



photo by Mary Leigh

WHITEWATER CANYON SURVEY

of nesting grassland birds in 2022-2024

WHITEWATER CANYON SURVEY OF NESTING GRASSLAND BIRDS 2022-2024

Summary submitted by Bob Walton

From 2022 through 2024, 6 sites in the restored prairie grassland areas of Whitewater Canyon were surveyed weekly from mid-May through early July. Each site was monitored utilizing binoculars for approximately 10 minutes, with special emphasis on identifying nesting grassland “species of concern.” Special attention was given to locating nesting Henslow’s Sparrows, Grasshopper Sparrows, Bobolinks, and Sedge Wrens. All observations were generally documented between 7:00 am and 8:30 am on the survey day.

Description of survey sites: (the attached map has sites indicated)

Site 1: Gate Post Parking Lot—site is bordered on the east by the main parking lot and contains a thick stand of restored prairie which extends to the north and west. This site was burned in the spring of 2024.

Site 2: CRJB Family Bench—site is located approximately ¼ mile straight west of Site 1 and is at the intersection of hiking trails. The vegetation is predominately restored prairie grass with forbes and has a medium number of invasive trees and shrubby plants. This site was burned in the spring of 2024.

Site 3: 2nd Bluebird house on Stream Bottom Trail—site is located north of the other sites and has a narrow band of restored prairie adjacent to woodlands on both sides of the trail. This site was burned in the spring of 2024.

Site 4: Astronomical Post, off trail—site is directly south of the trail and has a food plot on its west side, and the prairie on the east side was burned in the spring of 2023.

Site 5: Where terrace meets path—site is approximately ¼ mile south on the same trail as Site 4 and is where an old terrace meets the trail. Vegetation includes restored prairie grass with some sumac and tree invasion. There is a pollinator mix of prairie forbes planted here.

Site 6: Bluebird House #9—this site is located approximately ¼ mile west of Site 2 on the Overlook Trail. It is surrounded by a mature stand of restored prairie with some invasion of sumac and trees.

Listing of observers:

A total of 24 visits were made to the survey sites by the following members of the Dubuque Audubon Society: Bob Walton, Sandy Walton, Jim Oleson, Ken Kiss, Tony Moline, and Mary Leigh. Other survey participants were Paul Winer and CeCe Brown.

Summary of past and present management of the grasslands:

When the Whitewater Canyon property was purchased in 2006 by the Dubuque County Conservation Board, the majority of the surveyed area had been cropland of corn, alfalfa, and oats that was converted to a CRP mixture of brome grass, bird’s-foot trefoil, and alfalfa, with a small amount of prairie grass and forbes. Since the purchase, the Conservation Board has made yearly plantings of tall grass prairie and forbes to convert the entire area to prairie, thus providing better habitat for grassland birds.

The primary objective has been to maintain the existing grasslands with a maximum diversity of prairie grasses and forbes. To encourage a diversity of wildlife, the Dubuque County Conservation Board instigated a management plan that involves a rotational burning of approximately 1/3 of the prairie

grasslands each year. With rotational burning, the invasion of undesirable trees can be eliminated, and the diversity and density of the grasslands will promote grassland wildlife.

Yearly totals of Grassland “Species of Concern” documented:

YEAR SURVEYED	Bobolink	Henslow’s Sparrow	Grasshopper Sparrow	Sedge Wren
2022	0	10	2	1
2023	0	18	2	5
2024	10	20	12	7
Totals:	10	48	16	13

Conclusions from the 3-year study of Grassland “Species of Concern” at Whitewater Canyon:

Throughout the 3 years of observation, the current management strategy of burning approximately 1/3 of the prairie each year has resulted in a stable population of the main “species of concern” grassland birds, especially the Henslow’s and Grasshopper Sparrows.

The year 2022 was a devastating year for all the grassland birds, due to the inadvertent mowing, in early June, which destroyed the nesting habitat of all the grassland birds. Three pair of Henslow’s Sparrows re-nested in several small islands of grassland and sumac that were missed by the mower. These represented the only successful hatch for the four main “species of concern” that were studied.

In April of years 2023 and 2024, rotational burning was reestablished, resulting in steady increases in numbers of grassland birds studied.

