

RAPTORS AND WATERBIRDS

ON THE MAURICE RIVER

CUMBERLAND COUNTY, NJ

*The TWENTY-FIRST YEAR
of an Ongoing and Long-term Avian Use Study*

Seasonal Summary: July 2007 through June 2008

including WINTER, 2007-2008

Research sponsored by

Citizens United to Protect the Maurice River and its Tributaries, Inc.



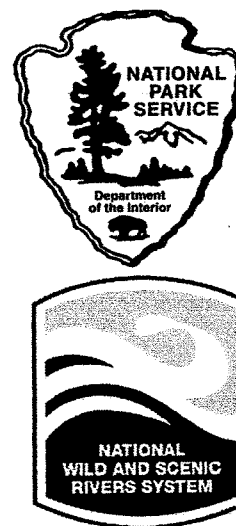
**By Clay Sutton and James Dowdell
September 1, 2008**

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On the cover:

Spring migratory shorebirds (primarily Dunlin, Semipalmated Sandpiper, and Short-billed Dowitcher) at Heislerville Wildlife Management Area (see page 13 and page 18).

– Photo by Pat Sutton, May 17, 2008

RAPTORS AND WATERBIRDS ON THE MAURICE RIVER

July 2007 to June 2008

The TWENTY-FIRST FIELD SEASON

of an Ongoing and Long-term Avian Use Study

Introduction and Overview:

Avian use studies carried out on the Maurice River during 2007 and 2008 marked the twenty-first field season of detailed surveys of the status and distribution of the avifauna of the Maurice River. These studies were again carried out under the auspices of Citizens United to Protect the Maurice River and its Tributaries.

Because an in-depth summary report of the first twenty years of study (in the form of a journal article) is currently in the final stages of preparation and will soon be published, this current report will only detail the specific findings of the twenty-first field season of study. Minimal discussion will be offered in this year twenty-one report, deferring most analysis and discussion of status and trends to the upcoming larger report that will analyze and reflect on the first twenty years of monitoring effort.

Also, because all of the first twenty year's individual reports are available on-line (on the CU website: www.cumauriceriver.org/) no discussion of methodology or techniques will be offered in this short-form year twenty-one report. Visit the website for in-depth review of all methodologies and sampling locations, as well as the goals and objectives of this long-term project. The detailed findings and discussion of each of the twenty years of study are also found in these archived seasonal reports.

In-depth analysis of findings to date were prepared at the five-year, ten-year, and fifteen-year milestones of this long-term study. The upcoming twenty year report will summarize and analyze the project to date, and a twenty-five year report is planned as well (at the possible conclusion of this long-term research and monitoring effort in 2012).

Findings:

The results of the Maurice River Raptor and Waterbird Survey for the period July 2007 through June 2008 are shown in **Table 1**. Ten full surveys were carried out during the core winter

period (December 6, 2007, to March 27, 2008). In addition, five full surveys and six partial surveys were conducted in both the fall period and spring period of the study cycle. Partial surveys primarily targeted shorebird use of the lower river and were conducted on the lower Maurice River only: East Point, Heislerville Wildlife Management Area [WMA], Leesburg, and the Bivalve Estuary Enhancement Project [EEP] site.

Spring and fall surveys are also shown in Table 1, but are not included in the core winter season *average* shown in the table. Peak winter season daily high counts for key species are shown in **boldface**, although in a number of cases, spring totals exceed the peak core season winter count. Because spring and fall surveys primarily targeted shorebirds, peak counts are boldfaced for shorebird species in the spring and fall seasons in Table 1.

As in the past, comparative studies were conducted on the Cohansey River and on the Salem River as an adjunct to the Maurice River studies. The Cohansey River was sampled five times and the Salem River was sampled three times in winter 2007-2008. Cohansey River and Salem River winter raptor and waterbird surveys are shown in **Table 2**. Data from these “comparison rivers” will be fully explored and analyzed in the upcoming twenty-year in-depth report / journal article.

