



Illinois Natural History Survey A Division of the Department of Energy and Natural Resources

ENR

Forbes Biological Station, Waterfowl Research Laboratory, Box 599, Havana, Illinois 62644, (309) 543-3950

15 June 1992

Randy Kraciun
U.S. Army Corps of Engineers
Rock Island District
Clock Tower Building
P.O. Box 2004
Rock Island, IL 61204-2004

Dear Randy,

Enclosed please find our report for the aerial inventories of waterfowl conducted from September 1991 through spring 1992 at the Upper Peoria Lake and Lake Chautauqua EMP sites.

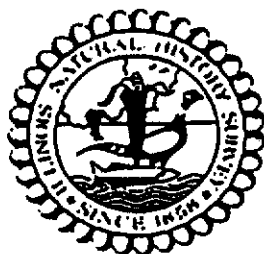
I will contact you in early August about inventories for this fall and next spring.

Sincerely,

Stephen P. Havera, Ph.D.
Director
Forbes Biological Station

CC: Dr. Richard E. Warner

ILLINOIS NATURAL HISTORY SURVEY



CENTER FOR WILDLIFE ECOLOGY

Aerial Waterfowl Inventories of Chautauqua National Wildlife
Refuge and Peoria Lake Environmental Management Program Sites

Annual Report

by

Stephen P. Havera
and
Michelle M. Georgi

Illinois Natural History Survey

1 September 1991 through 31 August 1992

The purpose of this project was to aeriually inventory waterfowl (ducks and geese), bald eagles, double-crested cormorants, and pelicans during fall and spring, 1991-1992 at Upper Peoria Lake and Lake Chautauqua EMP sites. Inventories were conducted from light aircraft flying at low levels. Fall inventories were made on 4 and 12 September; 7, 15, and 21 October; 4, 13, 18, and 25 November; 4 and 9 December; and 9 January. Spring inventories were made on 25 February; 2, 11, 16, and 24 March; and 1, 7, and 14 April. Species of waterfowl and their respective numbers were recorded during each inventory.

The Upper Peoria Lake EMP site was divided into two inventory areas, the lake segment and the Forested Wetland Management Area (FWMA). There were no waterfowl observed at the FWMA during the fall or spring migrations. We are still uncertain if the FWMA can be accurately inventoried as a result of the difficulty in identifying and enumerating waterfowl in flooded timber. Perhaps once the FWMA is established we can better assess the possibilities of censusing the area.

The inventory data is summarized by site in tabular form displaying the peak (highest number counted for all inventories) population count by species for each compartment at each site and also for the entire site during fall (Sept.-Jan.) and spring (Feb.-Apr.) (Tables 2 and 5). The peak number for the entire site may not represent the sum of the peaks for all the compartments because the peak numbers in the various compartments could have occurred on different flight dates. Additionally, the results of each waterfowl inventory are provided by date for each site (Tables 3, 4, 6, and 7).

Table 1. Common names of waterfowl aerially inventoried and abbreviations used in the report.

Common name		Abbreviation
Dabbling ducks		
Mallard	=	MALLARD
American black duck	=	BLK
Northern pintail	=	PNT
Blue-winged teal	=	BWT
Green-winged teal	=	GWT
American wigeon	=	WIG
Gadwall	=	GAD
Northern shoveler	=	SH
Diving ducks		
Lesser and greater scaup	=	SCAUP
Ring-necked duck	=	RN
Canvasback	=	CNVB
Redhead	=	RH
Ruddy duck	=	RDY
Common goldeneye	=	GLD
Bufflehead	=	BH
Mergansers		
Common merganser	=	CM
Red-breasted merganser	=	RBM
Hooded merganser	=	HM
Geese		
Canada goose	=	CG
Snow goose	=	B&SG
American coot	=	COOT

Upper Peoria Lake

Table 2. Peak numbers of waterfowl aerially inventoried by the Illinois Natural History Survey at Upper Peoria Lake EMP site, fall and spring, 1991-1992^a.

	<u>Upper Peoria Lake</u>		<u>Forested Wetland Management Area</u>		<u>Total</u>	
	<u>Fall</u>	<u>Spring</u>	<u>Fall</u>	<u>Spring</u>	<u>Fall</u>	<u>Spring</u>
Dabbling ducks						
Mallard	1,000	300	0	0	1,000	300
American black duck	75	0	0	0	75	0
Northern pintail	200	0	0	0	200	0
Blue-winged teal	20	100	0	0	20	100
Green-winged teal	0	100	0	0	0	100
American wigeon	0	200	0	0	0	200
Gadwall	800	0	0	0	800	0
Northern shoveler	0	0	0	0	0	0
All dabbling ducks	1,850	300	0	0	1,850	300
Diving ducks						
Lesser & greater scaup	250	200	0	0	250	200
Ring-necked duck	0	0	0	0	0	0
Canvasback	0	0	0	0	0	0
Redhead	0	0	0	0	0	0
Ruddy duck	0	0	0	0	0	0
Common goldeneye	50	400	0	0	50	400
Bufflehead	0	0	0	0	0	0
All diving ducks	250	600	0	0	250	600
Mergansers						
Common merganser	0	100	0	0	0	100
Red-breasted merganser	0	0	0	0	0	0
Hooded merganser	0	0	0	0	0	0
All mergansers	0	100	0	0	0	100
All ducks	2,050	1,000	0	0	2,050	1,000
Geese						
Canada goose	100	50	0	0	100	50
Snow goose	0	0	0	0	0	0
American coots	300	200	0	0	300	200
Bald eagles						
Adult	0	0	0	0	0	0
Immature	0	0	0	0	0	0
All eagles	0	0	0	0	0	0
Double-crested cormorants	0	0	0	0	0	0
Pelicans	0	0	0	0	0	0

