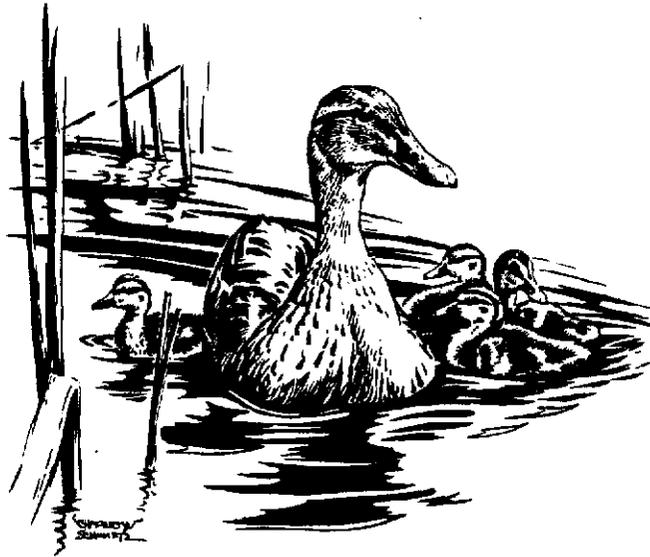


# ILLINOIS NATURAL HISTORY SURVEY

CENTER FOR WILDLIFE ECOLOGY



**1993-1994 Aerial Waterfowl Inventories of Chautauqua National Wildlife  
Refuge and Peoria Lake Environmental Management Program Sites**

**Annual Report**

**by**

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**Illinois Natural History Survey**

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The purpose of this project was to aerially inventory waterfowl (ducks and geese), bald eagles, double-crested cormorants, and pelicans during fall and spring, 1993-1994 at Upper Peoria Lake and Lake Chautauqua EMP sites. Inventories were conducted from light aircraft flying at low levels. Fall inventories were made on 7 and 15 September; 4, 12, 18, and 26 October; 1, 9, 15, 22, and 29 November; 7 and 13 December; and 4 January. Spring inventories were made on 14 and 21 February; 2, 7, 14, 22, and 29 March; and 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). These flights will provide background information on the waterfowl use of these areas before the initiation of the EMP project construction which began in summer 1994 at both Chautauqua and upper Peoria Lake.

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

Common name		Abbreviation
<b>Dabbling ducks</b>		
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
<b>Diving ducks</b>		
Lesser and greater scaup	=	SCAUP
Ring-necked duck	=	RN
Canvasback	=	CNVB
Redhead	=	RH
Ruddy duck	=	RDY
Common goldeneye	=	GLD
Bufflehead	=	BH
<b>Mergansers</b>		
Common merganser	=	CM
Red-breasted merganser	=	RBM
Hooded merganser	=	HM
<b>Geese</b>		
Canada goose	=	CG
Snow goose	=	B&SG
American coot	=	COOT
<b>Bald Eagles</b>		
Adult	=	AD
Immature	=	IMM
Double-crested cormorant	=	CORM
Pelican	=	PEL

## **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, 1993-1994<sup>a</sup>.

	Upper Peoria Lake		Forested Wetland Management Area		Total EMP site	
	Fall	Spring	Fall	Spring	Fall	Spring
<b>Dabbling ducks</b>						
Mallard	1,000	100	0	0	1,000	100
American black duck	50	0	0	0	50	0
Northern pintail	50	0	0	0	50	0
Blue-winged teal	0	0	0	0	0	0
Green-winged teal	50	0	0	0	50	0
American wigeon	0	0	0	0	0	0
Gadwall	0	0	0	0	0	0
Northern shoveler	0	0	0	0	0	0
All dabbling ducks	1,050	100	0	0	1,050	100
<b>Diving ducks</b>						
Lesser & greater scaup	0	50	0	0	0	50
Ring-necked duck	0	50	0	0	0	50
Canvasback	0	0	0	0	0	0
Redhead	0	0	0	0	0	0
Ruddy duck	0	0	0	0	0	0
Common goldeneye	3,500	25	0	0	3,500	25
Bufflehead	0	0	0	0	0	0
All diving ducks	3,500	50	0	0	0	50
<b>Mergansers</b>						
Common merganser	1,000	400	0	0	1,000	400
Red-breasted merganser	0	0	0	0	0	0
Hooded merganser	0	0	0	0	0	0
All mergansers	1,000	400	0	0	1,000	400
<b>All ducks</b>	<b>4,500</b>	<b>500</b>	<b>0</b>	<b>0</b>	<b>4,500</b>	<b>500</b>
<b>Geese</b>						
Canada goose	50	0	0	0	50	0
Snow goose	0	0	0	0	0	0
American coot	0	600	0	0	0	600
<b>Bald eagles</b>						
Adult	0	0	0	0	0	0
Immature	0	0	0	0	0	0
All eagles	0	0	0	0	0	0
Double-crested cormorant	25	0	0	0	25	0
Pelican	0	0	0	0	0	0

<sup>a</sup> 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.





