

RAPTORS AND WATERBIRDS ON THE MAURICE RIVER

CUMBERLAND COUNTY, NJ

*The TWENTY-FOURTH FIELD SEASON
of an Ongoing and Long-term Avian Use Study*

**FALL 2010 through SPRING 2011
and including the Core WINTER Period 2010-2011**

Research sponsored by

CITIZENS UNITED TO PROTECT THE MAURICE RIVER AND ITS TRIBUTARIES, INC.



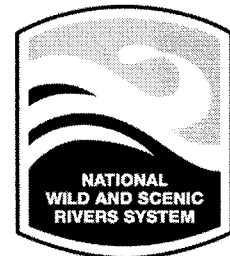
**By Clay Sutton and James Dowdell
July 2011**

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Prepared for:

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and its Tributaries, Inc. (CU)
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Above:

Shorebirds in flight at East Point, at the mouth of the Maurice River. The **Red Knot** at center has been banded and flagged by shorebird scientists. The bird wears **Green flag number 84A**, a number that can tell researchers so much about its time spent on the beaches of Delaware Bay.

– Photo by Clay Sutton, 19 May 2011

On the cover:

Shorebirds on the beach at East Point, attracted to the eggs of Horseshoe Crabs. **Semipalmated Sandpipers, Ruddy Turnstones, Dunlin, Red Knot, and a Short-billed Dowitcher** are present. The Maurice River remains a stronghold for migratory shorebirds in spring and in fall as well.

– Photo by Clay Sutton, 19 May 2011

RAPTORS AND WATERBIRDS ON THE MAURICE RIVER

July 2010 through June 2011

The TWENTY-FOURTH FIELD SEASON

of an Ongoing and Long-term Avian Use Study

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

INTRODUCTION AND OVERVIEW

The period from July 2010 through June 2011 marked the amazing twenty-fourth field season of long-term avian use studies carried out on the Maurice River under the auspices of Citizens United to Protect the Maurice River and its Tributaries, Inc. Studies included the monitoring of fall migration in 2010, spring migration in 2011, breeding bird studies, and the all important core winter studies carried out from December 2010 through March 2011.

Because an in-depth review of long-term status and trends was presented in 2007 (at the twenty-year milestone) and because a major report is planned for the twenty-five year mark (next year), this current report will only offer brief discussion of the 2010-2011 findings in relation to previous years.

Also, because all of the first twenty-three years of individual reports are available on-line (archived on the CU website: www.cumauriceriver.org) little discussion of methodology or techniques will be offered in this short-form year twenty-four report. The basic methodology has remained the same since 1987: nine sites (point counts) on the Maurice River between Millville and East Point are sampled for a period of 45 minutes each during each survey.

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. In-depth analysis of findings have been prepared at the five-year, ten-year, fifteen-year, and twenty-year milestones of this long-term study; see "Literature Cited / For Further Reference" for a complete listing of these reports.

FINDINGS

The results of the Maurice River Raptor and Waterbird Survey for the period July 2010 through June 2011 are shown in **Table 1**. Eight full surveys were carried out during the core winter period (8 December 2010 to 25 March 2011). Five surveys were conducted during the fall period of the study cycle, July through November 2010, and six spring surveys were carried out between 7 April and 3 June 2011. Spring and fall survey results are also shown in Table 1, but are not included in the core winter season *averages* for key species shown in the table. **Peak winter season daily high counts** for key species are shown in **Bold Face**, although note that for a number of migratory species, spring and fall totals exceed the peak core winter season count.

As in the past, comparative studies were conducted on the Cohansey River and on the Salem River as an adjunct to the core winter Maurice River studies. The Cohansey River was sampled four times and the Salem River was surveyed three times in winter 2010-2011. Cohansey River and Salem River winter raptor and waterbird surveys are shown in **Table 2**. Data from these adjunct studies of Delaware Bayshore “comparison rivers” will be fully explored and analyzed in the upcoming planned twenty-five year in-depth report. All Cohansey and Salem River surveys were carried out pro bono, at no cost to Citizens United.