Adjacent to the Maurice River, Canada Goose numbers on the Bayside State Prison grounds were again estimated (as in past seasons); birds were counted from Route 47. Most if not all Bayside geese use the Maurice River for roosting and feeding, and these counts offer insight to regional goose populations and the potential for herbivory on Maurice River wild rice marshes. The numbers are shown below:

**2007-2008
Canada Geese Populations
Bayside State Prison Grounds**

Date	Number
07/31/07	120
08/23/07	265
09/18/07	195
10/30/07	850
12/06/07	840
01/03/08	950
01/15/08	925
01/28/08	740
02/14/08	375
03/01/08	960
03/13/08	600
03/27/08	340
04/30/08	35
05/14/08	124

TABLE 1
Maurice River
Raptor and Waterbird Survey
July 2007 through June 2008

		FALL PERIOD							WINTER PERIOD										SPRING PERIOD				
DATE	7/31	8/23	9/18	10/30	11/16	11/27	12/6	12/18	12/23	1/3	1/15	1/28	2/14	3/1	3/13	3/27	AVG	4/9	4/30	5/14	5/23	6/2	
			*		*	*			**									*			*	*	
LOONS to CORMORANTS																							
Red-throated Loon																							
Common Loon													1			2							
Pied-billed Grebe							3								1			1	1				
Horned Grebe																1							
Northern Gannet																		5					
Brown Pelican	17																						
Dbl-cr Cormorant	86	225	192	209	45	3								7	59			75	279	109	60	46	
BITTERNS to VULTURES																							
American Bittern				1																			
Least Bittern																						1	
Great Blue Heron	5	21	5	18	14	9	9	23	6	19	16	16	24	5	10	20		3	1	2		2	
Great Egret	43	112	48	10	5	1		1	3	2	5	1	2	2		19		31	10	16	12	32	
Snowy Egret	58	432	178	1	3	1		1								5		53	53	94	76	59	
Green Heron		1																		1	2		
Black-cr Nt-Heron	1			2				1	1	9		1				2		10	4	21	15	17	
Yellow-cr Nt-Heron																			3				
Glossy Ibis	12	2																16	30	41	27	170	
Black Vulture		3	4	20	17	10	26	10	2	2	10	13	12	9	27	7	12.9	21	3	3	6	3	
Turkey Vulture	61	82	78	113	68	52	93	90	8	64	88	107	74	75	133	90	90.4	23	78	77	41	68	
WATERFOWL																							
Snow Goose				100		50	127	200	10	2650	3750	5040	1200	1620	3871	491	2105						
Canada Goose	37	20	2	90	6	2	154	107	2	147	189	987	692	310	199	179	329	91	89	49	12	41	
Mute Swan	12	10	6	11	8	10	10	17	8	27	22	14	12	14	10	25		17	14	14	10	20	
Wood Duck		2					8								9	1				1			

Peak winter and yearly counts boldfaced
Avg shown for core winter season (12/6/07-3/27/08)

* Survey on lower river only (East Pt, Heislerville WMA, Leesburg)
** not included in winter average due to weather (heavy rain)

TABLE 1
Maurice River
Raptor and Waterbird Survey
July 2007 through June 2008

		FALL PERIOD							WINTER PERIOD							SPRING PERIOD						
DATE		7/31	8/23	9/18	10/30	11/16	11/27	12/6	12/18	12/23	1/3	1/15	1/28	2/14	3/1	3/13	3/27	4/9	4/30	5/14	5/23	6/2
				*		*	*			**								*			*	*
Waterfowl (cont.)																						
Gadwall						1		3	15	3		6			36	36	101	131			2	
American Wigeon									1			1		3	26	28	26	13				
Am Black Duck	1	284	8	145	110	582	467	833	146	146	418	372	903	780	607	1274	1048	592	79	37	30	17
Mallard	4	26		45	4	13	328	477	19	19	324	528	632	649	515	387	131	14	5	7	2	2
Blue-winged Teal																2	4	8				
Northern Shoveler					2		7		4								29	8				
Northern Pintail			2		22	4	18	256	304		308	482	305	449	928	790	60	17				
Green-winged Teal			8		5		85	740			10	386	324	443	1703	4180	5850	1525	2970	87	6	
Common Teal												1										
Canvasback									1						6	31	12					
Ring-necked Duck									1	50	95	80	220	35	62	30						
Greater Scaup						2				1		1	5			6	6	2				
Lesser Scaup					12	2	17	19	22	9		3	8	11	5	4	22	35				
Scaup (sp.)						38	5			6	3	13	38	20								
Surf Scoter					4		1															
Black Scoter					1																	
Scoter (sp.)					20		50	5									20	1				
Long-tailed Duck						3	1	5	2	1					2							
Bufflehead					42	80	120	161	178	100	26	237	229	170	126	340	288	122				
Com. Goldeneye							2	2	22	3	2	1	52	70	5	6	3					
Hooded Merganser					2	1			1	2	9	2	12	34	53	30	16					
Com. Merganser													14	5	6	2	12					
Red-br Merganser								2	7	4	12	99	82	110	47	64	69	53	7			
Ruddy Duck					88	72	16	34	41	32		44	16	9		18	37	15	1			

* Survey on lower river only (East Pt, Heislerville WMA, Leesburg)
 ** not included in winter average due to weather (heavy rain)

