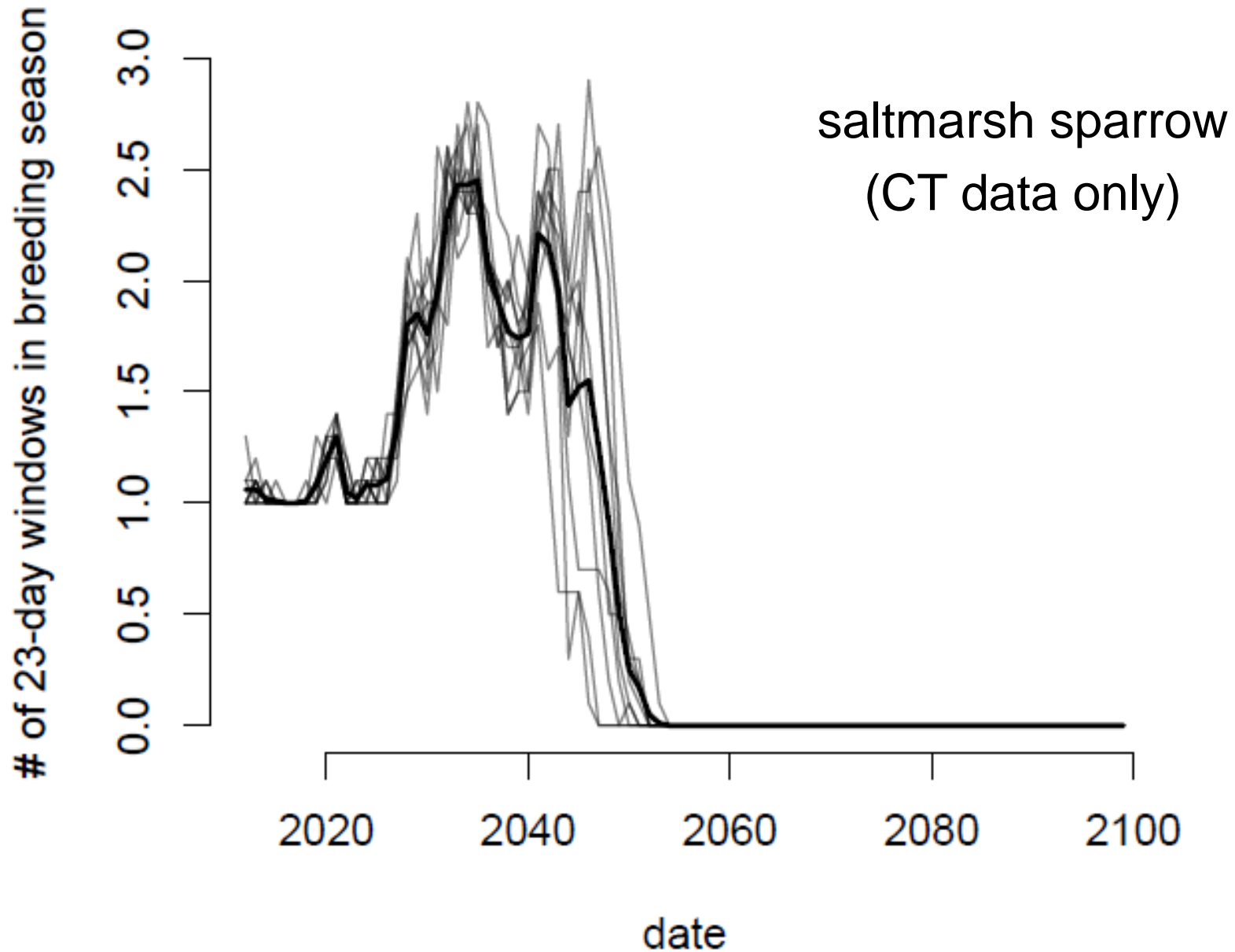
Daily flooding probability

Latitude

Kate Ruskin et al. MS

Quantify nest predator communities

Becky Kern et al. MS

Estimate survival rates for three species (2011-2013)

saltmarsh sparrow

Chris Field et al. MS

Estimate population viability

saltmarsh sparrow
(CT data only)

Chris Field, unpubl.