As in past seasons, Canada Goose numbers on the Bayside State Prison grounds (adjacent to the Maurice River) were again estimated; 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 seasonal herbivory on Maurice River wild rice marshes. The numbers are shown below, but note that these “prison numbers” are not included in the river count totals shown in Table 1.

2010-2011 Canada Geese Populations Bayside State Prison Grounds

Date	Number	Date	Number
07/26/10	120	01/20/11	940
08/20/10	320	02/10/11	635
10/07/10	410	02/26/11	660
10/21/10	1400	03/11/11	1200
11/09/10	1200	03/25/11	365
12/08/10	980	04/07/11	310
12/22/10	1260	04/25/11	110
01/06/11	980	05/19/11	130

TABLE 1
Maurice River
Raptor and Waterbird Survey
July 2010 through June 2011

DATE	FALL 2010					CORE WINTER PERIOD 2010-2011										SPRING 2011				
	7/26	8/20	10/7	10/21	11/9	12/8	12/22	1/6	1/20	2/10	2/26	3/11	3/25	AVG	4/7	4/25	5/10	5/19	5/21	6/3
	*													n = 8	*	*	*	*	*	*
LOONS to CORMORANTS																				
Red-throated Loon								1			4									
Common Loon													1							
Pied-billed Grebe						1			1	1	2					1				
Horned Grebe												4	2		9	2				
Dbl-cr Cormorant	32	84	469	294	137	1			1			13	64		131	76	170	163	✓	86
Great Cormorant						1	1													
BITTERNS to VULTURES																				
Least Bittern																				1
Great Blue Heron	3	22	9	13	14	16	12	8	20	2	7	5	4		3	1	5	2	1	1
Great Egret	122	62	26	10									1		18	63	72	55	✓	76
Snowy Egret	368	149	57	16	3								3		27	106	122	149	✓	168
Little Blue Heron			2	1													2			
Tricolored Heron																	1			
Cattle Egret		1																		
Green Heron	1															2		1		
Black-cr Nt-Heron	66	17	3		6	1						7	12		85	120	152	61	✓	104
Yellow-cr Nt-Heron																1	1			1
Glossy Ibis	152	2													53	2	10	8	9	26
Black Vulture	2	6	27	8	33	10	25	10	11	3	22	26	21	16	8	3	4	19	2	15
Turkey Vulture	48	86	68	138	89	113	143	102	125	83	85	162	61	109	54	78	60	36	40	63
WATERFOWL																				
Snow Goose						2439	620	1700	1125	1040	1900	1721		1318						
Ross's Goose							1													
Canada Goose	9	11	7	3	103	1538	220	440	214	205	136	131	140	378	78	82	40	38	✓	2

Peak winter counts
shown in **Bold Face**

* Survey done on Lower River only
** Seen either on a date other than official
survey date or seen by other observers

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July 2010 through June 2011

DATE	FALL 2010				CORE WINTER PERIOD 2010-2011										SPRING 2011			
	7/26	8/20	10/7	10/21	11/9	12/8	12/22	1/6	1/20	2/10	2/26	3/11	3/25	AVG	4/7	4/25	5/10	5/21
WATERFOWL (continued)	*													n = 8	*	*	*	*
Brant																		
Mute Swan		2			2	5	2	4	4	4	18	9	12		6	8	4	8
Tundra Swan							2		5									
Wood Duck				3		1					2					1		
Gadwall			3		6	2			2	2	35	6			2			
American Wigeon					1				1	12								
Am Black Duck	3	11	58	37	109	278	389	614	722	630	380	473	325	476	178	72	38	25
Mallard		8	5	2	17	273	320	195	406	278	340	116	14	243	6	3	4	1
Blue-winged Teal			2									1			5	2		
Northern Shoveler				2	1							10	2		7			
Northern Pintail			225	26	134	532	196	418	288	432	581	228	8	335	6			
Green-winged Teal		3	423	272	184	402		8	4	4	1214	1955	1725	664	1609	275		
Common Teal											1	1	1					
Ring-necked Duck									1		703	225	34		4			
Greater Scaup							6		5	5	2	2				6		
Lesser Scaup							6	2	4	41	70	18			20			
Scaup (sp.)							74		15	24	50							
Surf Scoter											1				20			
Scoter (sp.)				30								4				40		
Long-tailed Duck												1						
Bufflehead					19	105	171	196	194	139	146	269	69		26			
Com. Goldeneye							6	4	4	5	1	4	1					
Hooded Merganser							1			1	10	2	4		6			
Com. Merganser							14		53	8	3	2	1					
Red-br Merganser					4	1	130	24	42	65	51	22	2		10	11	4	1
Ruddy Duck				4	24	1						3				7	3	