Peak winter and yearly counts boldfaced
 Avg shown for core winter
 season (12/6/07-3/27/08)

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Raptor and Waterbird Survey
July 2007 through June 2008

		FALL PERIOD							WINTER PERIOD									SPRING PERIOD				
DATE	7/31	8/23	9/18	10/30	11/16	11/27	12/6	12/18	12/23	1/3	1/15	1/28	2/14	3/1	3/13	3/27	4/9	4/30	5/14	5/23	6/2	
			*		*	*			**								*			*	*	
DIURNAL RAPTORS																						
Osprey	75	91	11	4											4	50	19	62	82	26	41	
Bald Eagle	2	8	4	18	4	1	15	19	1	19	6	25	19	14	16	19	16.9	7	8	10	5	
Northern Harrier	1	2	5	36	17	15	28	31	1	35	40	33	27	31	30	38	28.1	13	2	6	2	
Sharp-sh Hawk			10	31	2	3	4	5		1	3	2	4	2	4	2	3	1				
Cooper's Hawk		1	1	13	2		4	3	1	1	6	3	1	3	4	1	2.89	1	1	3	1	
Northern Goshawk				1			1	1									0.22					
Red-sh Hawk					1			1	1	2	1	1	4	1			1.11					
Red-tailed Hawk	16	12	5	29	18	18	47	39	1	32	45	44	59	45	50	25	42.9	2	18	19	6	
Rough-leg. Hawk													1									
Golden Eagle							1					1	1		1		0.44					
American Kestrel			6	5	2		3	2		2	2	1	2	1	1	1	1.67	2	2			
Merlin			2		2							1							1			
Peregrine Falcon	2	2	2	2			1	1				1	2	1			0.67	1	1	1	1	
TOTAL RAPTORS			122	233	116	89																
HOURS			3	4	3	3																
	560 total raptors in 13 hours = 43 hawks / hour																					
GROUSE to CRANES																						
Ring-nk Pheasant						1		1							1	2						
Wild Turkey		2								25			6			37	12	4	1	2		
Clapper Rail	10	9	2	8					1								14	14	14	9	18	
King Rail																	1		1			
American Coot																	1					
Sandhill Crane					2																	

* Survey on lower river only (East Pt, Heislerville WMA, Leesburg)
 ** not included in winter average due to weather (heavy rain)

Peak winter and yearly counts boldfaced
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DATE	7/31	8/23	9/18	10/30	11/16	11/27	12/6	12/18	12/23	1/3	1/15	1/28	2/14	3/1	3/13	3/27	4/9	4/30	5/14	5/23	6/2
			*		*	*			**								*			*	*
SHOREBIRDS																					
Black-bellied Plover		69	29	35	23		20	8	6	4		15	3			42	6	95	495	296	225
Semipalmated Plover	11	526																28	1015	2155	275
Killdeer	1	3		2	1		10	10		17	20	4	2	3		3	2	2	7	2	2
Am Oystercatcher																		2			
Greater Yellowlegs	44	21	102	61	110	13	5	26	1	10	57	16	36	53	91	152	172	260	29	2	
Lesser Yellowlegs	30	22	42	1	2		2	33		3			1	6		25	149	575	53	2	
Solitary Sandpiper																	1				
Willet		3															1	53	24	11	11
Spotted Sandpiper	3	1																2	7	6	
Ruddy Turnstone		2																	123	18	59
Red Knot		1																55	52	7	2
Sanderling	10	326								8			21	11					4	14	16
Semipalmated Sdp	2135	2520	12															185	8300	14950	4750
Western Sandpiper	4	14					2	1		2							1	131	404	182	
Least Sandpiper	52	74																1	1	4	2
Wh-rump. Sandpiper		6																2		1	
Pectoral Sandpiper		2																			
Dunlin				1621	1100	170	1717	2295	29	1310	65	585	6	475		1242	8800	6100	5250	14000	525
Curlew Sandpiper																			1	3	
Ruff																	1				
Sh-billed Dowitcher	925	550	62														23	1248	4606	12334	856
Lg-billed Dowitcher																		1			
Wilson's Snipe				2			2	1		1	8		1		11						
Am. Woodcock							1			1											
unid. Shorebird	695	900																5000	8000	1500	
TOTAL SHOREBIRDS	3910	5040															9156	13740	28370	45487	6723