^a The peak number for the entire site may not represent the sum of the peaks for all the compartments because the peak numbers in the various compartments could have occurred on different flight dates.

Table 4. Waterfowl aerial inventory data for each individual flight for Upper Peoria Lake EMP site, spring 1992.

	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	DABBLERS	TOTAL	TOTAL	TOTAL	DUCKS	CG	B&SG	COOT	ADULT	IMM	CORM	PEL	BALD EAGLE						
																															DIVERS	MERG.	575	50	0	0	0
UPPER PEORIA LAKE EMP AREA																																					
Upper Peoria Lake																																					
02/25/92	300	0	0	0	0	0	0	0	0	0	0	0	0	0	250	0	0	0	0	300	250	25	575	50	0	0	0	0	0	0	0	0	0				
03/02/92	300	0	0	0	0	0	0	0	200	0	0	0	0	400	0	100	0	0	0	300	600	100	1,000	0	0	0	0	0	0	0	0	0	0	0			
03/11/92	50	0	0	0	0	0	0	0	0	0	0	0	0	200	0	25	0	0	0	50	200	25	275	10	0	0	0	0	0	0	0	0	0	0			
03/16/92	300	0	0	0	0	0	0	0	100	0	0	0	0	0	0	10	0	0	0	300	100	10	410	0	0	200	0	0	0	0	0	0	0				
03/24/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
04/01/92	50	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	150	0	0	0	0	0	0	0	0	0	0	0			
04/07/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0			
04/14/92	0	0	0	100	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	300	0	0	0	0	0	0	0	0	0	0	0			
Forested Wetland Management Area																																					
02/25/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03/02/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03/11/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03/16/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03/24/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/01/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/07/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/14/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upper Peoria Lake EMP Area Total																																					
02/25/92	300	0	0	0	0	0	0	0	0	0	0	0	0	250	0	25	0	0	0	300	250	25	575	50	0	0	0	0	0	0	0	0	0	0	0		
03/02/92	300	0	0	0	0	0	0	0	200	0	0	0	0	400	0	100	0	0	0	300	600	100	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	
03/11/92	50	0	0	0	0	0	0	0	0	0	0	0	0	200	0	25	0	0	0	50	200	25	275	10	0	0	0	0	0	0	0	0	0	0	0	0	
03/16/92	300	0	0	0	0	0	0	0	100	0	0	0	0	0	0	10	0	0	0	300	100	10	410	0	0	200	0	0	0	0	0	0	0	0	0	0	
03/24/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04/01/92	50	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	150	0	0	0	0	0	0	0	0	0	0	0	0	0	
04/07/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04/14/92	0	0	0	100	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	

Lake Chautauqua

Table 5. Peak numbers of waterfowl aerially inventoried by the Illinois Natural History Survey at Lake Chautauqua EMP site, fall and spring, 1991-1992^a.

	<u>Upper</u> <u>Chautauqua</u>		<u>Lower</u> <u>Chautauqua</u>		<u>Total</u>	
	<u>Fall</u>	<u>Spring</u>	<u>Fall</u>	<u>Spring</u>	<u>Fall</u>	<u>Spring</u>
Dabbling ducks						
Mallard	9,000	650	16,000	10,000	17,550	10,450
American black duck	300	10	320	25	400	30
Northern pintail	1,050	0	500	20	1,550	20
Blue-winged teal	270	0	270	350	320	350
Green-winged teal	400	0	250	125	400	125
American wigeon	500	0	3,000	300	3,000	300
Gadwall	1,000	0	2,400	0	2,800	0
Northern shoveler	0	70	0	300	0	300
All dabbling ducks	9,180	650	21,720	10,200	21,855	10,650
Diving ducks						
Lesser & greater scaup	100	3,000	600	4,000	600	6,800
Ring-necked duck	0	500	100	1,900	100	2,000
Canvasback	100	500	425	4,000	425	4,300
Redhead	25	0	0	0	25	0
Ruddy duck	0	0	0	0	0	0
Common goldeneye	625	200	3,620	50	4,120	250
Bufflehead	25	0	0	0	25	0
All diving ducks	650	4,000	3,620	9,900	4,120	11,4500
Mergansers						
Common merganser	50	50	200	0	200	50
Red-breasted merganser	0	0	0	0	0	0
Hooded merganser	0	0	0	0	0	0
All mergansers	50	50	200	0	200	50
All ducks	9,180	4,450	22,420	17,650	22,335	22,100
Geese						
Canada goose	130	25	100	30	155	55
Snow goose	0	0	0	0	0	0
American coots	1,700	1,000	3,500	3,800	4,300	4,800
Bald eagles						
Adult	9	7	36	3	43	10
Immature	13	6	16	1	27	6
All eagles	22	13	52	4	70	16
Double-crested cormorants	710	30	400	105	810	125
Pelicans	0	0	0	0	0	0

^a The peak number for the entire site may not represent the sum of the peaks for all the compartments because the peak numbers in the various compartments could have occurred on different flight dates.