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shown in **Bold Face**

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July 2010 through June 2011

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	7/26	8/20	10/7	10/21	11/9	12/8	12/22	1/6	1/20	2/10	2/26	3/11	3/25	AVG	4/7	4/25	5/10	5/21	6/3
	*													n = 8	*	*	*	*	*
DIURNAL RAPTORS																			
Osprey	78	104	2										28		43	48	40	44	48
Mississippi Kite																		1	
Bald Eagle	5	14	22	16	9	30	26	40	34	28	37	20	31	30.75	12	8	15	11	8
Northern Harrier			27	30	38	43	28	39	30	27	21	19	14	28	17	1	3	3	2
Sharp-sh Hawk			52	28	66	3	3	4	3	1	1	1	0	2					
Cooper's Hawk		9	7	9	14	4	3	2	7	1	1	2	4	3	2		1	1	1
Red-sh Hawk					13	1	3	5	4	2				1.88					
Broad-winged Hawk																	1		1
Red-tailed Hawk	6	10	12	32	104	53	35	44	62	53	36	48	43	47	16	5	7	9	14
Golden Eagle				1**	1	2								0.25					
American Kestrel	1	1	28	5	3				1				2	0.38	8				
Merlin			8	7	1	2								0.25					
Peregrine Falcon			2	2	2		4	2	2	2				1.25	1		3	1	2
Total Hawks			160	129	251														
GROUSE to CRANES																			
Ring-neck Pheasant						2										1		1	
Wild Turkey		13		22		74	38	25	20	34	2	23	12		2	6		13	4
N. Bobwhite																			2
Clapper Rail	16	9	13	9	2		1	1				2			1	64	6	19	34
King Rail																1			
Virginia Rail						1													
SHOREBIRDS																			
Black-bellied Plover		37	19	136	12								2		24	96	120	314	150
Semipalmated Plover	305	318													1	1	790	771	500
Piping Plover												1**							

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TABLE 1
Maurice River
Raptor and Waterbird Survey
July 2010 through June 2011

FALL 2010				CORE WINTER PERIOD 2010-2011										SPRING 2011						
DATE	7/26	8/20	10/7	10/21	11/9	12/8	12/22	1/6	1/20	2/10	2/26	3/11	3/25	AVG	4/7	4/25	5/10	5/19	5/21	6/3
	*													n = 8	*	*	*		*	*
SHOREBIRDS (continued)																				
Killdeer	1	10			2	8	2	2			2	4	4		2	5	4	1	1	1
Am Oystercatcher												2								
Greater Yellowlegs	11	36	30	171	100	10	17		12		39	30	89		99	172	12	7	1	
Lesser Yellowlegs	177	31	11	5	1						2	103	110		100	367	36			
Willet																9	30	21	6	6
Spotted Sandpiper	1	2																2		
Hudsonian Godwit				3																
Marbled Godwit			1																	
Ruddy Turnstone																1	1	322	2	1
Red Knot																2**	1	580	1	
Sanderling		8															4	8		
Semipalmated Sdp	3312	3605	12													52	900	19950	15000	5350
Western Sandpiper	1		1	2																
Least Sandpiper	54	44																		
Wh-rump. Sandpiper		4																		
Pectoral Sandpiper	1																			
Dunlin			21	1030	6532	261	50	110	14	6	100	160	4030		7800	6040	4700	12575	10000	1
Curlew Sandpiper																	2	1	2	
Stilt Sandpiper	1					1														
Sh-billed Dowitcher	1016	194		1																
Lg-billed Dowitcher																1				
Wilson's Snipe		1		3		4	3	1			1	1	13							
Am. Woodcock										1										
Red-necked Phalarope																			1	1
unid. shorebirds	2000															6200	2000			
TOTAL SHOREBIRDS	6880	4290	95	1351	6647								4248		8039	14300	11512	36101	26440	5455