Peak winter and yearly counts boldfaced
 * Survey on lower river only (East Pt, Heislerville WMA, Leesburg)
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		FALL PERIOD							WINTER PERIOD								SPRING PERIOD				
DATE	7/31	8/23	9/18	10/30	11/16	11/27	12/6	12/18	12/23	1/3	1/15	1/28	2/14	3/1	3/13	3/27	4/9	4/30	5/14	5/23	6/2
			*		*	*			**								*			*	*
JAEGERS to ALCIDS																					
Laughing Gull	✓	✓	✓	✓	1											5	60	✓	✓	✓	✓
Bonaparte's Gull											3						132				
Ring-billed Gull	15	✓	✓	✓	✓	✓	✓	✓	108	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	25
Herring Gull	✓	✓		✓	✓	✓	✓	✓	531	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lesser Bl-bkd Gull						1															
Gt Bl-backed Gull	✓	✓	✓	✓	✓	✓	✓	✓	50	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gull-billed Tern																			2		
Caspian Tern	2	7	1	1														1			
Royal Tern			1																		
Forster's Tern	116	228	73	182	1												8	170	89	36	90
Least Tern	3																		8		
Black Skimmer		18		1														2	285	185	101
PIGEONS to WOODPECKERS																					
E. Screech-Owl														1							
Great Horned Owl										2											
Short-eared Owl										1											
N. Saw-whet Owl																1					
Belted Kingfisher		6	4	4	1	3	3	4	2	4	4	2	4	2	3	4					2

* Survey on lower river only (East Pt, Heislerville WMA, Leesburg)
** not included in winter average due to weather (heavy rain)

Peak winter and yearly counts boldfaced
Avg shown for core winter
season (12/6/07-3/27/08)

TABLE 2
Cohansey River and Salem River
Winter Raptor and Waterbird Survey
2007 -- 2008

	COHANSEY R.						SALEM R.			
DATE	12/30	1/7	1/25	3/2	3/25	AVG.	1/6	2/23	3/29	AVG.
	*									
LOONS to CORMORANTS										
Red-throated Loon	1									
Common Loon		1								
Pied-billed Grebe			1						2	
Horned Grebe		4								
Double-cr Cormorant	2				1				45	
BITTERNS to VULTURES										
Great Blue Heron	7	8	7	8	1		7	10	22	
Great Egret							1		8	
Black Vulture	4	10	57	1	22	19	5	21	91	39
Turkey Vulture	28	78	98	88	154	89	88	121	133	114
WATERFOWL										
Snow Goose	6258	13580	11350	4300	3950	7888	2900		50	983
Canada Goose	682	2600	572	1620	252	1145	2070	1300	133	1168
Mute Swan		4	4	2	4		72	73	170	
Tundra Swan							26	93		
Wood Duck				1	4			2	34	
Gadwall			2	2	26		20	65	140	
American Wigeon					16		12	2	334	
Am Black Duck	28	247	211	150	126	152	152	6	12	57
Mallard	61	109	102	252	103	125	107	64	13	61
Blue-winged Teal									2	
Northern Shoveler							1	7	23	
Northern Pintail		2	1	2	30	7	59	634	14	236
Green-winged Teal	60	2	172	45	72	70			1111	371
Canvasback										
Ring-necked Duck		2		4	10				9	
Greater Scaup	3									
Lesser Scaup	25			8						
Scaup (sp.)	250		5							
Bufflehead	5	4	11	30	12					
Com. Goldeneye				1						
Hooded Merganser	10	2	38	6						
Com. Merganser		20	6				23	273		
Red-br Merganser		1			4					
Ruddy Duck		2	10							

* 12/30 numbers gleaned from Cumberland County Christmas Bird Count (hence large owl totals)

TABLE 2
Cohansey River and Salem River
Winter Raptor and Waterbird Survey
2007 -- 2008

	COHANSEY R.						SALEM R.			
DATE	12/30	1/7	1/25	3/2	3/25	AVG.	1/6	2/23	3/29	AVG.
	*									
DIURNAL RAPTORS										
Osprey					6				5	
Bald Eagle	15	22	14	16	29	19.2	17	10	16	14.3
Northern Harrier	31	35	40	25	37	37	26	19	23	27
Sharp-sh Hawk	4	1	1	1		1.4			1	0.67
Cooper's Hawk	3	3			1	1.4	1	1	3	1.67
Northern Goshawk				1						
Red-sh Hawk	4		1			1	2			0.67
Red-tailed Hawk	24	30	46	40	42	36	22	10	47	26
Rough-legged Hawk										
American Kestrel	2	2	1	1	5	2.2	3		2	1.67
Merlin	1	1	1			0.6				
Peregrine Falcon	2					0.4			1	0.33
GROUSE to CRANES										
Wild Turkey	24		60	46	42				13	
Clapper Rail		1			1					
American Coot							120	220	172	
Sandhill Crane	15	15								
Common Crane	1	1								
SHOREBIRDS										
Killdeer	4			9			35	21	4	
Greater Yellowlegs	3	2	1		10				26	
Lesser Yellowlegs					4				29	
Dunlin	387	6	33					6	1000	
Wilson's Snipe	2		4				100		106	
American Woodcock	1									
JAEGERS to ALCIDS										
Laughing Gull									257	
Ring-billed Gull	27	√	√	√	√		√	√	√	
Herring Gull	65	√	√	√	√		√	√	√	
Gt Bl-backed Gull	2	√	√	√	√		√	√	√	
PIGEONS to WOODPECKERS										
Barn Owl	2									
E. Screech-Owl	58									
Great Horned Owl	43	2		1					1	
Long-eared Owl	1									
Short-eared Owl		2								
Belted Kingfisher	2	2	2		1			1		

