

**An Assessment of Birds of Scientific and Natural Areas and  
Prairie Bank Parcels, located within the Red River Prairie and Tallgrass  
Aspen Parkland provinces of Northwest Minnesota**



**Final Report – 1 March 2006**

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## **Brief Description of the Project.**

This project was designed to assimilate existing data, and to gather additional data concerning birds present on Scientific and Natural Areas (SNA's), and Prairie Bank parcels (PB's) located within the Red River Prairie, and Aspen Parklands ecological subsections of Minnesota. This information was compiled in a number of spreadsheets, and the SNA information has been made available on the DNR web-site.

Northwest Minnesota harbors a diverse set of avifauna, and 66 % of **the Species of Greatest Conservation Need** recently defined in Minnesota's Comprehensive Wildlife Conservation Strategy from the Division of Ecological Services were found on the units surveyed for this project (**Table 1**). This information will be useful in assessing the importance of land set-aside for targeted wildlife species. We will better be able to answer the question of the importance of the surveyed habitats to species of **Greatest Conservation Need** now that we have recent and technically accurate information on species presence in these units.

## **Methods**

Two different methods were used to determine which species of birds were present on Scientific and Natural Areas and Prairie Banks during the project year. One method we described as "casual surveys". This method was used throughout the year and consisted of walking through an area and noting the number of each species of birds seen. In larger areas (1000+ acres) we spent a number of hours or a few days and in very small areas (40 acres) we spent up to an hour documenting birds present. All information was documented in field notebooks and transcribed to bird lists kept as data files by the Bird Survey Coordinator.

We used the Point Count method in June and early July, during the nesting season, to determine the density of breeding birds in each SNA and PB. We located points in the spring by walking at least 150 meters into a habitat, saving each point in a handheld GPS unit, and marking each point with flagging. We exerted considerable effort to locate points for each habitat type on each prairie parcel. Points were located at least 300 meters from each other. During June, between dawn and 9:30AM we relocated each point and spent 5 minutes documenting all male birds heard and seen within 50 meters of the point (100m diameter circle), and an unlimited radius circle. In addition, we thoroughly documented: the exact location of each point, the habitat, vegetation details, weather information, and any nests or notable bird behavior we observed. All bird and point location information was entered into an Excel spreadsheet.

All bird observers involved with this project documented state and federally listed species (Endangered, Threatened and Special Concern), as well as non-listed species that are tracked by the Natural Heritage Program, Ecological Services.

Historical information that was known relating to each of the assigned units was researched and summarized on an EXCEL spread sheet. Many sources were investigated including previous SNA inventories, and CBS survey information.

Combining the historical information, and the known current observations, the Bird Survey Coordinator developed each customized Scientific and Natural Area Bird List, in which season of use and bird species status was indicated. The raw data was assembled into visually attractive brochures for each unit, and they can be used in printed form, and are available on the DNR web site; [www.dnr.state.mn.us](http://www.dnr.state.mn.us) These lists are included in this Project Report .

The Bird Survey Coordinator also used the same process for developing the current bird lists for the Prairie Bank parcels, but these were not given the graphic improvements noted above for the SNA's. The information on the prairie bank parcels is also included in this report.

### Final Budget

The project budget includes funds from several different sources including RIM, St. Paul general fund, SWG federal funds, and RIM matching funds.

The table following, shows all actual expenditures for the project:

<b>BUDGET CATEGORIES</b>	<b>300-E181-E05</b>	<b>522-E181-D44</b>	<b>(RIM) 030-E781-D01</b>	<b>(Gen. Fund) 100-E760-E00</b>
Salary Full Time 1AO				
Prof/Tech. 2D0				
Travel 2G0				
Fleet 2K0				
Comm. 2F0				
Salary PT 1B0				
Supplies				
Indirect Cost				
<b>TOTAL*</b>				

\*Additional \$9159 was paid out of 239-E181-E00 (FY05)

### Project Accomplishments

Initial work by the Project Manager involved writing a position description, advertising for a Bird Survey Coordinator for the project, obtaining a Position Classification and approval to hire from St. Paul, conducting interviews, checking references and hiring for the project. Melissa Driscoll was hired as the SNA Bird Survey Coordinator (BSC) on November 17<sup>th</sup>, 2004. She was stationed in Fergus Falls and is currently stationed in St. Paul. She finalized her work on the project in December 2005. The Project Manager continued to provide project direction and Supervision of the Bird Survey Coordinator position, as well as budget and expense approval, purchasing and monitoring. The Project Manager hired all temporary help for the project, including state employee (temp) and contractors. The Project Manager also was responsible for all aspects of the SNA brochure development including graphics contracting , and graphic design of the brochures.