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TABLE 1
Maurice River
Raptor and Waterbird Survey
July 2010 through June 2011

FALL 2010				CORE WINTER PERIOD 2010-2011										SPRING 2011						
DATE	7/26	8/20	10/7	10/21	11/9	12/8	12/22	1/6	1/20	2/10	2/26	3/11	3/25	AVG	4/7	4/25	5/10	5/19	5/21	6/3
	*													n = 8	*	*	*	*	*	*
JAEGERS to ALCIDS																				
Laughing Gull	✓	✓	✓	✓	1								3		44	✓	✓	✓	✓	✓
Com. Bl-headed Gull												1**	3							
Bonaparte's Gull				1	9						50	3	80		110					
Ring-billed Gull	40	✓	✓	✓	✓	✓	300	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	6
Herring Gull	✓	✓	✓	✓	✓	✓	600	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lesser Bl-backed Gull		1																		
Gt Bl-backed Gull	✓	✓	✓	✓	✓	✓	60	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gull-billed Tern																2**				
Caspian Tern		8	5																	
Common Tern																			1	
Forster's Tern	525	186	255	108	68										85	71	70	67	✓	13
Least Tern																	2	6	2	
Black Skimmer																1**	4	302	200	
PIGEONS to WOODPECKERS																				
E. Screech Owl								1	1											
Belted Kingfisher		1	4	3	5	4	2	5	6	1	2	2	2		1					

Peak winter counts
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TABLE 2
Cohansey River and Salem River
Winter Raptor and Waterbird Survey
2010 -- 2011

	COHANSEY R.						SALEM R.			
DATE	1/13/11	1/31/11	2/20/11	3/3/11	AVG.		2/13/11	2/27/11	3/17/11	AVG.
					n = 4			*		n = 3
LOONS to CORMORANTS										
Pied-billed Grebe	2						1			
Double-cr Cormorant									7	
BITTERNS to VULTURES										
Great Blue Heron	1	10	7	1			2	2	8	
Great Egret									2	
Black Vulture	18	6	20	8	13		27	√	30	29
Turkey Vulture	89	83	124	107	101		78	√	135	107
WATERFOWL										
Gr White-fr Goose			4**							
Snow Goose	2661	5605	1025	6750	4010		2200	5000	1	2400
Ross's Goose								1		
Cackling Goose	1	1	1					1		
Canada Goose	5070	4150	1400	1045	2916		10320	3000	926	4749
Mute Swan	2			2			42	115	66	
Tundra Swan							84	50	1	
Wood Duck				1				2		
Gadwall			2				28	3	258	
Eurasian Wigeon							1**			
American Wigeon			12	12			14	275	141	
Am Black Duck	181	113	205	157	164		90	30	124	81
Mallard	234	172	87	46	135		90	25	36	50
Blue-winged Teal									1**	
Northern Shoveler								1	16	
Northern Pintail		2	302	110	104		100	505	2	202
Green-winged Teal			54	195	62		0	70	378	149
Ring-necked Duck				2						
Lesser Scaup			1							
Bufflehead		5	10	12						
Hooded Merganser	2	2		2						
Com. Merganser	2	31	4				68	√	3	
Ruddy Duck	1			1				20		
DIURNAL RAPTORS										
Osprey									1	
Bald Eagle	22	42	27	29	30		55	41	14	37
Northern Harrier	25	36	24	20	26		21	√	13	17
Sharp-sh Hawk		1	1	2	1		4	0	0	1.33
Cooper's Hawk		3	1	1	1.25		3	0	1	1.33
Red-sh Hawk	2	2	2	1	1.75		0	1	0	0.33
Red-tailed Hawk	34	33	53	38	40		18	√	19	19
Rough-legged Hawk			1**				1	0	0	0.33
American Kestrel	2		1	1	1		1	0	0	0.33
Merlin							1	0	0	0.33