* 12/30 numbers gleaned from Cumberland
County Christmas Bird Count (hence large
owl totals)

Comparison to Previous Season's Findings:

An in-depth comparison of the first twenty years of study will be included in the soon to be published twenty-year summary report. The twenty-first season of study (2007-2008) produced findings well in line with the previous studies, particularly the most recent five-year segment.

In the core winter studies, winter populations of a number of species of waterfowl, particularly diving ducks, were down in winter 2007-2008. This was probably due to the mild winter.

Although peak counts were high, winter averages for both Snow Geese and Canada Geese were normal. While Black Duck numbers were average and remarkably similar to 2007-2008 numbers, Mallard posted a modest gain over both the previous year and previous five-year segment. Northern Pintail numbers were also slightly higher in 2007-2008, yet numbers of all three of these key "puddle duck" species remain well below numbers recorded during the early years of this long-term Maurice River Study.

Green-winged Teal were present in exceptional numbers in winter and early spring of 2008. The peak (5,850 on March 27, 2008) and average (1,525) for Green-winged Teal are new all-time records for the Maurice River. Most of the teal were recorded at the Bivalve EEP Site, an area that has proven to be ideally suited for this small duck.

Bald Eagle numbers were exceptional at all seasons. The core winter season average was quite similar to the previous year. The 25 eagles counted on January 28, 2008, fell short of February 15, 2007's record of 31 (yet the 25 ultimately recorded on that day is felt to be a very conservative estimate).

Most raptors were slightly above recent averages in winter 2007-2008. An excellent four Red-shouldered Hawks were seen on February 14, 2008, and Golden Eagles were seen on four occasions. For the first time in a number of years, Northern Goshawks were recorded – twice in winter and once in fall. American Kestrel only slightly reversed their recent downward trend (free fall . . .), with two individuals wintering along the river in 2007-2008.

Comparisons to the Cohansey and Salem Rivers:

As in recent years, comparative winter counts were conducted on the Cohansey River and Salem River in an attempt to gain perspective on Maurice River findings. Five counts were conducted on the Cohansey River and three on the Salem River. Findings largely confirmed and corroborated previous seasons' results. Due to the extensive agriculture in the region, geese are far more abundant on the Cohansey River than on the Maurice River. And, due to less brackish intertidal habitat (and a lack of impoundments such as Bivalve EEP), duck populations are far lower on the Cohansey River. Raptor populations are remarkably similar on the Maurice and the Cohansey. Because the comparison Salem River studies were only in their third year, comparisons and contrasts to the Maurice River are as yet somewhat unclear, and will continue to be explored in future winter seasons.

Fall Migration on the Maurice River:

The use of the Maurice River by fall migrants is significant. Migration (with its attendant issues of flight strategies and stopover requirements) is a particularly perilous and stressful period of a bird's life cycle. Migration is also a major factor in subsequent winter bird populations; for raptors and waterfowl, migration often ends at some point during the migratory timetable and route when quality habitat is encountered. Fall migration following the Delaware Bayshore west is a significant causal factor in the large numbers of birds that remain to overwinter along the Delaware Bayshore.

Six counts were conducted during the fall migration period, from late July through November. Significant numbers of herons, egrets, and Glossy Ibis were found along the river, primarily at (but not limited to) the Heislerville WMA and Bivalve EEP site. An excellent fall count of 582 American Black Ducks were counted on November 27, 2007, proving that numbers build well before the core winter counts begin.

On four dates from September 18 to November 27, 2007, autumn hawk migration along the Delaware Bayshore was monitored at East Point, Heislerville WMA, and Bivalve. In 13 hours of targeted hawk counting, 560 raptors of 12 species were tallied, for an excellent average of 43 hawks per hour. On October 30, 2007, a total of 18 Bald Eagles were counted (a mixture of both "locals" and migrants), a very good fall count for the Maurice River.

