

# Grasshopper Sparrow *Ammodramus savannarum* (Gmelin, 1789)



(/media/grasshopper-sparrow/i95045.jpg)

*Ammodramus savannarum* (Grasshopper Sparrow)

Larry Master

## Class

Aves (Birds)

## Family

Passerellidae

## State Protection

Special Concern ⓘ

Listed as Special Concern by New York State: at risk of becoming Threatened; not listed as Endangered or Threatened, but concern exists for its continued welfare in New York; NYS DEC may promulgate regulations as to the taking, importation, transportation, or possession as it deems necessary.

## Federal Protection

Migratory Bird Treaty Act ⓘ

The Migratory Bird Treaty Act implements various treaties and conventions between the U. S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Under this Act, taking, killing, or possessing migratory birds, including nests or eggs, is unlawful unless specifically permitted by other regulations.

### State Conservation Status Rank

S3B ⓘ

Vulnerable in New York - Vulnerable to disappearing from New York due to rarity or other factors (but not currently imperiled); typically 21 to 80 populations or locations in New York, few individuals, restricted range, few remaining acres (or miles of stream), and/or recent and widespread declines. (A migratory animal which occurs in New York only during the breeding season.)

### Global Conservation Status Rank

G5 ⓘ

Secure globally - Common in the world; widespread and abundant (but may be rare in some parts of its range).

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# Summary

## Did you know?

There are 12 recognized Grasshopper Sparrow subspecies. Four of the 12 subspecies breed in North America, four reside in the Caribbean, and four are residents of Mexico, Columbia, and Ecuador (Vickery 1996).

## State Ranking Justification

There were 287 probable or confirmed blocks during the second New York State Breeding Bird Atlas (McGowan and Corwin 2008). Loss of farmland and development in New York has decreased the amount of suitable breeding habitat. Partners in Flight considers Grasshopper Sparrow a "Species of Continental Importance" for the United States and Canada (Rich et al. 2004).

## Short-term Trends

The distribution of the Grasshopper Sparrow has recently declined in New York as documented by the Breeding Bird Atlas and Breeding Bird Survey. There was a 42% decline in the number of atlas blocks where the species was detected from the first breeding Bird Atlas in 1980-1985 to the second in 2000-2005 (McGowan and Corwin 2008). The Breeding Bird Survey found a decline of 8.36% per year from 1966-2014 (Sauer et al. 2014). While Grasshopper Sparrows continued to be documented throughout most of the state, with the exception of high elevations, they were found in fewer blocks. Declines were less dramatic in the northeastern Great Lakes Plains in Jefferson County (McGowan and Corwin 2008).

## Long-term Trends

The long-term trends in the state are unknown. However, it is likely that grasshopper sparrows became increasingly abundant with the rise of agriculture in the state in the early 20th century.

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# Conservation and Management

## Threats

Habitat loss from declining agriculture in New York is likely the major cause of decline. The 42% decline in the distribution of Grasshopper Sparrows and the scale of agricultural loss in the state, indicate that the scope of this threat may be affecting a large percentage of the population (McGowan and Corwin 2008). The Breeding Bird Survey found a decline of 8.36% per year from 1966-2014 (Sauer et al. 2014). In addition, intense agricultural grassland management results in less suitable habitat for grasshopper sparrows in some of the remaining fields.

## Conservation Strategies and Management Practices

Disturbances, such as haying, during the breeding season from mid-April to late-August should be avoided. Mowing may be the preferred habitat management practice for Grasshopper Sparrows instead of burning or grazing (Bollinger 1988). Mowing should occur either several weeks before or after the breeding season (Whitemore 1981) and every 2 to 3 years (Bollinger and Gavin 1992). Bollinger and Gavin (1992) found that birds in New York preferred old hayfields that have not been reseeded for 10 years. Grazing may be an effective management strategy if grasses are tall. This allows for a patchwork of tall and short grasses (Whitemore 1981). However, grazing can also create less suitable habitat. Kantrud and Kologiski (1982) found that lightly grazed fields had the highest densities of Grasshopper Sparrows, while moderately grazed had moderate densities and heavily grazed fields had the lowest densities. Extensive grasslands should be managed in a patchwork system. Bollinger and Gavin (1992) suggested that management of larger areas in New York should include patches that are 10-15 hectares. The mosaic of grasslands should include different successional stages. Fragmentation appears to affect the return rate and nesting success of Grasshopper Sparrows (Balent and Norment 2003). Larger fields have a higher adult return rate, more fledgling per female, and more young fledged. Smaller fields may support immigrants rather than returning birds (Balent and Norment 2003).

## Research Needs

Additional research is needed to determine the best management strategies for Grasshopper Sparrows and other grassland birds to maximize grassland bird diversity in New York. Researchers have noted that a large portion of grassland bird research has taken place in western states, noting that natural prairie habitat has different vegetative characteristics compared to the hayfield habitats that are more typically used in the east (Bollinger 1995). Additional data are needed to understand grassland bird source-sink dynamics in the northeast.

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## Habitat

### Habitat

Habitat preferences include open grasslands with some bare areas (Bollinger 1995, Whitemore 1981) that are typically far from cultivated fields, fence lines, and woods (Wiens 1969). In New York, Bollinger (1995) found Grasshopper Sparrows most frequently in old, grass-dominated hayfields with litter cover that he described as shorter, sparser, and patchier. Nests are hidden in grass.