A bird data template from DNR Parks Division and information from 209 current and historical SNA bird lists (or sources) was entered into appropriate spreadsheets, one for each SNA or PB. Data was collected from: the aforementioned expert birders, volunteers, historic SNA reports, The Loon (Minnesota Ornithological Union publication), MOU-net and Mnbird list-serves, the Minnesota County Biological Survey, The Nature Conservancy, and local bird conservation groups, and current surveys conducted throughout the year. (**Table 2**).

The bird survey field team included Melissa Driscoll, and also 3 expert birders (Jerry Bonkoski, Robert Janssen and Carol Schumacher) who, performed a total of 131 casual surveys throughout the year and 131 point counts during June and July of 2005 on the 18 SNA's and 8 PB's. Sites were also visited by project personnel during the non-breeding seasons of summer, fall and winter, and a summary of dates/sites surveyed can be found in **Table 3**.

In addition to the Bird Survey Coordinator, the temporary employee, and the two contractor's, nine volunteer birders participated in this project. These volunteers contributed ~210 hours to the project, conducting casual surveys on SNA's and PB's. Volunteer Richard Phillips spent approximately 130 hours surveying prairies with the project coordinator. Volunteer names and hours contributed are included in this report.

The bird survey coordinator gave the following presentations to recruit birders and inform them of the project:

1. Minnesota Ornithological Union Annual Paper Session, The Bell Museum of Natural History, 10 Church St., Minneapolis, MN 55455. December 4, 2004. Maintained a booth at the Paper Session, distributed information to interested people, and solicited for volunteers. ~500 people in attendance.
2. St. Paul Audubon Society Meeting, Fairview Community Center, 1910 W. County Road B, Roseville, MN 55113. January 13, 2005. Solicited for information. ~ 50 people in attendance.
3. The Minnesota Chapter of the Wildlife Society Annual Meeting, The Best Western, 925 Western Ave., Fergus Falls, MN 56537. Gave out information on the project at a table, and solicited for volunteers. February 8-9, 2005. ~200 people in attendance.

The coordinator gave the following presentations to update DNR employees, birders, and other citizens about the project:

4. Statewide Nongame Meeting, The Minnesota Landscape Arboretum, Chanhassen, MN. September 7, 2005. ~ 25 people in attendance.
5. Minnesota Ornithological Union Annual Paper Session, The Bell Museum of Natural History, 10 Church St., Minneapolis, MN 55455. December 3, 2005. ~300 people in attendance.
6. Commissioner's Advisory Committee (CAC) on the Scientific and Natural Areas, County Biological Survey, and Nongame Programs, St. Paul DNR Building. December 7, 2005. ~ 14 in attendance.

Bird lists for all 18 Scientific and Natural Areas (SNA's) and 8 Prairie Banks were completed. The original lists can be accessed by all DNR employees through the I:drive at the DNR, and the SNA lists are accessible from the DNR Web site.

A total of 22 bird species originally designated in the project proposal as species of significance as identified through various listing and planning efforts were identified as being present on the sites surveyed. A total of 111 rare species documentation reports were filled out and submitted for inclusion into the Natural Heritage Program data base.

**Conclusions:**

This first project was the most comprehensive and recent effort to date to survey birds on Scientific and Natural Areas, and the first effort to survey birds on Prairie bank sites. The project provided not only rare species sightings, but also underscored the value of these sites as habitats for wildlife, specifically birds. The project will hopefully entice birders to visit the SNA's, and future funding will hopefully allow the Nongame and SNA Programs to continue to provide information on species use of these areas, both to the agency and to the public.

**Table `1.** Bird species associated with SNA's of the Red River Prairie and Aspen-Prairie Parkland subsections of Northwest Minnesota.

<b>Bird Species</b>	<b>Status</b> PIF: Partners in Flight Priority Species E: State Endangered T: State Threatened SC: State Special Concern SP: Priority in Prairie Potholed Shorebird Plan WP: Priority in Waterbird Plans	<b>Obligate</b>	<b>Potentially Present</b>	<b>Species of Greatest Conservation Need</b>	<b>Observed in 2005 survey year</b>
Pied-billed Grebe	PIF		x		X
Red-necked Grebe	WP		x	x	X
Horned Grebe	T,WP	x	x	x	X
Eared Grebe	WP		x	x	
American White Pelican	SC		x	x	X
Wilson's Phalarope	T		x	x	X
American Bittern	PIF,WP		x	x	X
Least Bittern	WP		x	x	
Black-crowned Night Heron	WP		x	x	
Trumpeter Swan	T, PIF		x	x	X
Wood Duck	PIF		x		X
American Wigeon			x	x	X