Long-term demographic change
(CT data only)

Annual change in nest density

saltmarsh sparrow   seaside sparrow   clapper rail

Field & Elphick unpubl.
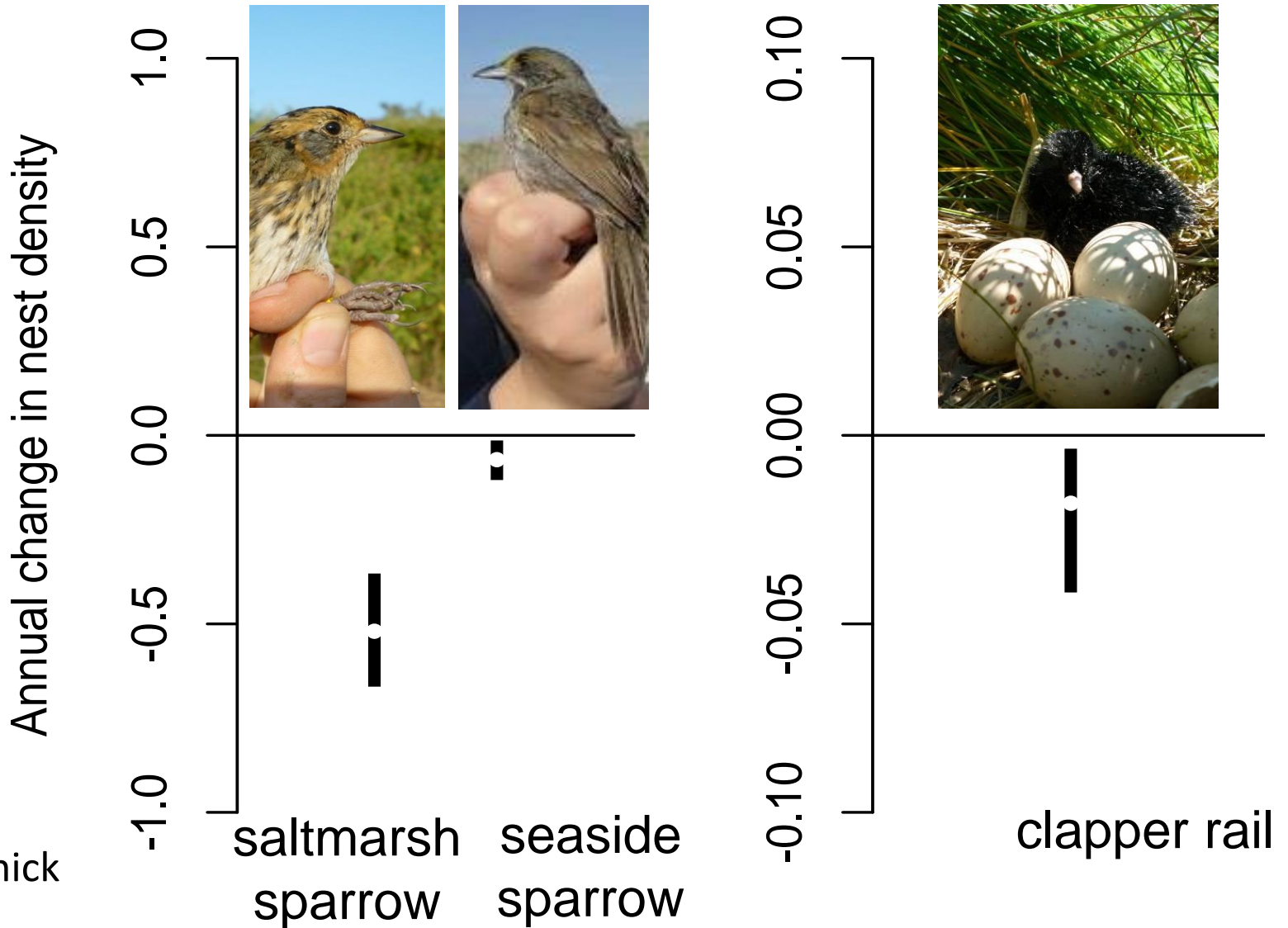
MORE INFORMATION:
http://www.tidalmarshbirds.org/
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#SHARPbirds

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