

The Trust has approved a five year project to investigate and document the presence of the Salt Marsh Sparrow at Jacobs Point in Warren, RI.

The Saltmarsh Sparrow Research Initiative

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In this 5-year research initiative, project staff will conduct intensive breeding ecology studies of the Saltmarsh Sparrow in a 35-acre tract of salt marsh in Warren, RI owned by the Warren Land Conservation Trust. The Saltmarsh Sparrow is a globally-threatened taxon which has become an indicator species for the impacts of sea-level rise on obligate salt-marsh nesting bird species in the northeastern United States. Our research will fill information gaps on the relationship of tidal-flooding and sea-level rise on the nesting success of this now-iconic species.

2017 Breeding Season Results

During 2017, the first full year of our study, we set nets during 19 days between 23 May and 7 August. We captured 31 adult males (25 of which were color-banded), 20 females (all color-banded), and 1 juvenile (color-banded). We banded 38 nestlings from 12 nests. In 2017 we captured two (1 female, 1 male) of the four adult Saltmarsh Sparrows we banded in 2016 (during a preliminary study).

In 2017, we found 24 nests between 16 June and 7 August, three of which had likely been active, but which were empty upon discovery (Figure 1). Active nests contained a maximum of 2-4 eggs and 2-4 nestlings. Overall, 17 young fledged from 8 nests; 14 banded young fledged from 7 nests. Nest success was 33% when calculated including the three nests found empty, and 38 % when excluding those three nests. The 17 fledglings represent 24% of the total of 72 eggs documented in the 21 active nests, and 35% of the total of 48 nestlings. Based on observations of un-banded females feeding fledglings after monthly flooding events, we estimate that a total of 20-25 Saltmarsh Sparrow nestlings, in total, fledged at our Jacob's Point study area during the 2017 breeding season.

The full complement of nestlings fledged from only two of the 21 active nests found. Ten nests were depredated destroying all eggs/nestlings, and one other nest was depredated leaving a single nestling. Flooding during new-moon spring-tide events destroyed three nests in their entirety, and destroyed some eggs or nestlings in an additional 5 nests. Data on nest elevations reveals that many of the depredated nests would likely have been lost to flooding had they survived to the new-moon period.

Community Awareness and Participation of The Saltmarsh Sparrow Research Initiative

Our research and results have been shared with many in the Rhode Island and southeastern Massachusetts communities, and thus have served to educate this populous in the dangers that the impacts of climate change pose to our estuarine fauna:

Providence Journal

Our research was featured on the front page of the Providence Sunday Journal on July 7, 2017 in an article by Alex Kuffner titled: Against a rising tide, the saltmarsh sparrow could be headed for extinction.

US Fish & Wildlife Service, Southern New England Coastal Program

At their invitation, we contributed a formal summary of our year-1 findings to this USFWS program as a contribution to their compilation of a “Species Status Assessment” for the Saltmarsh Sparrow.

Bryant University Biological Sciences, Nov 17, 2017

At the request of the Biology Department at Bryant University, the co-directors presented a program highlighting our Saltmarsh Sparrow research and goals, with a focus on behaviors participants could modify to reduce carbon emissions.

Ocean State Bird Club, Jan 18

At the request of the president of OSBC, the co-directors presented a program highlighting our Saltmarsh Sparrow research and goals, including discussions of sparrow behaviors captured on digital video by Katie Christ.

2018 Breeding Season

The Saltmarsh Sparrow Research Initiative (SSRI) is off to an auspicious start to our second year of researching this threatened bird at Jacob's Point (JP). Our team of 13 local volunteers, (ranging in age from ten years old to mid-seventies), has already recaptured 13 birds that were banded at JP in 2017, has banded 16 new sparrows, and located 4 active nests early in the breeding season.



Researchers carefully apply leg bands to a male Saltmarsh Sparrow (SALS).
Photo credit: Bryan Stokes



Each bird is given a 4-band color combination that is unique in the world.
Photo credit: Bryan Stokes



Evan Lipton, one of our core team members, has had his photos published in the Birds of North America Online
<https://birdsna.org/Species-Account/bna/species/sstspa>



Nests are located within 2 cm of the ground, making eggs and nestlings vulnerable to flooding with each New Moon cycle.

Deirdre Robinson, <https://birdsna.org/Species-Account/bna/species/sstspa>

This summer, we will be hosting four distinguished guests at the study site at JP:

Two international Artists-In-Residence from Brown University are studying the impact of rising tides on endangered species and have chosen the Saltmarsh Sparrow at Jacob's Point to illustrate the threat of global warming. A faculty member from the U.Maine, who was a post-doc fellow with SHARP (Saltmarsh Habitat and Research Program) at U.Conn will join us. An editor from *Living Bird*, published by the Cornell Lab of Ornithology, plans to visit in August.

In addition, we will be working on developing a website and continue to explore funding options with the goal of supporting internships for students interested in Conservation Biology.

For more information on the Saltmarsh Sparrow, go to https://www.allaboutbirds.org/guide/Saltmarsh_Sparrow, or

<https://www.tidalmarshbirds.org/>