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# Conserving South Carolina's At-Risk Species:

## *Species facing threats to their survival*

### Saltmarsh sparrow (*Ammospiza caudacuta*)



Saltmarsh sparrow; Photo credit: USFWS

#### Description

A medium-sized sparrow of eastern U.S. tidal marshes, the saltmarsh sparrow can be easily distinguished from similar sparrows (such as seaside sparrows) by its elongated cone-shaped bill, short tail, orange-buffy eyebrow and throat patches, and triangular shaped gray patches over the ear. A gray collar extends from the back of the neck to the sides of the neck and separates the crown pattern from that on the back of the body. The breast and sides have strong black streaks on a yellowish wash; the back shows white stripes. Legs are light brownish pink to pale brown. Populations of the bird south of New Jersey tend to be darker than populations further north.

#### Range

The saltmarsh sparrow is restricted to tidal salt marshes of the eastern U.S. It breeds from Maine south to the Delmarva Peninsula (Maryland/Virginia) and the lower Chesapeake Bay. There is no conclusive evidence of breeding, now or in the past, from the coastal marshes of North Carolina. The overwintering range is fragmented and restricted to tidally-influenced, herbaceous wetlands from the

Delmarva Peninsula south to Florida along the Atlantic and central Gulf coasts.

#### Habitat

Saltmarsh sparrows are restricted to tidal saltmarshes throughout the year. For nesting, they generally prefer higher-elevation, drier portions farthest removed from the reach of the tide, though this varies locally. Saltmeadow cordgrass, saltgrass, and needlerushes are key parts of the breeding habitat, but some birds nest in the upper intertidal parts of the marsh in smooth cordgrass. In winter, they use very similar habitats.

#### Status

Rangewide surveys estimated a decline of about 9% per year between 1998 and 2012, indicating an overall loss of 75% of the global population during that time. Saltmarsh sparrows are on Partners in Flight's Red Watch List, the highest level of conservation concern and have been designated a "flagship species" by the Atlantic Coast Joint Venture (ACJV). The U.S. Fish and Wildlife Service is currently conducting a discretionary review of the species for potential listing under the Endangered Species Act.

#### Threats

Tidal flooding and predation are the primary causes of death for eggs and young. Predators may include snakes, other birds, and mammals. Other causes of mortality include nest abandonment during egg laying, infertility, eggs that are not viable, parasites, starvation, and nest-tipping. There is limited information on causes of adult mortality but adult female mortality has been documented during predatory attacks on nests at night. A number of raptor species have also been implicated in adult saltmarsh sparrow deaths. Among the species' problems, sea level rise is the

most difficult to address. Increasing coastal development will make it difficult for saltmarsh habitat to move inland as sea levels rise. Habitat degradation is further exacerbated from polluted runoff, poor water quality, and invasive plants such as the common reed (*Phragmites australis*). There is also evidence to suggest that saltmarsh sparrows acquire higher levels of toxic mercury than seaside and Nelsons' sparrows, so they may be more susceptible to mercury pollution.

#### Management/Protection Needs

Management actions under consideration include protection of adjacent uplands for marshes to move into, reducing marsh erosion, and encouraging sediment flow to allow marshes to enlarge. *Phragmites* removal and subsequent restoration of natural marshes is also important. More extreme solutions such as the creation of floating marsh islands and captive breeding also have been discussed. Conservation planning work has also been conducted to identify and map areas where the bird occurs and how these areas may change under future sea-level rise scenarios. Visit the ACJV website for more information: <https://acjv.org/saltmarsh-sparrow-2/>

#### References

Greenlaw, J. S., C. S. Elphick, W. Post, and J. D. Rising (2018). Saltmarsh Sparrow (*Ammospiza caudacuta*), version 2.1. In *The Birds of North America* (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bna.sstspa.02.1>

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