



Birds

## Saltmarsh Sparrow

*Ammospiza caudacuta*

### Priority 1 Species of Greatest Conservation Need (SGCN)

**Class:** Birds (*Aves*)

**Order:** Perching Birds (*Passeriformes*)

**Family:** New World Sparrows (*Passerellidae*)



### General comments:

Saltmarsh Sparrows are streaky, orange-faced sparrows found exclusively in salt marshes along the Atlantic Coast. In Maine, they nest in narrow bands of high marsh composed of *Spartina patens* and other salt-tolerant grasses just above the high tide line, often only inches off the ground. Their future is threatened by sea-level rise, which increases the frequency of nest flooding and narrows the window between extreme tides, as well as by the loss and fragmentation of high marsh habitat from coastal development and tidal restrictions. Listed as Endangered in Maine, Saltmarsh Sparrows are one of the fastest declining birds in North America and face imminent extinction without urgent and coordinated conservation action.

### Species Conservation Range Maps:

Town Map: [Ammodramus caudacutus\\_Towns.pdf](#)

Subwatershed Map: [Ammodramus caudacutus\\_HUC12.pdf](#)

### SGCN Priority Ranking - Designation Criteria:

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                |                                      |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------|
| <b>Risk of Extirpation:</b>                 | <b>Maine Status:</b><br>Endangered                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Federal Status:</b><br>None | <b>IUCN Red List Status:</b><br>None |
| <b>Regional Endemic:</b>                    | <i>Ammospiza caudacuta</i> 's global geographic range is at least 90% contained within the area defined by USFWS Region 5, the Canadian Maritime Provinces, and southeastern Quebec (south of the St. Lawrence River).                                                                                                                                                                                                                                                                                |                                |                                      |
| <b>High Regional Conservation Priority:</b> | <p><b>Northeast Regional Synthesis (RSGCN):</b><br/>Responsibility: High, Concern: Very High</p> <p><b>NatureServe:</b><br/>Global Rank: G2 State Rank: S1</p> <p><b>Partners In Flight:</b><br/>Regional Concern: Yes, Regional Stewardship: , Regional Importance: Yes, Continental Importance: Yes</p> <p><b>United States Birds of Conservation Concern:</b><br/>Bird of Conservation Concern in Bird Conservation Regions 14 and/or 30: Yes</p> <p><b>Partners In Flight Landbird:</b><br/>X</p> |                                |                                      |

### Habitat Associations:

Saltmarsh Sparrow *Ammospiza caudacuta*

## Priority 1 SGCN



Formation: Intertidal

Macrogroup: Intertidal Tidal Marsh (peat-forming)

|                   |                                            |
|-------------------|--------------------------------------------|
| ★ Primary Habitat | Habitat System: Acadian Coastal Salt Marsh |
| ★ Primary Habitat | Habitat System: Coastal Plain Tidal Marsh  |

## Threats

| Threat Priority Level based on Severity and Actionability |                            | Moderate Severity | High Severity |
|-----------------------------------------------------------|----------------------------|-------------------|---------------|
|                                                           | Highly Actionable          | Medium-High       | High          |
|                                                           | Moderately Actionable      | Medium            | Medium-High   |
|                                                           | Actionable with Difficulty | Low               | Low           |

## IUCN Level 1 Threat      Other Options

## IUCN Level 2 Threat: Lack of knowledge

**Severity:** High Severity      **Actionability:** Highly Actionable

**Notes:** Effectiveness of tidal marsh restoration practices for Saltmarsh Sparrow conservation - Numerous tidal marsh restoration efforts are underway, offering hope for Saltmarsh Sparrow recovery. However, no studies have yet evaluated which specific restoration practices (e.g., sediment enhancement, hydrologic reconnection, invasive species removal) are most beneficial to the species. Pre- and post-restoration monitoring must be integrated into all restoration projects to ensure their effectiveness for Saltmarsh Sparrow conservation and to guide future management decisions.

## IUCN Level 1 Threat      Climate Change and Severe Weather

## IUCN Level 2 Threat: Habitat Shifting or Alteration

**Severity:** High Severity      **Actionability:** Moderately Actionable

**Notes:** Sea level rise and tidal flooding - Nest loss from regular high tides, increasingly worsened by sea-level rise, is the primary driver of population decline. Nesting is tightly linked to the lunar cycle and tidal timing, and even slight increases in mean water levels increase flooding risk.