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Greater Scaup			x	x	
Lesser Scaup			x	x	
Northern Pintail			x	x	X
Bald Eagle	SC,T(f)		x	x	X
Northern Harrier	PIF		x	x	X
Red-shouldered Hawk	SC		x	x	
Swainson's Hawk	PIF		x	x	X
Greater Prairie Chicken	SC,PIF	x	x	x	X
Yellow Rail	SC		x	x	X
Virginia Rail	PIF,WP		x	x	X
King Rail	E		x	x	
Sora	PIF		x		X
Common Moorhen	SC,WP		x	x	
American Golden Plover	SP		x	x	
American Avocet	SP		x	x	X
Greater Yellowlegs	SP		x	x	X
Upland Sandpiper	SP		x	x	X
Hudsonian Godwit	SP		x	x	
Marbled Godwit	SC, PIF	x	x	x	X
Ruddy Turnstone	SP		x	x	
Semipalmated Sandpiper	SP		x	x	
White-rumped Sandpiper	SP		x	x	
Dunlin	SP		x	x	X
Short-billed Dowitcher	SP		x	x	
American Woodcock	SP		x	x	X
Franklin's Gull	SC				X
Forster's Tern	SC		x	x	X
Black Tern	PIF,WP	x	x	x	X
Black-billed Cuckoo	PIF		x	x	X
Short-eared Owl	SC		x	x	X
Burrowing Owl	E	x	x	x	
Common Nighthawk			x	x	X
Whip-poor-will			x	x	X
Red-headed Woodpecker	PIF		x	x	X
Yellow-bellied Sapsucker	PIF		x	x	X
Black-backed Woodpecker	PIF		x	x	

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Olive-sided Flycatcher	PIF		x	x	
Eastern Wood Pewee	PIF		x	x	X
Willow Flycatcher	PIF		x	x	X
Least Flycatcher	PIF		x	x	X
Northern Flicker	PIF		x		X
Loggerhead Shrike	T, PIF		x	x	
Northern Rough-winged Swallow	PIF		x	x	X
Winter Wren				x	X
Sedge Wren	PIF		x	x	X
House Wren	PIF		x		X
Marsh Wren	PIF		x	x	X
Veery	PIF		x	x	X
Wood Thrush	PIF		x	x	
Brown Thrasher	PIF		x	x	X
Sprague's Pipit	E	x	x	x	
Golden-winged Warbler	PIF		x	x	
Cape May Warbler	PIF		x	x	
Black-throated Blue Warbler	PIF		x	x	
Bay-breasted Warbler	PIF		x	x	X
Ovenbird			x	x	X
Common Yellowthroat			x	x	X
Canada Warbler	PIF		x	x	
Baird's Sparrow	E	x		x	
Clay-colored Sparrow	PIF		x		X
Vesper Sparrow	PIF		x		X
Grasshopper Sparrow	PIF		x	x	X
Henslow's Sparrow	E		x	x	X
Le Conte's Sparrow	PIF		x	x	X
Nelson's Sharp-tailed sparrow	SC, PIF		x	x	X
Swamp Sparrow	PIF		x	x	X
White-throated Sparrow			x	x	X
Chestnut-collared Longspur	E	x	x	x	X
Rose-breasted Grosbeak	PIF		x	x	X
Bobolink	PIF		x	x	X

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Dickcissel	PIF		x	x	
Eastern Meadowlark			x	x	X
Rusty Blackbird	PIF		x	x	X



**Table 2.** Bird Source List for SNA and Prairie Bank Bird Lists (including historic data)

Source Num.	Title	Author	Year
1	The 1979 Resource Inventory for Pembina Trail Preserve	SNA Section, MN DNR	1979
2	Bicentennial Prairie SNA Management Plan and Resource Inventory	SNA Program, MN DNR	1986
3	Malmberg Prairie SNA Management Plan and Resource Inventory	MN DNR and TNC	1980
4	Twin Valley Prairie SNA Management Plan and Resource Inventory	MN DNR and TNC	1980
5	Western Prairie North SNA Management Plan and Resource Inventory	SNA Section of MN DNR and TNC	1982
6	Western Prairie South SNA Management Plan and Resource Inventory	MN DNR and TNC	1983
7	Blazing Star Prairie SNA Management Plan and Resource Inventory	TNC and MN DNR SNA Program	1982
8	Agassiz Dunes SNA Management Plan and Resource Inventory	DNR and TNC	1980
9	Bluestem Prairie SNA Management Plan and Resource Inventory	TNC and DNR SNA Program	1982
10	Felton Prairie Report	Submitted to TNC and DNR Natural Heritage Program by Nancy Braker	1984
11	SNA Database - Bluestem		1984
12	SNA Database - Bluestem		1988
13	SNA Database - Bluestem		1989
14	SNA Database - Bluestem		1995
15	SNA Database - Bluestem		1997
16	SNA Database - Ottertail		1999
17	SNA Database - Ottertail		2001
18	Clay County Biological Survey	Minnesota County Biological Survey	2003
19	Detroit Lakes Hotline	Various	10/7-9/2004
20	Northwest Minnesota Birding Report	Various	7/2/2004
21	Northwest Minnesota Birding Report	Dan Svedarsky	12/11/2003
22	Northwest Minnesota Birding Report	Rick Gjervold	1/20/2003
23	Evaluation of the Bird Conservation Area Concept in the Northern Tallgrass Prairie Annual Report 2000	Maiken Winter, Douglas Johnson, Therese Donovan, Dan Svedarsky	2000
24	Winter Survey of Ottertail Prairie SNA	Melissa Driscoll, MN-DNR	12/3/2004
25	Fish and Wildlife Service Summer Bird Survey	unknown	June, July August, 1981
26	Winter Survey of Verlyn Marth SNA	Melissa Driscoll, MN-DNR	12/17/2004
27	Original Bird List of Verlyn Marth SNA	Verlyn Marth	1974-1979
28	Winter Survey of Western Prairie SNA	Melissa Driscoll, MN-DNR	12/21/2004
29	Buffalo River Bird List	Moorhead State University Regional Science Center	1999

