Research on CRP Land in Southern Illinois

Current Breeding Bird Survey (BBS) data identified southern Illinois as supporting a growing population of Henslow's Sparrows. However, increasing population numbers does not necessarily imply a stable population. At this point, knowledge of reproductive success is limited and thus this area could be an ecological trap, a site that appears suitable for nesting, but is really a poor area for reproducing. Predation and brood parasitism may also result in reproductive failure. Preliminary results from a study conducted by James Herkert suggest the number of perches and the proximity of woody plants are positively correlated to the levels of parasitism and unsuccessful nesting (per. com. J. Herkert). Furthermore, predation rates increased in fields surrounded by forest.

To gather more information, I investigated Henslow's Sparrow occupancy of CRP fields in the southern 11 counties of Illinois. I selected 32 CRP fields of approximate age (>4 years) as study sites. My study sites ranged in size from 10 ha to >100 ha, on which I found 480 singing males. Henslow's Sparrows were more abundant in the larger fields, though they also occurred in small fields. Through vegetation analysis, I found that a threshold of 40-50 cm in height is necessary to elucidate nesting.

It is also important to identify what species of grasses the Henslow's Sparrow prefers. Native prairie grasses on CRP fields were extremely rare. The most common grasses on occupied sites were Kentucky Bluegrass (*Poa pratensis*), Orchard Grass (*Dactylis glomerata*), and Broom Sedge (*Andropogon virginicus*).

Implication of CRP Land in Conservation

The CRP holds potential benefits for the Henslow's Sparrow, as well as other species of grassland inhabitants. A study conducted by James Herkert (1997) revealed that recent Henslow's Sparrow population trends were significantly greater in Illinois counties with a high enrollment in the CRP, as compared to those counties with low enrollment. His study suggests that the CRP has benefitted the Henslow's Sparrow populations in Illinois.

Several factors concerning CRP fields are crucial in determining Henslow's Sparrow occupancy. The fields must be over four years in age to establish the necessary composition of preferred grasses to ensure Henslow's Sparrow occupancy. The landscape matrix surrounding CRP fields may reduce the risk of nest predation. Periodic habitat management is necessary to reduce woody invasion. Mowing may be implemented for management, though it should occur after the breeding season has concluded.

It is important to identify a species' habitat requirements and population demographics to establish a general, large-scale management plan. Information on vegetation structure and composition can also help in determining restoration projects for avian species.

More information concerning the suitability of CRP land as breeding habitat for the Henslow's Sparrow, as well as other grassland birds, is necessary to determine its worth as a management plan for wildlife.

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