The following conclusions may be drawn for each of the primary species documented:

- Bobolinks—returned, with several pairs nesting in the April burned portions of the prairie in 2024. They seemed to be attracted to the shorter vegetation with no litter accumulation. The Bobolinks were observed in Sites 3 and 5.
- Henslow’s Sparrows—excellent numbers of nesting Henslow’s were all located in the unburned sections of prairie, particularly the 3-year-old stands that had lots of prairie grass litter and scattered shrubby growth of sumac and multiflora rose. They were observed in the greatest numbers at Site 6, with good numbers at Sites 4 and 5.
- Grasshopper Sparrows—good numbers of Grasshopper Sparrows were observed in the recently burned sections of prairie and in the shorter grasses surrounding the parking lot. They were observed most commonly in the recently burned sections of Sites 1 and 2.
- Sedge Wrens—these small wrens were all observed in the moist areas near the bases of the two field terraces, southeast of Site 2 and 100 yards east of Site 2.

Additional grassland birds found in good numbers included Dickcissels (63 were counted on the last count in July of 2024), Common Yellowthroats (high numbers at all sites), American Goldfinches, Field Sparrows, Eastern Meadowlarks, Eastern Kingbirds, Red-winged Blackbirds, Song Sparrows, Vesper Sparrows, Chipping Sparrows, Savanna Sparrows, and Ring-necked Pheasants.

Future management suggestions:

Continue prescribed burns of approximately 1/3 of the restored prairie each year. This practice seems to eliminate undesirable trees and provides for a maximum diversity of prairie grasses and forbes needed for nesting birds.

Complete list of birds observed from the survey sites:

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| 1. American White Pelican | 32. Ruby-throated Hummingbird | 63. Gray Catbird |
| 2. Least Bittern | 33. Belted Kingfisher | 64. Brown Thrasher |
| 3. Great Blue Heron | 34. Red-headed Woodpecker | 65. European Starling |
| 4. Turkey Vulture | 35. Red-bellied Woodpecker | 66. Cedar Waxwing |
| 5. Canada Goose | 36. Downy Woodpecker | 67. Blue-winged Warbler |
| 6. Wood Duck | 37. Northern Flicker | 68. Yellow Warbler |
| 7. Mallard | 38. Pileated Woodpecker | 69. American Redstart |
| 8. Osprey | 39. Eastern Wood-Pewee | 70. Common Yellowthroat |
| 9. Bald Eagle | 40. Willow Flycatcher | 71. Yellow-breasted Chat |
| 10. Northern Harrier | 41. Least Flycatcher | 72. Scarlet Tanager |
| 11. Cooper's Hawk | 42. Eastern Phoebe | 73. Eastern Towhee |
| 12. Red-tailed Hawk | 43. Great Crested Flycatcher | 74. Chipping Sparrow |
| 13. American Kestrel | 44. Eastern Kingbird | 75. Field Sparrow |
| 14. Merlin | 45. Bell's Vireo | 76. Vesper Sparrow |
| 15. Ring-necked Pheasant | 46. Yellow-throated Vireo | 77. Savanna Sparrow |
| 16. Wild Turkey | 47. Warbling Vireo | 78. Grasshopper Sparrow |
| 17. Gray Partridge | 48. Red-eyed Vireo | 79. Song Sparrow |
| 18. Chukar | 49. Blue Jay | 80. Northern Cardinal |
| 19. Killdeer | 50. American Crow | 81. Rose-breasted Grosbeak |
| 20. Lesser Yellowlegs | 51. Horned Lark | 82. Indigo Bunting |
| 21. American Woodcock | 52. American Tree Sparrow | 83. Dickcissel |
| 22. Ring-billed Gull | 53. Barn Swallow | 84. Bobolink |
| 23. Rock Dove | 54. Black-capped Chickadee | 85. Red-winged Blackbird |
| 24. Mourning Dove | 55. Tufted Titmouse | 86. Eastern Meadowlark |
| 25. Eurasian Collared-Dove | 56. White-breasted Nuthatch | 87. Common Grackle |
| 26. Black-billed Cuckoo | 57. House Wren | 88. Brown-headed Cowbird |
| 27. Yellow-billed Cuckoo | 58. Sedge Wren | 89. Orchard Oriole |
| 28. Great Horned Owl | 59. Blue-gray Gnatcatcher | 90. Baltimore Oriole |
| 29. Barred Owl | 60. Eastern Bluebird | 91. House Finch |
| 30. Short-eared Owl | 61. Wood Thrush | 92. American Goldfinch |
| 31. Chimney Swift | 62. American Robin | 93. House Sparrow |