* partial survey only

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TABLE 2
Cohansey River and Salem River
Winter Raptor and Waterbird Survey
2010 -- 2011

	COHANSEY R.						SALEM R.			
DATE	1/13/11	1/31/11	2/20/11	3/3/11	AVG.		2/13/11	2/27/11	3/17/11	AVG.
					n = 4			*		n = 3
GROUSE to CRANES										
Wild Turkey	25	126	30	22			30			
Am. Coot							5	√	60	
Sandhill Crane	11**						4	2	1**	
SHOREBIRDS										
Killdeer			1						4	
Greater Yellowlegs			3							
Dunlin	15									
Wilson's Snipe	1								6	
Am. Woodcock	1									
JAEGERS to ALCIDS										
Ring-billed Gull	√	√	√	√			√	√	√	
Herring Gull	√	√	√	√			√	√	√	
Gt Bl-backed Gull	√	√	√	√			√	√	√	
PIGEONS to WOODPECKERS										
Great Horned Owl		6	1						1	
Long-eared Owl							4			
Belted Kingfisher		2								

* partial survey only

** Seen either on a date other than official survey date or seen by other observers

DISCUSSION: FALL AND SPRING MIGRATION ON THE MAURICE RIVER

Four full surveys and one lower river survey (with a shortened route designed to emphasize monitoring of migration along the edge of the Delaware Bay) were carried out during the southbound or “fall” migration period in 2010. As usual during autumn, there were many exceptional discoveries in 2010 – discoveries made both by these targeted studies and by other individuals visiting the Maurice River region.

The well known and now famous Purple Martin migratory stopover roost near Mauricetown was reliably estimated at 100,000 birds on 16 August 2010, by both Sutton and Dowdell and by others. As Table 1 attests, heron and egret numbers remained high throughout the period, and waterfowl flooded into the area during October and November.

As in past seasons, hawk migration on the Maurice River was substantial and highly significant, with large numbers of raptors recorded through November 2010. 251 hawks and eagles were counted on 9 November 2010, including an excellent high count of 104 Red-tailed Hawks. The excellent 7 October 2010 raptor migration (see Table 1) was only part of the migration picture that day, as we also estimated “100s of Northern Flickers, 100s of Yellow-rumped Warblers, many 100s of Blue Jays, 1000s of Red-winged Blackbirds, and many 1000s of Tree Swallows, along with 100s of Monarchs and Common Buckeye butterflies” – all migrating along the lower Maurice River.

The 9 November 2010 hawk flight at East Point and Heislerville Wildlife Management Area (WMA), reported on above, was 67 % of the hawk count recorded at Cape May Point that day when compared to the official Cape May Bird Observatory hawkwatch totals. Of great interest, a highly distinctive (very dark four year-old) immature Bald Eagle seen by Sutton at Heislerville WMA on 9 November (at 10:00 a.m.) was seen again by Sutton at Cape May Point on 11 November (at 10:00am). It was evidence of a 48 hour travel time to Cape May Point, but more importantly was evidence that not all migrant raptors at East Point and on the lower Maurice River travel west around Delaware Bay. Some apparently head south and east along the Delaware Bayshore.

Also, regarding Bald Eagles, on 17 November 2010 we watched an adult Bald Eagle catch an American Black Duck at Heislerville WMA after repeatedly harrying it, and on 8 December 2010, we saw an immature Bald Eagle catch an enormous Gizzard Shad in an open lead in the mostly frozen Heislerville WMA impoundments (see photos at the end of this report). Although no Northern Goshawks were found during our fall or winter surveys, an immature Goshawk at East Point on 26 November 2010 (seen by Karen and Brian Johnson) and an immature Goshawk (seen by Tom Reed) near West Creek on 10 April 2011 document both fall and spring migration through the region in 2010-2011. (No Rough-legged Hawks were encountered in winter 2010-2011 either.)

