July 2006

A Tale of Two Sparrows

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Two species of salt marsh sparrows, both of which are listed among the highest avian conservation priorities in eastern North America, share the same basic habitat: patches of salt marsh in Connecticut, on Long Island Sound shores. But even though their basic ecological requirements are similar, the seaside sparrow (*Ammodramus maritimus*) and the saltmarsh sharp-tailed sparrow (*A. caudacutus*) differ substantially in their breeding biology and their habitat use. Both species are found less frequently in small marsh patches than large ones, although saltmarsh sharp-tailed sparrows will tolerate smaller marshes than will the seaside sparrow.

Understanding why these birds won't nest in smaller marshes is key to their survival in Connecticut, where salt marshes tend to be fragmented and large-scale restorations are rarely an option.

Connecticut Sea Grant is currently contributing $138,000 to two years of a long-term study by UConn avian researcher Chris Elphick and colleague Margaret Rubega, who is also the State Ornithologist. They will examine movement patterns, predation of eggs and nestlings, survival of fledglings and adults, possible alterations in food supply, differences in plant distribution, increased vulnerability to flooding, and random settlement patterns. Study sites include Hammonassett and Guilford marshes.

They have helpers: research assistant Carina Gjerdrum, and a team of UConn students assist with the field sampling to investigate what factors the two marsh birds are sensitive to when they select habitat.

One of the study species, the saltmarsh sharp-tailed sparrow (see top photo at right), has recently been elevated to "Globally-Vulnerable" as an endangered species. This status has led to a designation or nomination of several large salt marshes in Connecticut as Globally Important Bird Areas by an international program that is identifying key sites for conservation action.

As a bonus, the team will monitor a third species, Nelson's sharp tailed sparrow, for migration and distribution. This species occurs in Connecticut only during its migration. Connecticut's shores are a critical part of the North American "flyway", a crucial corridor of rest stops for migratory birds.

In addition to Connecticut Sea Grant, current and past sponsors of this research include the U.S. Environmental Protection Agency, the Department of Environmental Protection, Audubon Connecticut, U.S. Fish & Wildlife, and bird conservation organizations. Results will help in marsh management as well as enhanced knowledge of the bird species and their ecology.

Elphick recently received a national Partners in Flight award for contributing to bird conservation.

How You Can Help!

The public is invited to help in the study! If you see color-banded birds or wish to report sightings of either of these two species in Connecticut, note your location and contact Professor Elphick by e-mail: <chris.elphick@uconn.edu>. Please be careful not to trample fragile marshes and nests.

The saltmarsh sharp-tailed sparrow is a globally-vulnerable species, found in Connecticut's coastal marshes. This research project will shed light on crucial habitat requirements.

Like the sparrow above, the endangered seaside sparrow inhabits patches of salt marshes in coastal Connecticut.

Patterns of predation on eggs and nestlings is an important part of this saltmarsh bird conservation study.

Photos: C. Elphick and C. Gjerdrum