Ammodramus henslowii Audubon

Henslow's sparrow



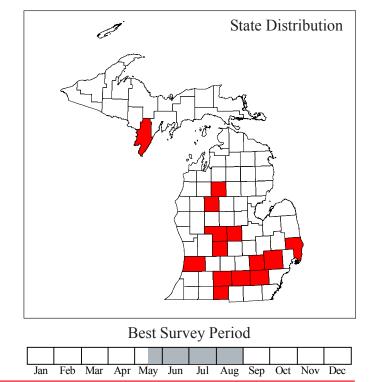
Status: State threatened

Global and state rank: G4/S2S3

Family: Emberizidae (New World sparrows, towhees)

Total range: Two subspecies are recognized, *A. h. henslowii,* the western form, and *A. h. susurrans,* the eastern form. The western Henslow's sparrow breeds from eastern South Dakota, southern Minnesota through Wisconsin and Michigan into southern Ontario, south to central Kansas, northeastern Oklahoma, central Missouri, Illinois, Kentucky, and central West Virginia. The eastern Henslow's sparrow breeds from northern New York, Vermont, New Hampshire, and northeastern Massachusetts, south to extreme western W. Virginia, eastern Virginia and east-central North Carolina (AOU 1957). Local populations of a possible third subspecies exist in eastern Texas (Brewer et al. 1991).

State distribution: In Michigan, Henslow's sparrows were considered uncommon in the early part of the 1900's. In fact, the first documented record was in 1881 (Brewer et al. 1991). As clearing intensified, Henslow's sparrow populations increased in the southern counties of Michigan. Northward expansion of the species has continued throughout the 20th Century. Upper Peninsula observations were first recorded in



1959 (Dodge 1961). Michigan has Henslow's sparrow records in 14 counties, including Menominee county in the UP (Brewer et al. 1991, Michigan Natural Features Inventory 2001, Ewert 1999). The Nature Conservancy has designated an area near Marion, MI as an Important Bird Area for the Henslow's sparrow. Another location with concentrations of the species is the Allegan State Game Area (Ewert 1999). It should be noted, however, that the species has recently declined dramatically in many southern counties. This decline is due in large part to changes in the amount and suitability of habitat (Brewer et al. 1991).

Recognition: The Henslow's sparrow is among the smallest (4.75-5.25 in.) of sparrows. In adults the sexes are alike. The **large flat head**, **large gray bill** and **short tail** are characteristic. The **head**, **nape**, and **most of the central crown stripe are olive-colored**. The **wings are a dark chestnut color**. The **breast is finely streaked** (Smith 1992). The olive head and chestnut wings are diagnostic. Juvenile birds are clay-colored above and streaked with black on the back and head (Roberts 1949). Due to its timid nature, Henslow's sparrows are more likely to be heard than seen. When flushed, birds will often run instead of fly. Even in flight, Henslow's sparrows fly low and quick over the grass in a drooping, zigzag fashion. It has an ordinary, two-syllable song that is quite weak and fine. It is often



represented as tsee-wick (Roberts 1936).

Best survey time: The best survey time for Henslow's sparrow in Michigan begins during late April and continues through mid-September. Survey time for breeding birds is best between mid-May and late August.

Habitat: Henslow's sparrow is an obligate grassland species. Historically, in the Midwest and Great Plains regions, Henslow's sparrows would breed in tallgrass prairie with some forbs and shrubs. Today, they are restricted to neglected grassy fields, pastures and meadows with a scattered shrub presence, and hayfields with dense cover (Whitney et al. 1978, Johnsgard 1979). They are often found in damp/moist low-lying locations, but can also be found in drier habitats. Regardless of location and type of grassland, the breeding habitat of these birds have several necessary features: tall, dense grass; a well-developed litter layer; standing dead vegetation; available perches; and little to no woody vegetation (Pruitt 1996). Habitat size also is extremely important to Henslow's Sparrows. Herkert (1994) reports that habitat area is the most important factor influencing Henslow's sparrow numbers. They are rarely encountered in grasslands <250 acres in size.

Biology: Henslow's sparrows are short distance migrants with summer and winter ranges within the United States and Canada. Most begin their spring migration north in early March. Interestingly, the earliest arrival dates in Michigan are April 8th in Ann Arbor and April 11th in Battle Creek (Wood 1951). By late April to early May they have reached the breeding range.

Male Henslow's sparrows are in song upon arriving at the breeding grounds (Graber 1968). The species breeds in loose colonies with territories selected by males soon after spring arrival. Individual territories are on average 0.8 acres in size (Robins 1971). The courtship period culminates in a monogamous pair. The female, almost exclusively, builds the nest. Nests are cup-shaped and are made of coarse grass, dead weed leaves and lined with finer grasses and sometimes hair. Material is gathered near the nest site. The nest building process is completed in 4 to 5 days (Graber 1968). Nests are always well concealed and placed near or on the ground located above the base of a dense clump of grass. They are usually attached to stems that arch over the nest creating a partial roof (Graber 1968). In Michigan's southern counties, egg laying starts in mid May (Wood 1951), while in the northern part of the state early June is more likely. Average clutch size for Henslow's sparrows is 3 to 5 eggs, which are incubated by the female only (Smith 1992). The incubation period begins with the last egg laid and lasts approximately 11 days. Young Henslow's sparrows remain in the nest 9-10 days after hatching. The female makes most of the feeding trips during the nestling period, with the nestling diet consisting mainly of grasshopper and butterfly larvae (Robins 1971). Since Henslow's sparrows usually raise two broods during the breeding season, nesting can continue into late August (Hyde 1939).