Saltmarsh Sparrow *Ammodramus caudatus*

## Priority 1 SGCN



## IUCN Level 1 Threat    Invasive and Other Problematic Species, Genes and Diseases

## IUCN Level 2 Threat: Invasive Non-native-Alien Species-Diseases

|                                    |                                         |
|------------------------------------|-----------------------------------------|
| <b>Severity:</b> Moderate Severity | <b>Actionability:</b> Highly Actionable |
|------------------------------------|-----------------------------------------|

**Notes:**    Invasive Phragmites can outcompete native vegetation and create unsuitable habitat structure

## IUCN Level 2 Threat: Problematic Native Species-Diseases

|                                    |                                         |
|------------------------------------|-----------------------------------------|
| <b>Severity:</b> Moderate Severity | <b>Actionability:</b> Highly Actionable |
|------------------------------------|-----------------------------------------|

**Notes:**    Hybridizing with Nelson's Sparrow; may be expanding

## IUCN Level 1 Threat    Natural Systems Modifications

## IUCN Level 2 Threat: Dams and Water Management-Use

|                                |                                             |
|--------------------------------|---------------------------------------------|
| <b>Severity:</b> High Severity | <b>Actionability:</b> Moderately Actionable |
|--------------------------------|---------------------------------------------|

**Notes:**    Tidal restrictions, tide gates, impoundments, and ditching: Altered hydrology, including historic ditching and culvert-tide gate restrictions, reduces marsh resilience by limiting sediment delivery and accelerating marsh drowning.

## IUCN Level 1 Threat    Pollution

## IUCN Level 2 Threat: Air-Borne Pollutants

|                                    |                                             |
|------------------------------------|---------------------------------------------|
| <b>Severity:</b> Moderate Severity | <b>Actionability:</b> Moderately Actionable |
|------------------------------------|---------------------------------------------|

**Notes:**    Elevated mercury levels have been found in Saltmarsh Sparrows, especially in Maine. While the direct effects on reproduction are not yet fully understood, body burdens are within ranges known to affect other birds.

## IUCN Level 1 Threat    Residential and Commercial Development

## IUCN Level 2 Threat: Housing and Urban Areas

|                                    |                                             |
|------------------------------------|---------------------------------------------|
| <b>Severity:</b> Moderate Severity | <b>Actionability:</b> Moderately Actionable |
|------------------------------------|---------------------------------------------|

**Notes:**    Coastal development contributes to coastal squeeze, where upland barriers like roads and buildings prevent tidal marshes from migrating inland in response to sea-level rise. This loss of migration space threatens the long-term persistence of Saltmarsh Sparrow habitat, even in otherwise intact marshes.

Saltmarsh Sparrow *Ammospiza caudacuta*

## Priority 1 SGCN



## IUCN Level 1 Threat    Climate Change and Severe Weather

## IUCN Level 2 Threat: Changes in Precipitation and Hydrological Regimes

Severity: High Severity

Actionability: Actionable with Difficulty

**Notes:** Increasing intensity of summer rain storms; storm surges increasingly flood nests, especially during the breeding season, compounding losses and increasing risk to already vulnerable populations.

## Species Level Conservation Actions:

Only species specific conservation actions that address high (red) or medium-high (orange) priority threats are summarized here.

| Conservation Action                                                                                                                                           | Category | Biological Priority | Type |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------|------|
| Evaluate the role of tidal restoration in improving Saltmarsh Sparrow resilience to sea-level rise, compare effectiveness of different restoration practices. | Research | moderate            | new  |

## Threat(s) Addressed By This Conservation Action

- Dams and Water Management-Use
- Changes in Precipitation and Hydrological Regimes

| Conservation Action                                                                                                                                                                           | Category           | Biological Priority | Type     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|----------|
| Support and expand Phragmites control efforts where appropriate. Integrate long-term bird monitoring to evaluate restoration success and ensure treatment supports Saltmarsh Sparrow habitat. | Habitat Management | high                | on-going |

## Threat(s) Addressed By This Conservation Action

- Invasive Non-native-Alien Species-Diseases

| Conservation Action                                                                                                                                                                                                 | Category           | Biological Priority | Type     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|----------|
| Assess the extent and conservation implications of hybridization between Saltmarsh and Nelson's Sparrows in Maine, and identify marshes where hybridization pressure is low to prioritize for genetic conservation. | Species Management | moderate            | on-going |

## Threat(s) Addressed By This Conservation Action

- Problematic Native Species-Diseases

| Conservation Action                                                                                                                                                                                                                 | Category           | Biological Priority | Type |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|------|
| Develop a Maine-specific Saltmarsh Sparrow Conservation Plan. Focused conservation planning is critical to coordinate actions across agencies and prioritize marshes and management strategies based on vulnerability and bird use. | Species Management | critical            | new  |

## Threat(s) Addressed By This Conservation Action

- Habitat Shifting or Alteration

Saltmarsh Sparrow *Ammodramus caudacuta*

## Priority 1 SGCN



## Conservation Actions Associated with the Saltmarsh birds Guild:

| Conservation Action                                                                                                                                                                                                                                              | Category           | Biological Priority | Type |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|------|
| Prioritize conservation and restoration of high-value tidal marshes. Focus conservation efforts on the most important marshes for Saltmarsh Guild species, as identified by the Atlantic Coast Joint Venture (ACJV), to maximize impact and resource efficiency. | Habitat Management | critical            | new  |