Table 7. Waterfowl aerial inventory data for each individual flight for Lake Chautauque EMP site, spring 1992.

LAKE CHAUTAUQUA	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	DABBLERS	TOTAL	TOTAL	TOTAL	DUCKS	CG	BSSG	COOT	ADULT	IMM	BALD EAGLE				
																													MERG.	DIVERS	TOTAL	CORN	PEL
Upper Lake Chautauque																																	
02/25/92	650	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0	0	650	200	0	850	20	0	0	0	7	3	0	0		
03/02/92	300	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	310	0	0	310	25	0	0	0	1	0	0	0	0	
03/11/92	100	0	0	0	0	0	0	0	200	100	300	0	0	0	0	0	0	0	0	100	600	0	700	0	0	0	0	1	6	0	0	0	
03/16/92	0	0	0	0	0	0	0	0	800	200	300	0	0	0	0	0	0	0	0	0	1,300	0	1,300	0	0	100	1	1	20	0	0		
03/24/92	450	0	0	0	0	0	0	0	3,000	500	500	0	0	0	0	0	0	0	0	450	4,000	0	4,450	0	0	0	0	0	0	0	10	0	0
04/01/92	50	0	0	0	0	0	0	70	150	200	0	0	0	0	0	50	0	0	0	120	350	50	520	0	0	700	0	0	0	0	0	0	
04/07/92	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	25	0	25	0	0	1,000	0	0	0	30	0	0	
04/14/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	20	0	0	
Lower Lake Chautauque																																	
02/25/92	1,420	0	0	0	0	0	0	0	50	0	20	25	0	50	0	0	0	0	0	1,420	145	0	1,565	0	0	0	0	3	1	0	0	0	
03/02/92	2,400	20	0	0	0	0	0	0	1,200	50	1,300	0	0	0	0	0	0	0	0	2,420	2,550	0	4,970	30	0	700	1	1	0	0	0	0	
03/11/92	2,200	25	20	0	0	300	0	0	4,000	1,900	4,000	0	0	0	0	0	0	0	0	2,545	9,900	0	12,445	0	0	200	2	0	0	0	0	0	
03/16/92	600	0	0	0	100	0	0	0	600	100	500	0	0	0	0	0	0	0	0	700	1,200	0	1,900	5	0	0	0	0	0	0	0	0	
03/24/92	10,000	0	0	0	125	0	0	0	3,800	600	3,000	0	0	50	0	0	0	0	0	10,200	7,450	0	17,650	0	0	300	0	0	0	0	0	0	
04/01/92	100	0	0	0	0	0	0	0	200	0	0	0	0	0	0	0	0	0	0	120	200	0	320	0	0	700	0	0	20	0	0	0	
04/07/92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,800	0	0	10	0	0		
04/14/92	20	0	0	350	25	0	0	0	300	250	0	0	0	0	0	0	0	0	0	695	250	0	945	5	0	325	0	0	0	105	0	0	
Lake Chautauque Total																																	
02/25/92	2,070	0	0	0	0	0	0	0	50	0	20	25	0	250	0	25	0	0	0	2,070	345	25	2,440	20	0	0	10	4	0	0	0	0	
03/02/92	2,700	30	0	0	0	0	0	0	1,200	50	1,300	0	0	0	0	0	0	0	0	2,730	2,550	0	5,280	55	0	700	2	1	0	0	0	0	0
03/11/92	2,300	25	20	0	0	300	0	0	4,200	2,000	4,300	0	0	0	0	0	0	0	0	2,645	10,500	0	13,145	0	0	200	0	6	0	0	0	0	
03/16/92	600	0	0	0	100	0	0	0	1,400	300	800	0	0	0	0	0	0	0	0	700	2,500	0	3,200	5	0	100	1	1	20	0	0	0	
03/24/92	10,450	0	0	0	125	0	0	0	6,800	1,100	3,500	0	0	50	0	0	0	0	0	10,650	11,450	0	22,100	0	0	300	0	0	0	10	0	0	
04/01/92	150	0	0	0	0	0	0	90	350	200	0	0	0	0	50	0	0	0	0	240	550	50	840	0	0	1,400	0	0	20	0	0	0	
04/07/92	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	25	0	25	0	0	4,800	0	0	40	0	0	0	
04/14/92	20	0	0	350	25	0	0	0	300	250	0	0	0	0	0	0	0	0	0	695	250	0	945	5	0	350	0	0	0	125	0	0	