# LAKE CHAUTAUQUA

Table 5. Peak numbers of waterfowl aerially inventoried by the Illinois Natural History Survey at Lake Chautauqua EMP site, fall and spring, 1993-1994<sup>a</sup>.

	Upper Chautauqua		Lower Chautauqua		Total EMP site	
	Fall	Spring	Fall	Spring	Fall	Spring
<b>Dabbling ducks</b>						
Mallard	700	150	12,400	1,400	12,430	1,400
American black duck	0	0	300	0	300	0
Northern pintail	0	0	500	0	500	0
Blue-winged teal	0	0	0	0	0	0
Green-winged teal	0	0	0	0	0	0
American wigeon	50	25	300	0	300	25
Gadwall	0	0	1,000	0	1,000	0
Northern shoveler	0	0	0	0	0	0
All dabbling ducks	700	150	14,000	1,400	14,030	1,400
<b>Diving ducks</b>						
Lesser & greater scaup	0	0	600	200	600	200
Ring-necked duck	100	5	1,200	0	1,200	0
Canvasback	0	0	800	300	800	300
Redhead	0	0	0	0	0	0
Ruddy duck	0	0	100	0	100	0
Common goldeneye	50	100	400	250	450	350
Bufflehead	220	0	20	0	240	0
All diving ducks	220	100	2,300	500	2,300	500
<b>Mergansers</b>						
Common merganser	150	600	100	700	250	800
Red-breasted merganser	0	0	0	0	0	0
Hooded merganser	0	0	0	0	0	0
All mergansers	150	600	100	700	250	800
<b>All ducks</b>						
	800	750	16,300	2,400	16,330	2,400
<b>Geese</b>						
Canada goose	300	0	300	25	400	25
Snow goose	0	0	0	25	0	25
American coot	600	25	1,000	325	1,225	350
<b>Bald eagles</b>						
Adult	11	11	7	9	18	20
Immature	6	9	2	4	8	10
All eagles	17	14	9	10	26	24
Double-crested cormorant	425	200	300	400	590	545
Pelican	0	0	0	0	0	0

<sup>a</sup> 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 6. Waterfowl aerial inventory data for each individual flight for Lake Chautauqua EMP site, fall 1993.

MALLARD BLK	PNT	BMT	GNT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DABBLERS	TOTAL MERG. DUCKS	CG	B&SG	COOT	BALD EAGLE	
																						AD	TOT
Upper Lake Chautauqua																							
09/07/93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09/15/93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/04/93	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	25	0	0	0	0
10/12/93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/18/93	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	50	0	0	0	0
10/26/93	500	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	550	0	550	0	600	0	0
11/01/93	700	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	700	100	800	0	0	0	0
11/09/93	350	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350	0	350	0	0	0	0
11/15/93	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	200	0	0	0	0
11/22/93	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	30	0	70	0	0
11/29/93	100	0	0	0	0	0	0	0	0	0	0	0	220	0	0	0	100	0	320	0	0	0	0
12/07/93	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	500	0	0	0	0
12/13/93	0	0	0	0	0	0	0	0	0	0	0	50	0	150	0	0	50	150	200	0	0	0	0
01/04/94	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	0	20	0	0	0	0
Lower Lake Chautauqua																							
09/07/93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09/15/93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/04/93	100	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	100	30	130	0	0	0	0
10/12/93	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	200	0	0	0	0
10/18/93	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	200	0	0	0	0
10/26/93	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	200	0	0	0	0
11/01/93	5,500	150	0	100	200	0	300	400	100	0	0	0	0	0	0	0	6,450	800	7,250	50	0	0	0
11/09/93	4,000	0	0	0	0	0	500	0	800	0	0	0	0	0	0	0	4,500	1,300	5,800	0	0	0	0
11/15/93	2,100	110	0	0	500	0	500	100	0	0	0	0	0	0	0	0	2,710	600	3,310	0	0	0	0
11/22/93	12,400	300	0	0	1,000	0	600	1,200	400	0	100	0	0	0	0	0	14,000	2,300	16,300	0	0	0	0
11/29/93	3,725	150	0	0	25	0	0	100	0	0	0	10	20	0	0	0	3,900	130	4,030	200	0	0	0
12/07/93	2,000	50	0	0	0	0	0	0	0	0	0	0	0	50	0	0	2,050	0	2,100	100	0	0	0
12/13/93	800	20	0	0	0	0	0	0	0	0	0	400	0	100	0	0	820	400	1,220	0	0	0	0
01/04/94	800	0	0	0	0	0	0	0	0	0	0	300	0	0	0	0	800	300	1,100	300	0	0	0
Lake Chautauqua Total																							
09/07/93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09/15/93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/04/93	125	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	125	30	155	70	0	0	0
10/12/93	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	200	0	0	0	0
10/18/93	700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	700	0	700	0	0	0	0
10/26/93	700	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	750	0	750	0	0	0	0
11/01/93	6,200	150	500	100	200	0	300	500	100	0	0	0	0	0	0	0	7,150	900	8,050	100	0	0	0
11/09/93	4,350	0	0	0	0	0	500	0	800	0	0	0	0	0	0	0	4,850	1,300	6,150	0	0	0	0
11/15/93	2,300	110	0	0	500	0	500	100	0	0	0	0	0	0	0	0	2,910	600	3,510	0	0	0	0
11/22/93	12,430	300	0	0	1,000	0	600	1,200	400	0	100	0	0	0	0	0	14,030	2,300	16,330	60	0	0	0
11/29/93	3,825	150	0	0	25	0	0	100	0	0	0	10	240	0	0	0	4,000	350	4,350	300	0	0	0
12/07/93	2,500	50	0	0	0	0	0	0	0	0	0	0	0	50	0	0	2,550	0	2,600	400	0	0	0
12/13/93	800	20	0	0	0	0	0	0	0	0	0	450	0	250	0	0	820	450	1,520	200	0	0	0
01/04/94	800	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0	800	320	1,120	300	0	0	0