Also for “fall,” a Stilt Sandpiper found by Dowdell on 8 December 2010 at Bivalve is the latest record ever for this species in New Jersey. Significant winter records included 17 Tree Sparrows at Robbinstown Road on 10 February 2011, a modern-day good number for this once common and now scarce bird. Twelve American Pipits were also present there.

In spring 2011, one full river survey and five targeted lower river surveys were conducted. “Lower River” coverage included East Point, Heislerville WMA, and the Bivalve (Commercial Township) Estuary Enhancement Project (EEP) site near Port Norris. Spring studies found wading birds abundant and again documented the large heron and egret rookery (breeding colony) in the northern-most impoundment at Heislerville WMA. Waterfowl numbers remained high in late March and early April, with 1,609 Green-winged Teal still present on 7 April.

Due to rapidly increasing coverage of the region by birders and ecotourists, many excellent spring records were reported. Although no Canvasbacks were found by our survey in 2010-2011, 36 were seen (a good count) at Heislerville WMA by Steve Glynn on 18 February, again proving spring migration through the Bayshore region. Always a good find, a drake Eurasian Green-winged Teal or “Common Teal” was seen by Sutton and Dowdell on three dates: 26 February, 3 March, and 25 March, all at the Bivalve EEP site.

Significant waterbird records included 3 Common Black-headed Gulls seen together at Heislerville WMA on 25 March, and continuing to 10 April (fide Tom Reed). This was a new Cumberland County maxima for this rare migrant through our region. A King Rail was heard by Sutton east of East Point on 25 April, and a White-faced Ibis was found near there (Thompson’s Beach) by Sandra Keller on the same date. Two Gull-billed Terns were at Heislerville WMA on 26 April, and a single Brown Pelican was reported there on 22 May (fide New Jersey Birds).

A Black-necked Stilt put in a brief appearance at Heislerville WMA on 7 May, but was seen by many, and Heislerville continued to be THE place in North America to see Curlew Sandpiper (a Eurasian species – see previous year’s report), with a total of four individuals reliably reported there this spring season. All four were thought to be present on 11 May, unprecedented in New Jersey and perhaps in all of North America.

A final shorebird record was a good one too. On 16 March, veteran observer Chris Vogel saw a Piping Plover (Endangered) on the low tide mudflats south of the Heislerville WMA wildlife drive. It was well seen and at length, but the distance precluded identifying it as either the Eastern race (the race that breeds on Atlantic coastal beaches, including New Jersey) or the Western race (Great Lakes and upper Mid-West). Either race would be almost equally likely away from Atlantic coastal barrier beaches. Eastern or Western, this Piping Plover was an excellent sighting, and the first record ever for Cumberland County!

While little raptor watching was done in Spring, some good data was none-the-less accrued. Sutton saw a minimum of 8 immature Bald Eagles (including one fresh “southern” juvenile) migrating west and north over East Point and Heislerville WMA on 3 June, a late push by wandering and probably mostly southern non-breeders. Bald Eagles, due in part to their ever-growing Bayshore breeding population, were present in good numbers throughout the spring period, and 8 migrant American Kestrel were tallied on 7 April. A Mississippi Kite was reported over East Point by Rich Kane on 30 April, and another was seen by Sutton and Dowdell et al moving west over Hansey Creek on 21 May. These Mississippi Kites once again tease and hint at breeding in our region by this enigmatic southern species known to be rapidly expanding its range northward.

Finally, the “Holy Grail” of raptor watching, a Swallow-tailed Kite, was well seen over Turkey Point by others (fide New Jersey Birds) on 1 May, and reported to “fly southeast until out of sight,” which placed it over the Bivalve EEP site, and squarely in the Maurice River study area. These observers only wish we had been there to see it, as there are only about 6 or 8 records ever for Cumberland County.