## Associated Ecological Communities

- Cropland/field crops ⓘ

An agricultural field planted in field crops such as alfalfa, wheat, timothy, and oats. This community includes hayfields that are rotated to pasture.

- Pastureland ⓘ

Agricultural land permanently maintained (or recently abandoned) as a pasture area for livestock.

- Successional old field ⓘ

A meadow dominated by forbs and grasses that occurs on sites that have been cleared and plowed (for farming or development), and then abandoned or only occasionally mowed.

## Associated Species

- Savannah Sparrow (*Passerculus sandwichensis*)
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## Range

### New York State Distribution

Grasshopper Sparrows are found in open, grassy areas throughout most of New York State except higher elevations (generally above 2000 ft), such as the Adirondacks and Catskills. Highest concentrations are found in the northeastern Great Lakes Plain (Jefferson County).

### Global Distribution

Breeding Grasshopper Sparrows are found in eastern Washington, southern British Columbia, southern Alberta, southern Saskatchewan, southern Manitoba, southern Ontario, southwestern Quebec, northern Vermont, New Hampshire, and southern Maine south to southern California, central Nevada, northern Utah, eastern Colorado, eastern New Mexico, northern Texas, Arkansas, northern Mississippi, Alabama, Georgia, North Carolina, and southeastern Virginia; from southeastern Arizona, southwestern New Mexico, and southern Texas south to northern Sonora and northern Chihuahua; and in central Florida (Vickery 1996, AOU 1998). The main population is in the Great Plains, from North Dakota south to northern Texas, and east to Illinois (Johnson et al. 1998). The non-breeding range includes central California, southern Arizona, southern New Mexico, Texas, central Missouri, Tennessee, and North Carolina south through Mexico and Central America to northern Costa Rica and in the Bahamas and Cuba (Vickery 1996, AOU 1998). Year round residents are found in Veracruz, Chiapas, Guatemala, Belize, Honduras, northwestern Costa Rica, and Panama; Jamaica, Hispaniola, and Puerto Rico; and in western Colombia, western Ecuador, and the Netherlands Antilles (Vickery 1996, AOU 1998).

## Best Places to See

- grasslands of Jefferson County (Jefferson County)
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## Identification Comments

### Identifying Characteristics

Adults: Grasshopper Sparrows are small, with a long bill and proportionally large, flat head, and a complete white eye ring. Birds are gray-brown above and the breast is unmarked buffy. The crown is dark with a pale central stripe. The tail is short and slightly rounded. Sibley (2000) describes northern birds with an "intricate pattern of rufous spots" on the wings and a buffy face with a dark spot on the rear auriculars. Sexes are similar. Juveniles are similar to adults except for a band of streaks on the breast.

The song is described as one or two high notes followed by a grasshopper-like buzz. Flight song is a series of short, buzzy note. The call is a double or triple ticking note. Both males and females sing.

Nests are cup-shaped and made of grasses that are well hidden on the ground. Typically, a dome is made over the nest with overhanging grasses.

Eggs are white with light, reddish-brown speckles. The clutch size ranges from three to six eggs.

### Best Life Stage for Proper Identification

Adult.

### Behavior

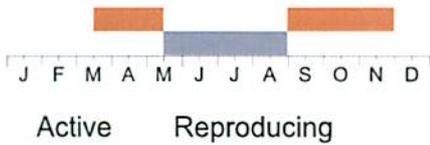
When females leave their ground nest, they hop away from it before taking flight. If they are flushed from the nest, they hop a short distance from the nest and feign injury as a distraction. Both males and females sing. Males tend to sing away from the nest (Vickery 1996).

### Diet

Grasshopper Sparrows typically eat insects, especially grasshoppers, and seeds.

## Best Time to See

Grasshopper Sparrows are most easily found during the breeding season from late May through July when they remain on territories and males can be heard singing. Migrants are rarely found before late April and after October in New York.



The time of year you would expect to find Grasshopper Sparrow active and reproducing in New York.

## Similar Species

- Henslow's Sparrow (*Ammodramus henslowii*) ([guide\(/henslows-sparrow/\)](#)) ⓘ

Henslow's Sparrows have an olive-ish face and a double malar stripe. They also prefer wetter grassland habitats.

- Savannah Sparrow (*Passerculus sandwichensis*) ⓘ

Savannah Sparrows have streaked breasts.

## Grasshopper Sparrow Images



## Taxonomy

*Ammodramus savannarum* (Grasshopper Sparrow)

Larry Master

Grasshopper Sparrow,

*Ammodramus savannarum* (Gmelin, 1789)

(/media/grasshopper-sparrow/i95045.jpg)

**Kingdom** Animalia

**Phylum** Craniata

**Class** Aves (Birds)

**Order** Passeriformes (Perching Birds)

**Family** Passerellidae

## Additional Resources

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## Links

- Google Images(<http://images.google.com/images?q=AMMODRAMUS+SAVANNARUM>)
- NatureServer Explorer(<http://natureserve.org/explorer/servlet/NatureServe?searchName=AMMODRAMUS+SAVANNARUM>)

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## About This Guide

This guide was authored by: Hollie Y. Shaw

Information for this guide was last updated on: March 27, 2014

Please cite this page as:

New York Natural Heritage Program. 2020. Online Conservation Guide for *Ammodramus savannarum*. Available from: <https://guides.nynhp.org/grasshopper-sparrow/>. Accessed April 1, 2020.

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