## Threat(s) Addressed By This Conservation Action

- Other Ecosystem Modifications

| Conservation Action                                                                                                                                                                                                                                                               | Category        | Biological Priority | Type |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------|------|
| Secure opportunities for inland marsh migration. Collaborate with landowners and municipalities to preserve adjacent uplands and remove barriers to inland marsh migration, reducing the impacts of coastal squeeze and maintaining marsh function in the face of sea-level rise. | Public Outreach | high                | new  |

## Threat(s) Addressed By This Conservation Action

- Other Ecosystem Modifications
- Housing and Urban Areas

| Conservation Action                                                                                                                                                                                                                                                                                                                                                                  | Category           | Biological Priority | Type |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|------|
| Restore marshes using science-based best practices. Implement priority restoration techniques such as elevation enhancement, ditch remediation, and runneling, specifically tailored to each marsh, with Saltmarsh Guild species in mind. All restoration projects should incorporate pre- and post-restoration bird monitoring to evaluate efficacy and inform adaptive management. | Habitat Management | critical            | new  |

## Threat(s) Addressed By This Conservation Action

- Other Ecosystem Modifications

| Conservation Action                                                                                                                                                                                                                        | Category           | Biological Priority | Type |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|------|
| Address legacy impacts from past human modifications Identify and remediate historical hydrologic alterations (e.g., ditching, impoundments, fill) that have degraded tidal flow, vegetation communities, and nesting habitat suitability. | Habitat Management | high                | new  |

## Threat(s) Addressed By This Conservation Action

- Other Ecosystem Modifications

Saltmarsh Sparrow *Ammodramus caudatus*

## Priority 1 SGCN



| Conservation Action                                                                                                                                                                                                                                                                                                                                                                     | Category | Biological Priority | Type |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------|------|
| Prevent further habitat loss and fragmentation of tidal marshes by coordinating with regulators and municipalities to avoid development or infrastructure that compromises marsh integrity or increases flooding in key breeding areas. Develop and promote Best Management Practices (BMPs) that increase upland buffers, reduce human impacts, and facilitate inland marsh migration. | Policy   | high                | new  |

**Threat(s) Addressed By This Conservation Action**

- Domestic and Urban Waste Water
- Housing and Urban Areas
- Other Ecosystem Modifications

| Conservation Action                                                                                                                                                                    | Category           | Biological Priority | Type |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|------|
| Permanently protect critical habitat. Conserve remaining intact tidal marshes and adjacent uplands through acquisition, conservation easements, and other long-term legal protections. | Habitat Management | critical            | new  |

**Threat(s) Addressed By This Conservation Action**

- Other Ecosystem Modifications

| Conservation Action                                                                                                                                                         | Category           | Biological Priority | Type     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|----------|
| Manage invasive vegetation to enhance habitat structure - Suppress invasive species (e.g., <i>Phragmites australis</i> ) where they degrade nesting or foraging conditions. | Habitat Management | moderate            | on-going |

**Threat(s) Addressed By This Conservation Action**

- Invasive Non-native-Alien Species-Diseases

| Conservation Action                                                                                                                                                                                                                 | Category              | Biological Priority | Type     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------|----------|
| Advance collaborative coastal bird planning and monitoring. Participate in regional initiatives (e.g., SHARP, ACJV) to align conservation actions, share data, and prioritize sites most important for long-term species viability. | Survey and Monitoring | high                | on-going |

**Threat(s) Addressed By This Conservation Action**

- Lack of knowledge
- Habitat Shifting or Alteration

| Conservation Action                                                                                                                                                                                                                           | Category        | Biological Priority | Type |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------|------|
| Promote public and municipal engagement in saltmarsh conservation - Increase awareness and participation in saltmarsh stewardship by providing educational materials and technical assistance to landowners, towns, and coastal stakeholders. | Public Outreach | high                | new  |

**Threat(s) Addressed By This Conservation Action**

- Other Ecosystem Modifications

**Saltmarsh Sparrow** *Ammodramus caudatus***Priority 1 SGCN**

| Conservation Action                                                                                                                                                                                                                                                                                                                                                                                     | Category           | Biological Priority | Type |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|------|
| Support and collaborate with programs such as Maine DMR's CoastWise Initiative to remove undersized tidal restrictions and restore natural hydrology to impacted tidal marshes. Restoring hydrological function through culvert replacement and infrastructure redesign is critical for reversing decades of marsh degradation. These efforts should be paired with pre-and-post effort bird monitoring | Habitat Management | high                | new  |

**Threat(s) Addressed By This Conservation Action**

- Dams and Water Management-Use

**Broad Taxonomic Group Conservation Actions:**

Additional relevant conservation actions for this species are assigned within broader taxonomic groups in Maine's Wildlife Action Plan: Element 4.

**Habitat Based Conservation Actions:**

Additional conservation actions that may benefit habitat(s) associated with this species can be found in Maine's Wildlife Action Plan: Element 4. Click on the Habitat Grouping of interest to launch a habitat based report summarizing relevant conservation actions and associated SGCN.

*The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, threats, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work*