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INTERNATIONAL SHOREBIRD SURVEY REPORT FOR SOUTHEASTERN NEBRASKA -
SPRING 1997

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INTRODUCTION

In 1974, Manomet Observatory in Massachusetts organized the International Shorebird Survey (ISS) to collect information on shorebirds during migration. The project is intended to monitor shorebird population trends and to identify major migration routes, timing, and locations of staging areas. More than 600 contributors from 38 states of the United States, and countries, territories, and commonwealths throughout the hemisphere have contributed data since the program's inception. The Nebraska Game and Parks Commission collected data for the ISS in the eastern Rainwater Basin area (Clay, Fillmore, York, and Seward counties) from 1993-1996.

Nebraska's eastern saline wetlands, located in or near the city of Lincoln, are considered critically imperiled and the most limited and endangered vegetation community in the state (LaGrange 1997). The shallow waters and exposed mudflats are especially attractive to waterfowl and shorebirds, who feed on the abundant invertebrate life forms. More than 230 species of birds have been identified in the salt basins of Lancaster County alone, more than half the total number of species reported for Nebraska (Farrar and Gersib 1991). In 1997, we began surveying eastern saline wetlands to document the numbers and species of shorebirds using these unique natural habitats.

METHODS

ISS guidelines state that for the spring migration period, one survey should be conducted every ten days in April and May, and one during the first ten days of June. Nebraska Game and Parks Commission biologists conducted seven surveys from April 3 through June 2, 1997, at five saline wetland locations in northern Lancaster and southern Saunders counties in southeastern Nebraska: Arbor Lake Wildlife Management Area ($\frac{1}{2}$ mile north of 27th Street and Arbor Road, Lincoln, NE), Jack Sinn WMA (the main water area east of Highway 77 and Ashland Road, $\frac{1}{2}$ mile south of Ceresco, NE), the Department of Road's Davey Road wetland mitigation site (2 miles south of Ceresco), Otto Conservation Easement (4 miles east of Ceresco), and the Nature Conservancy's Little Salt Fork Preserve (3 miles east of Raymond, NE). All available shorebird habitat at each site was explored. Counts took place on clear to partly cloudy days with winds less than 20

mph. Surveys began and ended on the same day, with as much time taken as was needed to complete a site. (During the initial ten-day sampling period, surveys were conducted on April 3 at four sites, and on April 9 at Little Salt Fork Preserve.) The order of the sites visited each day remained constant.

Two observers recorded numbers and species of shorebirds at or flying over each site, and all other bird species encountered. Abundances were qualified as either exact or extrapolated counts. No attempts were made to distinguish between Long- and Short-billed Dowitchers. Unidentified shorebirds were listed as "shorebird spp.," or "peeps" if they were known to belong to the genus *Calidris* (Western, Semipalmated, Least, White-rumped, and Baird's Sandpiper).

RESULTS

Observers recorded 22 shorebird species using the eastern saline wetlands during spring migration (Table 1). Excluding peeps, yellowlegs spp. were recorded most often, followed by White-rumped and Semipalmated Sandpipers, Killdeer, and Dunlin. Ten species (Killdeer, all peeps except Least Sandpiper, Pectoral Sandpiper, Dunlin, Dowitcher spp., Common Snipe, and Wilson's Phalarope) were found at all five sites, whereas birds seen at only one location were Solitary and Upland Sandpipers (Little Salt Fork), Willet (Jack Sinn), and Red-necked Phalarope (Davey Road).

Table 1. Species and abundance of shorebirds, and dates observed, at five saline wetlands in northern Lancaster and southern Saunders counties, Nebraska, April 3-June 2, 1997.