<b>Source Num.</b>	<b>Title</b>	<b>Author</b>	<b>Year</b>
30	Winter Survey of Richard M. and Mathilda Rice Elliot SNA	Melissa Driscoll, MN-DNR	12/21-22/2004
31	Winter Survey of Bilden Prairie Bank	Melissa Driscoll, MN-DNR	12/22/2004
32	Winter Survey of Wallace Prairie Bank (by Rothsay)	Melissa Driscoll, MN-DNR	12/22/2004
33	Winter Survey of Blanket Flower SNA	Melissa Driscoll, MN-DNR	12/28/2004
34	Winter Survey of Twin Valley SNA	Melissa Driscoll, MN-DNR	12/29/2004
35	Winter Survey of Sandpiper Prairie SNA	Melissa Driscoll, MN-DNR	12/29/2004
36	The 1979 Resource Inventory for Santee Prairie, Mahnomon Co, MN	SNA Section, MN DNR	1979
37	Agassiz Dunes Natural Area	unknown	1970
38	Winter Survey of Frenchman's Bluff SNA	Melissa Driscoll, MN-DNR	1/4/2005
39	Winter Survey of Strand Prairie Bank	Melissa Driscoll, MN-DNR	1/5/2005
40	Winter Survey of Ulen Prairie Bank	Melissa Driscoll, MN-DNR	1/5/2005
41	Winter Survey of Santee SNA	Melissa Driscoll, MN-DNR	1/5/2005
42	Winter Survey of Prairie Smoke Dunes SNA	Melissa Driscoll, MN-DNR	1/7/2005
43	Winter Survey of Felton SNA	Melissa Driscoll, MN-DNR	1/19/2005
44	The 1979 Resource Inventory for Frenchman's Bluff, Norman Co., MN	SNA Section - MN DNR	Dec-79
45	Lake Bronson State Park Bird Checklist	Robert Janssen and MN-DNR Division of Parks and Recreation	2002
46	Winter Survey of Lake Bronson Parkland SNA	Melissa Driscoll, MN-DNR	1/25/2005
47	Winter Survey of B Bar B Prairie Bank	Melissa Driscoll, MN-DNR	2/1/2005
48	Winter Survey of Malmberg SNA	Melissa Driscoll, MN-DNR	2/2/2005
49	Winter Survey of Marsh Grove Prairie Bank	Melissa Driscoll, MN-DNR	1/27/2005
50	Winter Survey of Agassiz Dunes SNA	Melissa Driscoll, MN-DNR	2/3/2005
51	Winter Road Survey	John Ellis email	2/5/2005
52	Birds of the Fertile Sandhills	Joe Gartner	2003
53	Northwest Minnesota Birding Report	Various	12/19/2004
54	Winter Survey of Bluestem Prairie SNA	Melissa Driscoll, MN-DNR	12/27/2004
55	Winter Survey of Two Rivers Aspen Prairie Parkland SNA	Melissa Driscoll, MN-DNR	1/26/2005
56	Winter Survey of Gully Fen SNA	Melissa Driscoll, MN-DNR	1/27-28/2005
57	Winter Survey of Pembina Trail SNA (1)	Melissa Driscoll, MN-DNR	1/20/2006
58	Winter Survey of Pembina Trail SNA (2)	Melissa Driscoll, MN-DNR	2/2/2007
59	Minnesota County Biological Survey Data - Felton SNA	Steve Stucker, MN-DNR	5/27/1988
60	Minnesota County Biological Survey Data - Bluestem SNA	Steve Stucker, MN-DNR	May-88
61	Minnesota County Biological Survey Data - Santee Prairie SNA	Steve Stucker, MN-DNR	6/12/1995
62	Minnesota County Biological Survey Data - Twin Valley SNA	Steve Stucker, MN-DNR	6/28/1988