Fall 2007 studies also again documented very large numbers of shorebirds using the lower river in early autumn. Eighteen species of shorebirds were found during the period July through November, including 4 American Golden Plover – uncommon on Delaware Bay. Large numbers of Black-bellied Plover, Semipalmated Plover, and yellowlegs were found. Fall migration numbers of Semipalmated Sandpiper, Dunlin, and Short-billed Dowitcher were significant as well.

Although fall numbers in 2007 did not rival those counts typically achieved in spring, counts were none-the-less exceptional in the region. Late summer and fall surveys on the Maurice River in 2007 confirmed and corroborated previous season findings, adding additional proof that the Maurice River is a major fall migration staging area for raptors, waterfowl, waterbirds, and shorebirds.

Spring Migration on the Maurice River:

As well known as the Maurice River is for its high numbers of wintering raptors and waterfowl, the spring numbers of shorebirds and other migrants vie for top billing among the Maurice's many avian wonders.

Five spring counts were conducted in 2008, and the totals from these surveys are also shown in Table 1. As in fall, herons, egrets, and Glossy Ibis abound on the Maurice River in spring. Three Yellow-crowned Night Herons were at Heislerville WMA on April 30 and may well have stayed on to breed in the Black-crowned Night Heron colony that eventually formed there. Waterfowl numbers

continued high through early spring, including respectable counts of 131 Gadwall, 592 Black ducks, and 2,970 Green-winged Teal on April 9.

Spring shorebird counts were exceptional. Bivalve EEP and Heislerville WMA continue to attract huge numbers of shorebirds in spring. Particularly, the NJDEP Division of Fish and Wildlife should be commended for their enlightened management of the Heislerville WMA “shorebird impoundment,” where the spring drawdown to create mudflats supports tens of thousands of shorebirds (see cover photo and photos on page 18).

Amazing high counts of 2,155 Semipalmated Plover, 14,950 Semipalmated Sandpipers, 14,000 Dunlin, and 12,334 Short-billed Dowitcher were achieved. The 575 Lesser Yellowlegs counted on April 30, 2008, is a new spring maxima for all of New Jersey (the previous recorded single location spring maxima for New Jersey was 50). Once again, the lower Maurice River (specifically Heislerville WMA) proved to be *the* place in all of North America to see Curlew Sandpiper (a Eurasian vagrant). At least 3 individuals were recorded there in late May by many observers, and were found on our survey on May 23, 2008. A female Ruff (known as a “Reeve”), another Eurasian vagrant shorebird, was seen and photographed on April 9, 2008. The 45,487 total shorebirds counted on May 23, 2008, are the highest counts ever for the Maurice River, eclipsing the 40,954 total shorebirds recorded on May 17, 2007.

Spring studies also again confirmed that Northern Harriers (Endangered) continue to breed in the Maurice River wetlands. An adult male Northern Harrier was seen from Robbinstown Road on the breeding season date of May 14, and adult females were seen at Bivalve and at East Point on June 2, 2008.

Cooper’s Hawk (Threatened) display flights were noted on May 14, 2008, at the west end of the Maurice River Causeway when two male Cooper’s Hawks appeared to be competing for a female’s attention. An adult female Cooper’s Hawk was at Bivalve on June 2, 2008.

Once again the inclusion of spring counts (as well as fall counts) complimented the core winter season studies and continue to amply prove that the Maurice River is important to birds at all seasons of the year.

Highlights and Other Sightings of Note:

- July 31, 2007 Red-breasted Nuthatch
Galetto Property. Very early record that presaged a major invasion in fall and winter.
- July 31, 2007 3 Least Terns
Heislerville. Adult feeding juvenile proved dispersal to the Maurice River, possibly from local sand plant colonies.
- August 6, 2007 Black Tern
Heislerville (fide Sandra Keller). A rare Cumberland County record for this coastal / pelagic species.
- August 23, 2007 50,000+ Purple Martins
Mauricetown Causeway. At the well known roost along the Maurice River.
- October 30, 2007 “Ipswich Sparrow”
Bivalve. One of very few Cumberland County records; a rare bird away from Atlantic Coast barrier beaches.
- November 16, 2007 Cave Swallow
East Point. Once rare; now an expected late autumn vagrant.
- November 16, 2007 3 Lapland Longspurs. East Point.
- November 16, 2007 2 Sandhill Cranes
East Point (fide Brian Johnson).
- January 3, 2008 Short-eared Owl. East Point.
- January 15, 2008 Common Teal (male) – (also known as Eurasian Green-winged Teal)
Bivalve. An annual occurrence on the Maurice River.
- March 13, 2008 100+ Tree Swallows
Various points. Either early arrivals or birds that successfully wintered.
- April 9, 2008 Ruff (female – known as a “Reeve”). Heislerville.
- May 14, 2008 285 Black Skimmers
Heislerville WMA. A very good number of “spring staging” birds.
- June 2, 2008 1000s of Horseshoe Crabs
Thompson’s Beach boat launch.
- June 2, 2008 100+ Diamond-backed Terrapins
Along beaches at East Point, plus many up on roads / yards laying eggs.

