



Grasshopper Sparrow numbers increased after removal of woody vegetation at Bartel Grassland.

Matt Fletcher took this photo of a Grasshopper Sparrow 3 June 2007 at Illinois Beach State Park, Lake County.

nine species in just one year of the study (Table 1). Eight of the nine species recorded in just one year were observed only in 2001, the year prior to the tree row removal. Overall, across all three years, bobolinks were the most common species at the site accounting for 45.7%

of all observations, followed by Savannah Sparrow (17.9%), Eastern Meadowlark (6.9%), Grasshopper Sparrow (6.6%) and American Goldfinch (4.1%).

In terms of changes in total abundance in the years before and after the tree removal, bobolinks,

savannah sparrows, grasshopper sparrows, and brown-headed cowbirds showed the greatest population changes. Bobolink numbers at the site changed the most of any species, increasing from 55 total birds in 2001, prior to the tree removal, to an average of 68 birds/year for the

Species	Total Number of Individuals Observed			Average Number Observed 2002-2003	Total Number of Individuals Observed 2001-2003		Illinois BBS Population Trend (1966-2003)	
	2001	2002	2003		No.	(R.A.)	(%/year)	Probability
<u>Increasesers</u>								
American Goldfinch	3	12	2	7.0	17	(4.1%)	-0.2	0.79
Bobolink	55	70	66	68.0	191	(45.7%)	-9.4	0.00
Dickcissel	0	3	0	1.5	3	(0.7%)	-3.2	0.00
Field Sparrow	2	4	3	3.5	9	(2.2%)	-2.8	0.00
Grasshopper Sparrow	4	14	10	12.0	28	(6.6%)	-7.4	0.00
Henslow's Sparrow	4	5	6	5.5	15	(3.6%)	-14.0	0.01
Red-winged Blackbird	1	4	4	4.0	9	(2.2%)	0.0	0.93
Savannah Sparrow	19	27	29	28.0	75	(17.9%)	-6.9	0.01
Song Sparrow	3	4	5	4.5	12	(2.9%)	-0.3	0.51
<u>Decreasers</u>								
American Crow	5	0	0	0.0	5	(1.2%)	0.8	0.24
Brown Thrasher	2	0	0	0.0	2	(0.5%)	-0.8	0.00
Brown-headed Cowbird	7	0	0	0.0	7	(1.7%)	1.3	0.01
Common Grackle	1	0	0	0.0	1	(0.2%)	0.6	0.45
Common Yellowthroat	2	0	0	0.0	2	(0.5%)	-0.6	0.17
Eastern Kingbird	2	0	2	1.0	4	(1.0%)	-1.3	0.04
Eastern Meadowlark	10	6	13	9.5	29	(6.9%)	-2.2	0.00
House Wren	2	0	0	0.0	2	(0.5%)	1.3	0.04
Mourning Dove	1	0	0	0.0	1	(0.2%)	0.8	0.10
Northern Cardinal	2	1	0	0.5	3	(0.7%)	0.5	0.15
Tree Swallow	3	0	0	0.0	3	(0.7%)	5.9	0.07

TABLE 1. Breeding bird abundance at the Bartel Grasslands area in Cook County between 2001-2003. Numbers represent the total number of birds observed at the site at seven census points located on tree lines that were removed between the 2001 and 2002 breeding seasons and seven points located in open areas away from any trees. Species are grouped based on their response to tree removal at the site. "Increasesers" are species whose mean abundance after tree removal (2002-2003) was greater than their pre-removal abundance (2001) and "decreasers" were species whose average abundance after tree removal was lower than their pre-removal abundance. Species long-term Illinois population trends are also shown. Population trend data are from the North American Breeding Bird Survey and are expressed in terms of percent per year population change. The statistical significance of each population trend is also shown (probability).