<b>Source Num.</b>	<b>Title</b>	<b>Author</b>	<b>Year</b>
63	Minnesota County Biological Survey Data - Sandpiper Prairie SNA	Steve Stucker, MN-DNR	June and July 1988
64	Minnesota County Biological Survey Data - Frenchman's Bluff SNA	Steve Stucker, MN-DNR	6/22/1988
65	Minnesota County Biological Survey Data - Ottertail Prairie	Steve Stucker, MN-DNR	6/8/1999
66	Minnesota County Biological Survey Data - Pembina Trail Preserve SNA	Steve Stucker, MN-DNR	6/8-9/1999
67	Minnesota County Biological Survey Data - Agassiz Dunes SNA	Steve Stucker, MN-DNR	6/20/1995
68	Minnesota County Biological Survey Data - Gully Fen SNA	Steve Stucker, MN-DNR	6/21/1995
69	Minnesota County Biological Survey Data - Two Rivers Aspen Prairie Parkland SNA	Steve Stucker, MN-DNR	6/12/1991
70	Minnesota County Biological Survey Data - Richard M. and Mathilda Rice Elliot SNA	Steve Stucker, MN-DNR	May-June, 1988
71	Minnesota County Biological Survey Data - Western Prairie SNA	Steve Stucker, MN-DNR	6/4/1988
72	Winter Survey of Rogers Prairie Bank	Melissa Driscoll, MN-DNR	2/11/2005
73	Detroit Lakes Hotline	Jeanie Jopru	2/6/2005
74	Proceedings of the MOU Records Committee - Spring 1987	Kim Eckert	6/24/1988
75	Proceedings of the MOU Records Committee - Fall 1977	Robert Janssen	5/30/1977
76	Baird's Sparrows in Clay County, The Loon September 1970	Kim Eckert	5/23/1970
77	Baird's Sparrow - The Loon 1969	Donald Bolduc	7/19/1968
78	Proceedings of the Minnesota Ornithological Records Committee - Spring 1989	Kim Eckert	1988
79	Smith's Longspurs and Prairie Falcons in Western Minnesota - The Loon, Winter 1989	Parker Backstrom	Fall 1989
80	Scissor-Tailed Flycatcher In Norman County - The Loon 1991	Peder Svingen	9/26/1990
81	Smith's Longspurs in Norman County - The Loon 1991	Peder Svingen	10/13/1990
82	Baird's Sparrows at Felton Prairie - The Loon Winter 1991	Kim Risen	6/1/1991
83	Breeding Birds of Glacial Ridge, 2002.	John Richardson	6/10-17/2002
84	Avian Diversity, Abundance and Conservation on a Large Prairie Landscape in Northwestern Minnesota - Master's Thesis	Jeanne Irene Holler	May-July, 1989
85	Proceedings of the Minnesota Ornithological Records Committee - Spring 1994, The Loon	Kim R. Eckert	Jun-93

<b>Source Num.</b>	<b>Title</b>	<b>Author</b>	<b>Year</b>
86	Proceedings of the Minnesota Ornithological Records Committee - Spring 1992, The Loon	Kim R. Eckert	7/24/1991
87	Lark Bunting at the Felton Prairie, Clay County	Kim W. Risen	6/5/1992
88	Winter Survey at Bluestem SNA (2)	Melissa Driscoll, MN-DNR	2/17/2005
89	Personal Account	Shelley Steva	3/5/2005
90	Personal Account	Heidi Ferguson	2/26/2005
91	Personal Account	John Ellis	3/20/2005
92	Spring (mini) Survey	Melissa Driscoll, MN-DNR	3/21/2005
93	Personal Account	Shelley Steva	3/28/2005
94	Personal Account	Heidi Ferguson	3/26/2005
95	2003 Prairie Chicken Inventory	Minnesota Prairie Chicken Society	6/25/2004
96	Breeding Bird Survey of Wet Meadow Sites	Karen Schik - Master's Thesis	1996
97	Western Prairie SNA Bird Survey	Melissa Driscoll, MN-DNR	4/6/2005
98	Richard M. and Mathilda Rice Elliot SNA Bird Survey	Melissa Driscoll, MN-DNR	4/6/2005
99	Wallace Prairie Bank Lunch Bird Survey	Melissa Driscoll, MN-DNR	4/6/2005
100	Blanket Flower Prairie SNA Spring Bird Survey	Melissa Driscoll, MN-DNR	4/7/2005
101	Northwest Minnesota Birding Report	Various	3/10/2005
102	Northwest Minnesota Birding Report	Various	4/1/2005
103	Personal Account	John Ellis	4/3/2005
104	Northwest Minnesota Birding Report	Various	4/7/2005
105	Personal Account	Conny Brunell	4/9/2005
106	B - B Prairie Bank Spring Bird Survey	Melissa Driscoll, MN-DNR	4/12/2005
107	Spring Survey at Ottertail Prairie SNA	Melissa Driscoll, MN-DNR	4/19/2005
108	Spring Survey at Verlyn Marth SNA	Melissa Driscoll, MN-DNR	4/20/2005
109	Spring Survey at Wallace Prairie Bank	Melissa Driscoll, MN-DNR	4/21/2005
110	Spring Survey at Felton SNA	Robert O'Conner, NDSU	4/25/2005
111	Spring Survey of Sandpiper Prairie SNA	Melissa Driscoll, MN-DNR	4/22/2005
112	Spring Survey of Bilden Prairie Bank	Melissa Driscoll, MN-DNR	4/26/2005
113	Spring Survey of Twin Valley Prairie SNA	Melissa Driscoll, MN-DNR	4/27/2005
114	Spring Survey of Santee Prairie SNA	Melissa Driscoll, MN-DNR	4/28/2005
115	Spring Survey of Frenchman's Bluff SNA	Melissa Driscoll, MN-DNR	5/3/2005
116	Spring Survey of Ulen Prairie Bank	Melissa Driscoll, MN-DNR	5/4/2005
117	Spring Survey of Strand Prairie Bank	Melissa Driscoll, MN-DNR	5/4/2005
118	Spring Survey of Rogers Prairie Bank	Melissa Driscoll, MN-DNR	5/5/2005
119	Spring Survey of Ottertail Prairie SNA	Melissa Driscoll, MN-DNR	5/6/2005
120	Spring Survey of Richard M. and Mathilda Rice Elliot SNA	Melissa Driscoll, MN-DNR	5/10/2005
121	Spring Survey of Western SNA	Melissa Driscoll, MN-DNR	5/11/2005
122	Spring Survey of Twin Valley Prairie SNA	Melissa Driscoll, MN-DNR	5/16/2005
123	Personal Account	Heidi Ferguson	4/30/2005
124	Spring Survey of Blanket Flower Prairie SNA	Melissa Driscoll, MN-DNR and Richard Phillips (volunteer)	5/17/2005