Discussion:

The twenty-first year of raptor and waterbird studies on the Maurice River and the continuing comparative studies on the Cohansey and Salem Rivers were again successful in elucidating avian status, patterns, and concentrations on these major South Jersey rivers. Results clearly confirm and corroborate previous findings for both the Maurice and Cohansey Rivers. Both of these coastal rivers continue to support significant regional populations of raptors, waterfowl, and waterbirds in winter and during migration. Yet in part because the system includes Heislerville WMA and Bivalve EEP, the Maurice River continues as the true gem of the Delaware Bayshore.

Once again these studies were conducted during an extremely warm fall and winter. Autumn 2007 was very warm, with October 10.7 degrees F. warmer than average. Warm falls impact the migration into the region of many raptor and waterfowl species. There is a clear link between fall migration and subsequent wintering populations, and while it varies greatly among species, in general very warm falls simply don't send as many birds south to our area.

The warm autumn was followed by a mild winter. December was 1.7 degrees F. above normal; February was 3.8 degrees above normal, and March 1-18 was 3.4 degrees above the normal average. Total snowfall of 10 inches was 2 inches below normal (although total precipitation was above normal, 17.42 inches compared to a normal average of 11.92 inches for December through March 19). (Source for all above weather data: The National Weather Service in Mount Holly, NJ; data presented is for Atlantic City International Airport.)

Only in January were some icy conditions encountered during surveys, when the impoundments and small creeks were largely blocked by ice. It is well known that colder winters send the most waterfowl and raptors to the region, and particularly concentrate them in open water areas. The winter of 2007-2008 was not such a year, and therefore it is somewhat surprising that Bald Eagle numbers were as high as they were. A number of species of waterfowl posted good totals as well, particularly Green-winged Teal.

There were certainly some interesting examples of the warm winter's effects on birds. At least two Osprey successfully wintered in South Jersey (one on the Great Egg Harbor River and one at Forsythe NWR), probably for the first time ever. Numerous Tree Swallows also wintered in the region – the most in the author's experience. The 100+ Tree Swallows noted on the Maurice River on March 13, 2008, may well have been early spring arrivals, but quite possibly represented birds that wintered somewhere in the region. While Tree Swallows can survive without insects (by feeding on Bayberry and Waxmyrtle berries), they cannot survive the low temperatures of colder winters.

Because some avian-use patterns appear to be changing, the importance of this ongoing long-term avian research on the Maurice River becomes all the more evident and relevant. Twenty-one years of bird study on the Maurice River have given us excellent insight into the wildlife phenology of the river (phenology is the relation of climate to periodic wildlife phenomena).

On the Maurice River we have historic data dating to 1988 on the patterns that might be expected during colder winter seasons (previously “normal” or “old-fashioned” winters). We therefore have avian data for the Maurice that references how 21st Century winter bird-use patterns might compare to the colder winters of the late 20th Century.

Further discussion and analysis of avian status and trends will be offered in the upcoming twenty-year summary report, including comparisons of each five-year segment, but suffice it to say that the Maurice River data set, after twenty-one seasons of study, is far greater than for any other area of New Jersey. The systematic record of regular and repeated Maurice River surveys offers a unique opportunity to discover and document changing avian phenology and the changing status and distribution of New Jersey’s birds. Our twenty-first season of systematic study has confirmed, corroborated, and augmented previous efforts and continued to document the Maurice River as a place for all birds and a place for all seasons.

Summary and Acknowledgments:

Winter 2007-2008 marked the twenty-first year of study of wintering raptors and waterfowl on the Maurice River and the fifth year of focused spring shorebird counts. Studies conducted for Citizens United to Protect the Maurice River and its Tributaries again documented an amazing array of avian use of this key South Jersey river. 2007-2008 efforts confirmed and bolstered the findings of the first twenty seasons of study and documented and substantiated the Maurice River as a premier avian resource area of not only New Jersey, but of the entire Mid-Atlantic Region.

Further analysis and discussion, as well as recommendations, will be offered in the upcoming twenty-year summary report. Subsequently, “year twenty-one” has substantially underpinned the findings of the previous seasons and continued to document the Maurice River as an important bird area by any standard applied.

