

North Carolina Partners in Flight Conservation & Management Fact Sheet: Bachman's Sparrow (*Aimophila aestivalis*)

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The Bachman's Sparrow is a member of the family Emberizidae, the Sparrows and Towhees. The family includes 49 species in North America, of which 30 have been observed in North Carolina. The genus *Aimophila* includes six species in North America, although Bachman's Sparrow is the only member of the genus that occurs in North Carolina. As a group, sparrows represent an identification challenge, because many of them are similarly marked with streaks of brown and are rather shy, providing observers with only brief glimpses before the birds hide in the vegetation.

Description

Bachman's Sparrow is a relatively large sparrow. Its back is streaked with gray, chestnut-brown, and black. The breast and flanks are buffy, becoming paler (nearly white) on the belly. Although the breast is unstreaked, there are small streaks on the sides of the breast. It lacks wing bars. The head has a rusty brown crown stripe and eye line, with gray on the sides of the head.

In North Carolina, inexperienced observers are most likely to confuse Bachman's Sparrow with other sparrows

that have an unstreaked breast, particularly Swamp Sparrows in winter. Aside from habitat differences (which are pronounced: Swamp Sparrows prefer wet meadows and marshes, whereas Bachman's Sparrows prefer open pine woodlands – see below), they can be distinguished by differences in coloration. Swamp Sparrows have a brighter rufous coloration on their wings and back and grayer underparts, while the colors of Bachman's Sparrows are more muted, and more buffy below.

Bachman's Sparrow can be separated from other sparrows with an unstreaked breast by the lack of a white eye ring (found in Field Sparrows and Grasshopper Sparrows) and the lack of white wing bars (found in Chipping Sparrows).

Voice

Although individual Bachman's Sparrows sing several song types, there are characteristics of the song which make identification straightforward. In particular, the song phrasing is similar across several song types. These "typical" songs include an introductory whistle (described as sweet in quality by Rising 1996) followed by a trill on a

different pitch. Peterson (1980) depicts the song as “seeee slip slip slip slip slip”

Range

Bachman's Sparrows are found across the Southeast, from central Florida, north to Virginia, west to Missouri, and south to Texas (see Fig. 1). The species spread north (to occupy areas ranging from Pennsylvania to Illinois) in the late 1800s and early 1900s as a result of agricultural development. However, successional changes in those areas in subsequent years have resulted in a contraction of the species' range (Dunning 1993), so that it is now rare north of North Carolina. In North Carolina, Bachman's Sparrows are currently found in the Coastal Plain, particularly in the southern parts of this physiographic area, within the zone dominated by longleaf pine (*Pinus palustris*) forests.

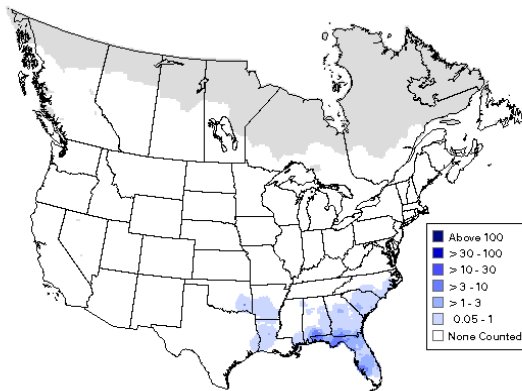


Figure 1. Distribution map for Bachman's Sparrows. From Breeding Bird Survey data from 1994-2003 (Sauer et al. 2005).

Conservation Status

Information provided by Birdlife International (2004) has led the International Union for the Conservation of Nature (IUCN) to designate Bachman's Sparrow as “near

threatened”, due primarily to habitat loss and habitat degradation. Breeding bird survey data indicate that the species has experienced declines over large portions of its breeding range, particularly west of the Mississippi, and in Florida and Georgia. In North Carolina, declines are reported in the central coastal plain and increases are reported in the southern piedmont and southern coastal plain (see Fig. 2). However, the species has not been reported from the North Carolina piedmont in the past few years (H. LeGrand, pers. comm.)

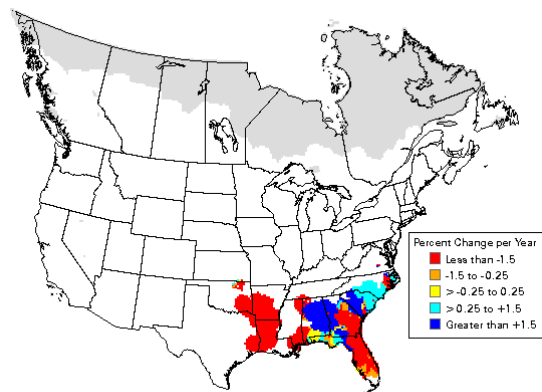


Figure 2. Trend map for Bachman's Sparrows. From Breeding Bird survey data collected between 1966 and 2003 (Sauer et al. 2005).

Habits

Male Bachman's Sparrows are consummate songsters, singing from exposed perches within their territories throughout the day. Hearing a Bachman's Sparrow will undoubtedly add to the pleasure of visiting open pine woodland. Despite this rather showy aspect of their behavior, they can be a challenge to observe, and females tend to remain in dense cover at all times. When approached, male Bachman's Sparrows will drop from their song perch into dense cover, and then they

prefer to run farther away, flying only as a last resort.

Habitat

Bachman's Sparrows are closely tied to open longleaf pine woodlands. As this habitat has been lost, the species has declined, as is the case with other birds that rely on this habitat, such as Red-cockaded Woodpeckers (*Picoides borealis*) and Brown-headed Nuthatches (*Sitta pusilla*). Within this habitat, Bachman's Sparrows prefer areas with a dense cover of grasses, particularly *Andropogon* and *Aristida* (Dunning 1993; Haggerty 1998). These characteristics are more likely to be found within a few years of a burn, and so this species depends on regular fire to provide its required habitat. Interestingly, the northward expansion of a century ago involved birds that occupied overgrown fields that had been pastures, a habitat type in which birds are still found, although rarely anymore.

Management Recommendations

Although Bachman's Sparrows have benefited from management targeted at Red-cockaded Woodpeckers, the sparrows differ from the woodpeckers in some details of habitat preference, and so benefit from management practices that are targeted at their particular ecological needs (Plentovich et al. 1998). In particular, Bachman's Sparrows benefit from a more-frequent burn cycle than is necessary for the woodpeckers (Plentovich et al. 1998; Tucker et al. 1998; White et al. 1999). The sparrows increase for up to three years following a burn (Johnson and Landers 1982) and are less numerous in sites that have not been burned for seven or more years (Dunning and Watts 1990; Haggerty 1998). Moreover, the sparrows are less tolerant of practices that mimic burns without fire, in other words, mechanical removal of ground level vegetation is less effective than burning in providing adequate habitat (Dunning and Watts 1990).

Summary of Recommendations

- Prescribed burns at 3-5 year intervals (Dunning and Watts 1990; Tucker et al. 1998), although 3 years may be most beneficial (Johnson and Landers 1982).
- Prescribed burns during the growing season may be particularly effective (Tucker et al. 1998; but see King et al. 1998).
- Thinning young trees in mature pine stands may permit sparrows to persist (Haggerty 1986, cited in Dunning 1993).
- Areas that are clearcut should then be burned, as this will stimulate growth of the grasses that Bachman's Sparrows need (Dunning 1993); other practices, such as wind-rowing, roller-chopping, or drumchopping delay the growth of grasses and thereby inhibit sparrow recovery (Dunning 1993; Dunning and Watts 1990).

Acknowledgements

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