<b>Source Num.</b>	<b>Title</b>	<b>Author</b>	<b>Year</b>
125	Spring Survey of Sandpiper SNA	Melissa Driscoll, MN-DNR and Richard Phillips (volunteer)	5/19/2005
126	Spring Survey of Santee Prairie SNA	Melissa Driscoll, MN-DNR and Richard Phillips (volunteer)	5/20/2005
127	Spring Survey of Malmberg SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	5/23/2005
128	Spring Survey of Lake Bronson Parkland SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	5/24/2005
129	Spring Survey of Two Rivers Aspen Prairie Parkland SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	5/25/2005
130	Spring Survey of Marsh Grove Prairie Bank	Melissa Driscoll, MN-DNR and Carol Schumacher	5/26/2005
131	Spring Survey of Guillemette Prairie Bank	Melissa Driscoll, MN-DNR and Carol Schumacher	5/27/2005
132	Summer Survey of Ootertail Prairie SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	6/2/2005
133	Personal Account	Mary Broten	5/28/2005
134	Personal Account	Matt Mecklenburg, TNC	3/22-5/2/2005
135	Personal Account	Matt Mecklenburg, TNC	6/1/2005
136	Personal Account	Joel Dunnette	5/31/2005
137	Northwest Minnesota Birding Report	Jeanne Jopru, Jeff Bouton, Ben Fritchman,	5/25-27/2005
138	Personal Account	Jordahl	6/1/2005
139	Personal Account	Connie Norheim	4/23/2005
140	Personal Account	Jerry Bonkoski	5/11/2005
141	Personal Account	Bob O'Connor	5/11/2005
142	Personal Account	Ben Fritchman	5/11/2005
143	Personal Account	Bob O'Connor, Doug Johnson	5/15/2005
144	Personal Account	Conny Brunell, Leslie Marcus, Susan Schumacher	5/15/2005
145	Personal Account	Dan and Sandy	5/16/2005
146	Northwest Minnesota Birding Report	Patrick Beauzay	5/19/2005
147	Personal Account	John Ellis	5/18/2005
148	Summer Survey of Rice Elliott SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	6/3/2005
149	Summer Survey of Western SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	6/6/2005
150	Summer Survey of Blanket Flower Prairie SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	6/9/2005
151	Summer Survey of Malmberg Prairie SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	6/10/2005
152	Summer Survey of Guillemette Prairie Bank	Melissa Driscoll, MN-DNR and Carol Schumacher	6/10/2005
153	Summer Survey of Sandpiper Prairie SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	6/13/2005