DISCUSSION: MAURICE RIVER SHOREBIRDS

“On 9 May, more than 200 people from throughout the Western Hemisphere gathered in Bivalve, New Jersey, to celebrate the 25th Anniversary of Delaware Bay’s designation as a Western Hemisphere Shorebird Reserve Network (WHSRN) Site of Hemispheric Importance. Hosted by the Manomet Center for Conservation Sciences’ WHSRN Executive Office and a coalition of Delaware Bay conservation partners, the event highlighted the continuing importance of the Delaware Bay for migrating shorebirds, especially the imperiled rufa subspecies of the Red Knot (Calidris canutus rufa). As a major stopover for birds traveling from Tierra del Fuego in southernmost South America to James Bay in northern Canada, what happens on Delaware Bay is of hemispheric importance, and consequence. With that in mind, and in light of recent data showing more severe and widespread declines for several shorebird species, celebratory remarks were accompanied by a ‘call to action.’

“The event’s unique location, on the docks of the restored oyster shipping sheds and wharves of the Bayshore Discovery Project, reminded us too of the Bay’s importance in shaping and sustaining local, regional, and state economies – historically and currently. The diversity of partners gathered on the docks, from shorebird scientists to investment bankers, mirrored a local and global awareness that ensuring the biological and economic health of the Bay is essential to everyone’s future.

“Delaware Bay was the first site in the network, therefore the anniversary event was an opportunity to celebrate and honor the visionaries and pioneers who, in the mid 1980s, developed the bold idea to connect a network of sites across the Americas dedicated to conserving shorebirds. By 1986, biologists, citizens, and political leaders had worked together successfully to officially recognize Delaware Bay – with its more than 400,000 acres of wetlands – as a WHSRN site. In May 1986, the Bay was dedicated as such by proclamation of the then-governors of New Jersey (Thomas Kean) and Delaware (Michael Castle). Since then, this international conservation strategy has become widely recognized as the most effective flyway-scale shorebird network in the world. Today it includes hundreds of partners in 85 sites and 13 countries, from the Canadian Arctic to the southern tip of Patagonia.”

From WHSRNews: 12 July 2011

Citizens United was one of the sponsoring Delaware Bay conservation partners of the WHSRN 25th Anniversary Celebration, and the following summary of CU-sponsored Maurice River shorebird survey efforts to date was prepared for and disseminated at the event.

Sponsored by Citizens United to Protect the Maurice River and its Tributaries, Inc., ornithological studies on Cumberland County’s Maurice River are now in their 24th year. Beginning in 1987, long-term and ongoing bird use surveys have yielded an in-depth understanding of avian

status and trends on the Maurice River. Originally, bird studies focused primarily on wintering raptors and waterfowl, and these core winter season surveys are still ongoing. Other efforts have focused on breeding birds and the now well-known autumn raptor migration at East Point.

In recent years, bird studies have been expanded to include all waterbirds and both the spring and fall migration seasons. Beginning in 2000, these studies began to focus specifically on migratory shorebird use of the Maurice River, and in fall 2003 and spring 2004, systematic counts were begun and continue to the present time. For a number of years, Citizens United (CU) has been a partner and stakeholder in both the New Jersey Division of Fish and Wildlife Endangered and Nongame Species Program (NJ DFW ENSP) and in international efforts and programs to protect migratory shorebirds on Delaware Bay. Therefore, it was deemed appropriate and timely to focus CU-sponsored inventory and monitoring resources on gaining valuable data on shorebird use of the Maurice River itself. This concern and focus led to these current and ongoing shorebird studies.

The Delaware Bay is well known as a migratory shorebird staging area of international significance, as shorebirds gather to feed on the eggs of Horseshoe Crabs. The Maurice River has long been known to support significant numbers of migratory shorebirds. Both anecdotal data from birders and NJ DFW ENSP aerial surveys have shown the Delaware Bay beaches of the lower Maurice River, at and near East Point, to support high numbers of shorebirds in spring. What was less known and understood is the extent of shorebird use of *other* tidal portions of the Maurice River Basin – those areas *away* from the immediate Delaware Bay beaches.