Species	Arbor Lake	Davey Road	Jack Sinn	Otto Easement	Little Salt Fork	Total	Date(s) ¹
American Golden-Plover	0	0	0	1	2	3	M 21
Semipalmated Plover	0	5	3	2	0	10	M 1, 15
Killdeer	22	14	17	18	31	102	A 3-J 2
Greater Yellowlegs	8	0	5	1	9	23	A 9-M 15
Lesser Yellowlegs	0	2	0	10	21	33	A 9-M 21
Yellowlegs, spp.	86	0	0	12	193	291	A 9-M 15
Solitary Sandpiper	0	0	0	0	1	1	M 15
Willet	0	0	1	0	0	1	A 3
Spotted Sandpiper	2	7	1	0	0	10	A 23-J 2
Upland Sandpiper	0	0	0	0	2	2	M 1
Hudsonian Godwit	0	7	0	42	0	49	A15-M21
Semipalmated Sandpiper	4	54	13	31	2	104	M 1-J 2
Western Sandpiper	3	2	2	2	5	14	M1-M 21
Least Sandpiper	14	11	0	15	15	55	M 1-J 2
White-rumped Sandpiper	8	52	23	53	40	176	M 15-J 2
Baird's Sandpiper	10	14	25	10	3	62	A23-M21
Pectoral Sandpiper	12	10	1	1	4	28	A 15-J 2
Dunlin	5	13	8	40	18	84	M 15
Stilt Sandpiper	8	0	0	0	1	9	M 15
Dowitcher spp.	6	10	5	22	1	44	M 1, M15
Common Snipe	29	1	3	2	23	58	A 3-M 1
Wilson's Phalarope	20	5	1	10	31	67	A23-M21
Red-necked Phalarope	0	3	0	0	0	3	M 15
Shorebird spp.	0	1	0	20	0	21	
Peeps	84	76	112	151	162	585	
Total abundance	321	287	220	443	564	1835	
Number of species	14	16	14	16	17	22	

¹ A=April; M=May; J=June. Dates surveyed: April 3 & 9, 15, 23; May 1, 15, 21; June 2.

More species and numbers of shorebirds were observed at Little Salt Fork than at any other site. This was the largest area covered and it contained exposed shoreline and several flooded fields. The low totals for Jack Sinn were due in part to high water levels in the spring that limited the availability of mudflats and shoreline. Shorebird migration peaked in mid-May (Figures 1 & 2).

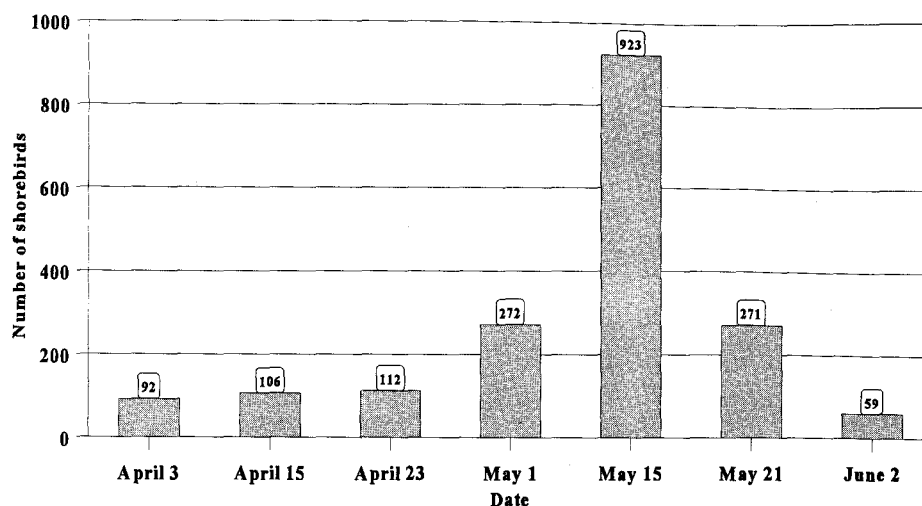


Figure 1. Number of shorebirds by date at five saline wetlands in northern Lancaster and southern Saunders counties, Nebraska, April 3-June 2, 1997.