<b>Source Num.</b>	<b>Title</b>	<b>Author</b>	<b>Year</b>
154	Summer Survey of Twin Valley SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	6/14/2005
155	Summer Survey of Santee Prairie SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	6/15/2005
156	Summer Survey of Frenchman's Bluff SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	6/16/2005
157	Summer Survey of Ulen Prairie Bank	Melissa Driscoll, MN-DNR and Carol Schumacher	6/17/2005
158	Summer Survey of Strand Prairie Bank	Melissa Driscoll, MN-DNR and Carol Schumacher	6/17/2005
159	Summer Survey of Lake Bronson Aspen Prairie Parkland SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	6/21/2005
160	Summer Survey of Two Rivers Aspen Prairie Parkland SNA	Melissa Driscoll, MN-DNR and Carol Schumacher	6/22-23/2005
161	Summer Survey of Marsh Grove Prairie Bank	Melissa Driscoll, MN-DNR and Carol Schumacher	6/24/2005
162	Summer Survey of Rogers Prairie Bank	Melissa Driscoll, MN-DNR and Carol Schumacher	6/27/2005
163	Summer Survey of Wallace Prairie Bank (Wilkin Co.)	Melissa Driscoll, MN-DNR and Carol Schumacher	6/28/2005
164	Summer Survey of Bilden Prairie Bank	Melissa Driscoll, MN-DNR	7/6/2005
165	Spring Bird Inventories	Robert Janssen and Jerry Bonkoski	March-May 2005
166	Summer Bird Inventories	Robert Janssen and Jerry Bonkoski	Jun-05
167	Summer Bird Inventory of Ottertail Prairie	Steve Millard	1995
168	Summer Bird Inventory of Western Prairie	Steve Millard	1995
169	Summer Bird Inventory of Western Prairie	Steve Millard	1996
170	Summer Bird Inventory of Ottertail Prairie	Steve Millard	1996
171	Summer Bird Inventory of Western Prairie	Steve Millard	1997
172	Summer Bird Inventory of Ottertail Prairie	Steve Millard	1997
173	Summer Bird Inventory of Ottertail Prairie	Steve Millard	1998
174	Summer Bird Inventory of Western Prairie	Steve Millard	1998
175	Personal Account	Heidi Ferguson	5/27-28/2005
176	Summer Survey of Verlyn Marth SNA	Carol Schumacher	5/31/2005
177	Fall Survey of Verlyn Marth SNA	Melissa Driscoll, MN-DNR	8/3/2005
178	Fall Survey of Ottertail Prairie SNA	Melissa Driscoll, MN-DNR	8/4/2005
179	Fall Survey of Western Prairie SNA	Melissa Driscoll, MN-DNR	8/8/2005
180	Fall Survey of Rice-Elliott SNA	Melissa Driscoll, MN-DNR	8/10/2005
181	Fall Survey of Rogers Prairie Bank	Melissa Driscoll, MN-DNR	8/11/2005
182	Fall Survey of Twin Valley SNA	Melissa Driscoll, MN-DNR	8/12/2005
183	Fall Survey of Frenchman's Bluff SNA	Melissa Driscoll, MN-DNR	8/12/2005
184	Fall Survey of Sandpiper SNA	Melissa Driscoll, MN-DNR	8/15/2005
185	Fall Survey of Santee SNA	Melissa Driscoll, MN-DNR	8/16/2005
186	Personal Account - Pembina Trail SNA	Allison Lambert	8/14/2005
187	DNR Rare and Natural Features Database	various	1956-2001
188	Personal Account - Pembina Trail SNA	Allison Lambert	8/21/2005

<b>Source Num.</b>	<b>Title</b>	<b>Author</b>	<b>Year</b>
189	Fall Survey of Marsh Grove Prairie Bank	Melissa Driscoll, MN-DNR and Richard Phillips (volunteer)	8/22/2005
190	Fall Survey of Lake Bronson APP SNA	Melissa Driscoll, MN-DNR and Richard Phillips (volunteer)	8/23/2005
191	Fall Survey of Two Rivers Aspen Prairie Parkland SNA	Melissa Driscoll, MN-DNR and Richard Phillips (volunteer)	8/24/2005
192	Fall Survey of Guillemette Prairie Bank	Melissa Driscoll, MN-DNR	8/25/2005
193	Fall Survey of Blanket Flower SNA	Melissa Driscoll, MN-DNR	8/31/2004
194	Fall Survey of Ulen Prairie Bank	Melissa Driscoll, MN-DNR	9/2/2005
195	Fall Survey of Strand Prairie Bank	Melissa Driscoll, MN-DNR	9/2/2005
196	Fall Survey of Bilden Prairie Bank	Melissa Driscoll, MN-DNR	9/13/2005
197	Fall Survey of Wallace Prairie Bank	Melissa Driscoll, MN-DNR	9/14/2005
198	Fall Survey of Malmberg Prairie SNA	Melissa Driscoll, MN-DNR	9/15/2005
199	Northwest Minnesota Birding Report	Bruce Flaig	9/7/2005
200	Northwest Minnesota Birding Report	Pat Rice	7/29/2005
201	Northwest Minnesota Birding Report	Chet Myers	6/26/2005
202	Northwest Minnesota Birding Report	Dan Harrington, Milton Blomberg	4/15-22/2005
203	Mandel Birding Trips	Craig Mandel	4/15-17/2005
204	Northwest Minnesota Birding Report	Patrick Because	4/13/2005
205	Personal Account	Heidi Ferguson	7/10/2005
206	Northwest Minnesota Birding Report	various	4/10/2003
207	Personal Account	Joel Claus	4/2/2005
208	Personal Account	Heidi Ferguson	7/16/2005
209	Fall Bird Inventories of Northwest Minnesota SNA's	Robert Janssen and Jerry Bonkoski	8/23-10/18, 2005