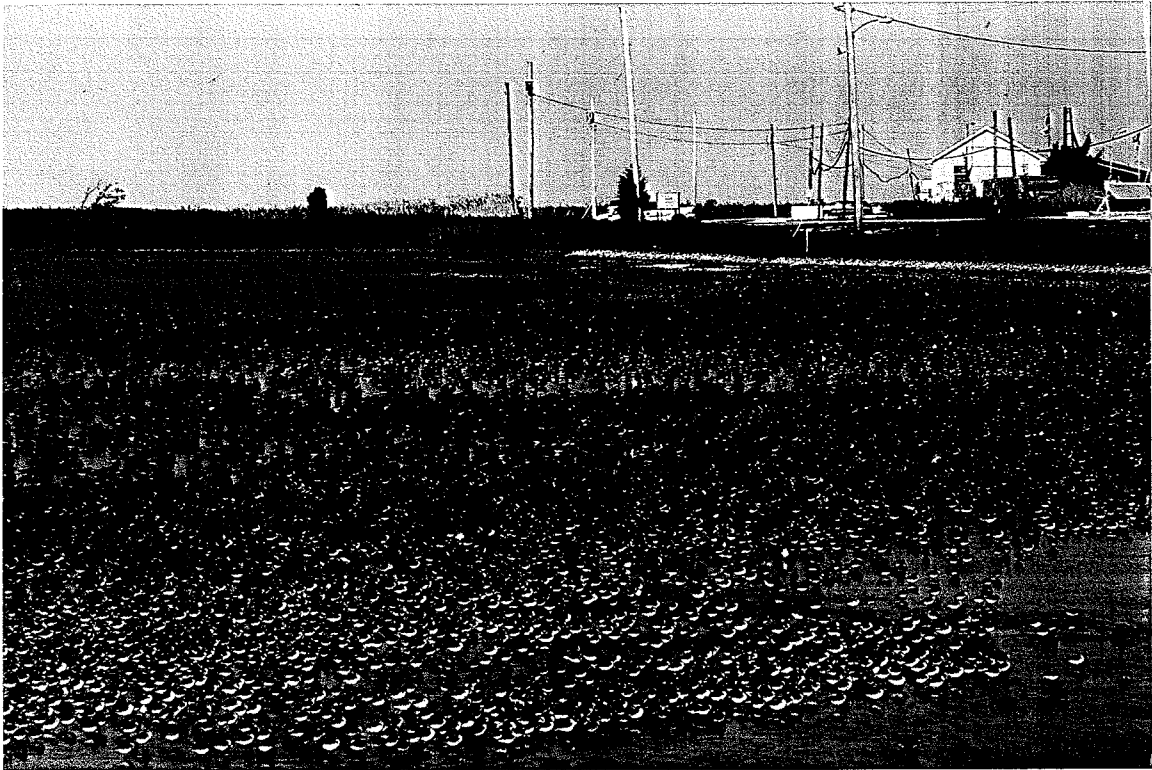
We thank the members, supporters, and friends of CU for allowing us to be a part of these significant discoveries on this great South Jersey river. We particularly thank Jane Galetto for her vision of what role these studies might mean for the protection of these valuable avian resources.

We thank Brian and Karen Johnson for shared sightings and insights, and for their continuing interest in the Maurice River and Delaware Bayshore. We thank Ward Dasey for his support and assistance during the Cohansey River and Salem River comparative surveys.

Ms. Carole Brown, of Philadelphia, joined us on a number of surveys as part of her practicum on Environmental Monitoring, an elective project of her course work for her Master’s Degree Program at Prescott College in Arizona. Carole contributed much and served as a full and able counter on several of the Maurice River surveys. We thank her for her assistance, but more importantly for her enthusiasm and the imaginative concept and conservation theme of her upcoming thesis and degree.

We also heartily thank the U.S. Department of the Interior's National Park Service, Wild and Scenic Rivers Program for their assistance to Citizens United to Protect the Maurice River and its Tributaries. The award of a Wild and Scenic River Partnership Grant enabled these surveys to be carried out. Thank you for all of your important work in Southern New Jersey, and for your ongoing vision of a wild and scenic Maurice River.

Clay Sutton
September 1, 2008



The management (drawdown) of the one impoundment at Heislerville WMA in spring in recent years has attracted and benefitted tens of thousands of migratory shorebirds. This gathering is captured in these images from May 17, 2008, which show Dunlin, Semipalmated Sandpipers and Short-billed Dowitcher (among others) at the peak of spring migration.

– Photos by Pat Sutton, May 17, 2008