Table 7. Waterfowl aerial inventory data for each individual flight for Lake Chautauqua EMP site, spring 1994.

MALLARD BLK	PNT	BMT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DABLERS	TOTAL DIVERS	TOTAL MERG.	TOTAL DUCKS	CG	B&SG	C00T	BALD EAGLE		CORM	PEL			
																								AD	TOT					
Upper Lake Chautauqua																														
02/14/94	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	20	0	0	0	0	11	3	14	0	0	
02/21/94	0	0	0	0	0	0	0	0	0	0	0	100	0	200	0	0	100	100	200	400	0	0	0	0	3	5	12	0	0	
03/02/94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	12	0	0	0	
03/07/94	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	1	4	0	0	
03/14/94	0	0	0	0	0	0	0	0	0	0	0	0	0	600	0	0	150	0	600	750	0	0	0	0	3	0	3	0	0	
03/22/94	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	
03/29/94	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	200	0
04/07/94	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	0	0	0	
04/14/94	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	25	0	0	0	0	0	0	0	145	0
Lower Lake Chautauqua																														
02/14/94	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	400	0	300	700	0	0	0	0	9	1	10	0	0	
02/21/94	0	0	0	0	0	0	50	0	0	0	0	250	0	400	0	0	100	300	400	800	25	0	0	0	4	1	5	0	0	
03/02/94	0	0	0	0	0	0	0	0	0	0	0	0	0	700	0	0	300	0	700	1,000	0	0	0	0	5	4	9	0	0	
03/07/94	0	0	0	0	0	0	100	0	0	0	0	0	0	350	0	0	100	100	350	550	20	0	0	0	3	0	3	0	0	
03/14/94	0	0	0	0	0	0	0	0	0	0	150	0	0	200	0	0	150	200	350	0	25	0	0	0	3	0	3	0	0	
03/22/94	0	0	0	0	0	0	0	0	300	0	0	0	0	500	0	0	1,400	500	2,400	25	0	0	0	0	0	0	0	0	0	
03/29/94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	25	0	0	150	0	0	0	0	0	0	
04/07/94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	325	0	0	0	0	0	310	0
04/14/94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	150	0	0	150	20	0	0	0	0	0	0	0	400	0
Lake Chautauqua Total																														
02/14/94	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	400	0	320	720	0	0	0	0	20	4	24	0	0	
02/21/94	0	0	0	0	0	0	50	0	0	0	0	350	0	600	0	0	200	400	600	1,200	25	0	0	0	7	10	17	0	0	
03/02/94	0	0	0	0	0	0	0	0	0	0	0	0	0	700	0	0	300	0	700	1,000	0	0	0	0	12	9	21	0	0	
03/07/94	0	0	0	0	0	0	100	0	0	0	0	0	0	350	0	0	100	100	350	550	20	0	0	0	6	1	7	0	0	
03/14/94	0	0	0	0	0	0	0	0	0	0	150	0	0	800	0	0	150	150	800	1,100	0	25	0	0	6	0	6	0	0	
03/22/94	0	0	0	0	0	0	0	0	300	0	0	0	0	500	0	0	1,400	500	2,400	25	0	0	0	0	0	0	0	0	0	
03/29/94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	25	0	0	150	0	0	0	0	0	200	0
04/07/94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350	0	0	0	0	0	310	0
04/14/94	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	175	175	0	0	175	20	0	0	0	0	0	0	0	545	0