**Table 3.** Dates that Scientific and Natural Areas and Prairie Bank Parcels were surveyed from December 04 through November 05.

<b>SNA's and Prairie Bank Parcels surveyed from December 2004- to November 2005</b>	<b>County</b>	<b>Ownership</b>	<b>Acres</b>	<b>1st Survey Date</b>	<b>2nd Survey Date</b>	<b>3rd Survey Date</b>	<b>4th Survey Date</b>	<b>5th Survey Date</b>	<b>6th Survey Date</b>	<b>7<sup>th</sup> Survey Date</b>	<b>8<sup>th</sup> Survey Date</b>
Blanket Flower	Clay	DNR	304	12-28-04	4-7-05	5-17-05	6-9-05	8-31-05			
Bluestem Prairie	Clay	TNC	2,855	12-27-04	2-17-05	4-20-05	5-10-05	6-9-05	6-28-05	9-27-05	10-17-05
Felton Prairie	Clay	TNC	761	1-19-05	4-19-05	5-10-05	6-8-05	6-29-05	8-23-05	9-27-05	10-18-05
B-B Prairie Bank	Clay	B. Bjerken	521	2-1-05	4-12-05	4-19-05	5-10-05	6-8-05	10-6-05	10-18-05	
Rogers Prairie Bank	Clay	P. Rogers	80	2-11-05	5-5-05	6-27-05	8-11-05				
Strand Prairie Bank	Clay	A. Strand	200	1-4-05	5-4-05	6-17-05	9-2-05				
Ulen 29 Prairie Bank	Clay	O. Asleeson	39	1-4-05	5-4-05	6-17-05	9-2-05				
Lake Bronson Parkland	Kittson	DNR	196	1-25-05	5-23-05	6-21-05	8-23-05				
Santee Prairie	Mahnomen	DNR	442	1-5-05	4-27-05	5-20-05	6-15-05	8-16-05			
Marsh Grove Prairie Bank	Marshall	G. and M. Griffin	470	1-27-05	5-26-05	6-24-05	8-22-05				
Frenchman's Bluff	Norman	TNC	50	1-4-05	5-3-05	6-16-05	8-12-05				
Prairie Smoke Dunes	Norman	DNR	1107	1-7-05	5-19-05	6-21-05	8-23-05	10-7-05			
Sandpiper Prairie	Norman	DNR	320	12-29-04	4-22-05	5-19-05	6-13-05	8-15-05			
Twin Valley Prairie	Norman	TNC	499	12-29-04	4-27-05	5-16-05	6-14-05	8-12-05			
Agassiz Dunes	Norman/Polk	TNC	435	2-3-05	5-9-05	6-21-05	10-7-05	10-19-05			
Ottertail Prairie	Ottertail	DNR	320	12-3-04	3-21-05	4-19-05	5-6-05	6-2-05	8-4-05		
Gully Fen	Polk	DNR	1,610	1-27-05	1-28-05	5-22-05	6-23-05	8-24-05	10-8-05		
Malmberg Prairie	Polk	TNC	80	2-2-05	5-23-05	6-10-05	9-15-05				
Pembina Trail Preserve	Polk	TNC	2,377	1-20-05	2-2-05	5-22-05	6-21-05	8-24-05	10-5-05		
Guillemette Prairie Bank	Red Lake		43	5-27-05	6-10-05	8-25-05					
Two Rivers Aspen Prairie Parkland	Roseau	DNR	1333	1-26-05	5-25-05	6-22-05	8-24-05				
Verlyn Marth Memorial Prairie	Stevens	DNR	34	12-17-04	4-20-05	5-31-05	8-3-05				
Richard M and Mathildei Rice Elliott	Wilkin	TNC	497	12-21-04	12-23-04	4-6-05	5-10-05	6-2-05	8-10-05		
Western Prairie	Wilkin	TNC	320	12-21-04	4-6-05	5-11-05	6-6-05	8-8-05			
Bilden Prairie Bank	Wilkin	R Bilden	50	12-22-04	4-26-05	7-6-05	9-13-05				
Wallace Prairie Bank	Wilkin	T. Wallace	160	12-22-04	4-6-05	4-21-05	6-28-05	9-14-05			