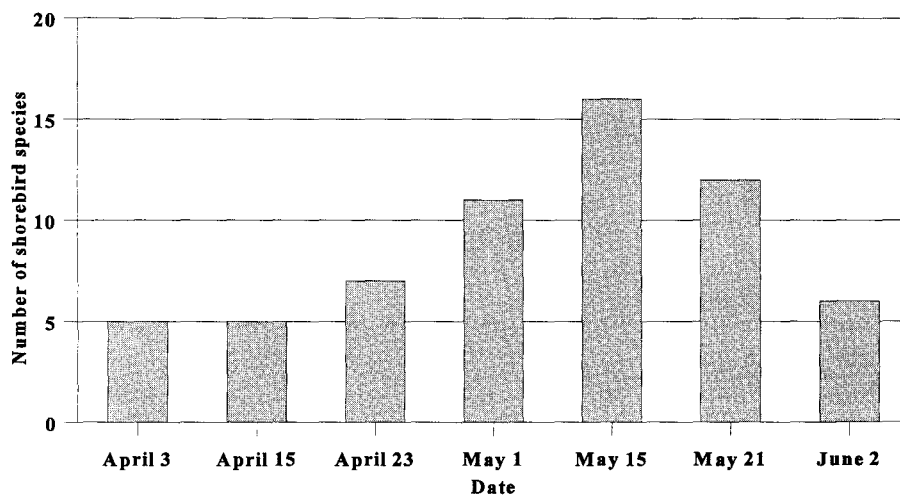


Figure 2. Number of shorebird species by date at five saline wetlands in northern Lancaster and southern Saunders counties, Nebraska, April 3-June 2, 1997.

Sixty-four additional bird species were identified during the surveys (see Appendix). Nesting was documented for Blue-winged Teal (six ducklings at Little Salt Fork on May 21) and Loggerhead Shrike (two juveniles at Arbor Lake and five nestlings at Otto easement on June 2). A pair of Great-tailed Grackles built and defended a nest site at Jack Sinn, but the outcome was not determined. The Le Conte's Sparrow was seen at Otto easement on April 23, and hunting overhead there on May 15 was the Peregrine Falcon. On May 1, the Virginia Rail was at Jack Sinn, and the Sora was heard at Arbor Lake on May 15.

DISCUSSION

An estimated 3,244 acres of saline wetlands remain in eastern Nebraska (LaGrange 1997). The ISS sites for this study represent 160 acres, or 5% of the total. Based on our initial survey, and assuming that at least $\frac{1}{2}$ of the remaining eastern saline wetland acres provide stopover habitat similar to our survey sites, we estimate that more than 20,000 shorebirds may use these highly vulnerable staging areas during spring migration. These surveys will continue for the 1997 fall migration. We are hoping to repeat the surveys during the spring and fall migrations of 1998 and 1999, depending on availability of personnel. Persons interested in assisting with these surveys or setting up a shorebird survey elsewhere in Nebraska should contact John Dinan at the Nebraska Game and Parks Commission for more information.

ACKNOWLEDGMENTS

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REFERENCES

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- LaGrange, T. 1997. Guide to Nebraska's wetlands and their conservation needs. Nebraska Game and Parks Commission, Lincoln, Neb. 34 pp.

APPENDIX

Additional bird species at five saline wetlands in northern Lancaster and southern Saunders counties, Nebraska, April 3-June 2, 1997: Pied-billed Grebe, Eared Grebe, White Pelican, Double-crested Cormorant, Great Blue Heron, Great Egret, Black-crowned Night-Heron, Snow Goose, Canada Goose, Wood Duck, Green-winged Teal, Mallard, Northern Pintail, Blue-winged Teal, Northern Shoveler, Gadwall, American Wigeon, Redhead, Lesser Scaup, Bufflehead, Turkey Vulture, Northern Harrier, Swainson's Hawk, Red-tailed Hawk, American Kestrel, Peregrine Falcon, Ring-necked Pheasant, Northern Bobwhite, Virginia Rail, Sora, American Coot, Franklin's Gull, Ring-billed Gull, Black Tern, Mourning Dove, Northern Flicker, Willow Flycatcher, Eastern Kingbird, Tree Swallow, Northern Rough-winged Swallow, Cliff Swallow, Barn Swallow, Sedge Wren, American Robin, Brown Thrasher, Loggerhead Shrike, European Starling, Yellow Warbler, Common Yellowthroat, Rose-breasted Grosbeak, Savannah Sparrow, Le Conte's Sparrow, Song Sparrow, Swamp Sparrow, Harris' Sparrow, Bobolink, Red-winged Blackbird, Eastern Meadowlark, Western Meadowlark, Yellow-headed Blackbird, Great-tailed Grackle, Common Grackle, Brown-headed Cowbird, Le Conte's Sparrow, Song Sparrow, Swamp Sparrow, Harris' Sparrow, Bobolink,

Red-winged Blackbird, Eastern Meadowlark, Western Meadowlark, Yellow-headed Blackbird, Great-tailed Grackle, Common Grackle, Brown-headed Cowbird, American Goldfinch.