In Michigan, Henslow's sparrows usually begin southern migration by late September and are usually absent from the state by mid October. Stragglers have been reported as late as October 24th in Jackson County and October 25th in Oakland County (Wood 1951). They return to their wintering locations in the Gulf and Atlantic coast states.

Conservation/management: Henslow's sparrow populations have been declining throughout their range, including drastic declines in the Midwest. Illinois estimates a 94% decline in Henslow's sparrow numbers in the last 40 years (Drilling 1985). The species has been on the National Audubon Society's Blue List since 1974 (Arbib 1979). The U.S. Fish and Wildlife Service has identified Henslow's sparrow as a migratory nongame bird of management concern for Region 3, which includes Michigan (U.S. Fish and Wildlife Service 1987). Henslow's sparrow is now listed as endangered or threatened in 12 states and listed as a special concern species in another four (Pruitt 1996). Michigan now lists the Henslow's sparrow as threatened due to the markedly evident population decline in the state. For example, Kalamazoo County has documented an 80% decline in Henslow's sparrow numbers since surveys began in 1970 (Adams et al. 1981).

The major factor causing Henslow's sparrow population declines is habitat loss (Hands et al. 1989). Changes in agricultural practices, especially in the Midwest, from hay production and grazing to specialized crop production account for a significant portion of this loss in breeding habitat (Drilling 1985). However, other threats



to Henslow's sparrows also contribute to population declines. Urbanization and fragmentation of suitable habitat into smaller and disjunct parcels are affecting populations. Untimely or regular mowing or grazing activity has been shown to reduce population densities too (Herkert 1994). Encroachment or succession by woody vegetation will eventually preclude Henslow's sparrows use of a suitable habitat (Smith 1992). Although tolerance levels to woody vegetation by the species are still inconclusive, estimates of 5% maximum in grassland areas is considered acceptable (Sample and Mossman, 1997). Threats are also present on the wintering grounds. Such threats include reduction or exclusion of fire management practices on southern grasslands, habitat conversion to row crops or plantation, drainage, and urbanization (Pruitt 1996).

Many management options exist to help with Henslow's sparrow population stabilization in Michigan. Three of the most frequently recommended management tools are burning, mowing, and grazing. Periodic burning is necessary to maintain grasslands. However, prescribed burns of Henslow's sparrow habitat should be scheduled in late fall (October and November) in order to keep the burn outside the breeding season (Herkert et al. 1993). Also, entire areas of suitable habitat should not be burned in one season. Henslow's sparrows are usually absent from areas during the first growing season following a fire as leaf litter and herbaceous cover is significantly diminished. Breeding numbers during the second growing season and beyond are consistent with pre-burn densities (Winter 1998). Instead, a rotational burn disturbance regime should be implemented where possible (Zimmerman 1988). Evidence suggests that Henslow's sparrows will nest in hayfields mowed every year (Illinois Natural History Survey 1983), as long as the mowing is done after the breeding season concludes. Grazing is occasionally used as a substitute for mowing. The likelihood of nest, egg, and young destruction by mowing is greatly reduced (Pruitt 1996). However, grazing pressure must be routinely monitored to ensure adequately tall and dense vegetation. Another management recommendation is to provide >75 acres of contiguous grassland if possible. Otherwise, provide a complex of small units located near each other to allow for colonization (Mazur 1996). Removal of encroaching woody vegetation is periodically necessary to prevent conversion of old fields to forest (Drilling 1985). Restriction of insecticide application practices within

suitable Henslow's sparrow habitat will protect the prey base (Hands et al. 1989). Finally, incentive programs for landowners involving grassland restoration or maintenance would be beneficial to the continued success of Henslow's sparrows in Michigan (Brewer et al. 1991).

Research needs: Documentation of Henslow's sparrow occurrences, on all existing public and private managed areas, is an extremely high priority. Train land managers to identify the species and recognize suitable Henslow's sparrow habitat. Annual monitoring of all populations in Michigan occurring on preserves must be initiated. Identification and characterization of habitats in Michigan will assist in monitoring projects. Additional study is required to determine site and mate fidelity, annual mortality and reproductive success rates. Studies involving effects of frequency and timing of burns, mowing, and grazing on existing populations is also necessary. Finally, documentation of effects of habitat size and fragmentation on Michigan's Henslow's sparrow population must also be considered (Smith 1992).

Related abstracts: lakeplain wet-mesic prairie, mesic prairie, prairie drop-seed, rough fescue, eastern prairie fringed orchid, grasshopper sparrow, dickcissel, western meadowlark, short-eared owl, northern harrier.

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