Heislerville WMA has long been known to attract numerous shorebirds in spring (and fall), primarily on the Basket Flats mudflats south of the wildlife drive at low tide. However, beginning in 2006, the DFW began drawing down one or more of the tidal impoundments each May. This enlightened management technique, which provides rich mudflats at all tide stages, quickly attracted highly significant numbers (and variety) of shorebirds, birds that both roost and feed at the site. In addition to East Point and Heislerville WMA, the 4,200-acre Commercial Township Wetlands Restoration Site at Bivalve attracts large numbers of shorebirds in spring and fall. Beginning in about 1995, when these tidal impoundments were first created by Public Service Electric and Gas (PSE&G) as a mitigation project (the Estuary Enhancement Program – said to be the world's largest salt marsh restoration project), the vast mudflats at Bivalve began to attract many thousands of shorebirds annually.

Seasonal point counts were established to monitor shorebird numbers and use at these sites, with an attempt to target times of peak use. These Citizens United-sponsored targeted shorebird surveys on the Maurice River have now documented substantial and significant shorebird use in the spring and also during fall. **Table 3** presents spring and fall shorebird counts from 2000 to 2011. Over twelve years of point counts during both spring (northbound) and fall (southbound) shorebird migration have shown the lower Maurice River – particularly the East Point area, Heislerville WMA, and the Bivalve wetlands restoration site – to host large numbers and a wide variety of shorebirds. Importantly, studies have shown that Delaware Bay shorebirds use far more area and habitat than the beaches and flats at the edge of the bay. Large numbers occur both on natural mudflats (Basket Flats) and in tidal impoundments as well. These twelve years of shorebird counts should augment

DFW ENSP aerial censuses of the Delaware Bayshore and further substantiate the need to protect the resources of the lower Maurice River. The presence of such numbers of migratory shorebirds on the river's mudflats and tidal impoundments are regionally highly significant and should call for management of resources and habitats that will promote the long-term protection and conservation of these long-distance migrants.

Migratory shorebirds are one more among many documented and proven ecovalues of the Wild and Scenic Maurice River, and brightly colored, restless feeding shorebirds by the thousands are yet one more reason that the Maurice River is a very special place indeed. A final note is the large number of birders (ecotourists) who are coming to the Delaware Bayshore region, and particularly the lower Maurice River to view the migratory shorebirds gathered there. Places such as East Point, Heislerville WMA, and Bivalve have become a definitive destination in spring, visited by many dozens of birders daily. Indeed, birders have come from all over North America to enjoy the lower Maurice River and Delaware Bayshore at their finest – teeming with shorebirds on their way to or from the high Arctic breeding grounds. The Maurice River is an important stopover and a crucial way station on that journey.

TABLE 3 -- MAURICE RIVER SHOREBIRDS

A Summary of Spring and Fall Migrant Shorebird Use of the Lower Maurice River -- 2000-2010

Research sponsored by Citizens United

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		Chart shows peak High Counts for each year. All time seasonal high counts for key species are bold faced.																									
		S P R I N G												F A L L													
YEAR		2000	2001	2002	03	2004	2005	2006	2007	2008	2009	2010	2011	2000	2001	02	2003	2004	2005	2006	2007	2008	2009	2010			
# SURVEYS		1	2	2	0	5	3	3	5	5	4	5	6	5	5	0	6	4	5	6	5	5	4	5			
Black-bellied Plover	50	300	215			860	580	243	525	495	784	570	314	500	500	291	252	375	279	69	428	150	136				
Am. Golden Plover	1					1					1	1															
Semipalmated Plover	3					468	3494	630	5075	2155	1045	1410	790	250	300	750	510	340	1145	526	490	422	318				
Killdeer	5	9	3			20	6	7	13	7	6	4	5	4	6	24	3	10	5	3	36	2	10				
Am. Oystercatcher						2	1	4	2	2	3	2		0	4	1		4	4								
Black-necked Stilt									2		1		1														
American Avocet											1				2	1					1	1					
Greater Yellowlegs	25	815	155			269	335	246	106	260	625	252	172	400	300	86	64	105	150	110	127	60	171				
Lesser Yellowlegs	250	125	15			427	194	40	150	575	411	213	367	200	200	71	72	38	101	42	75	48	177				
Solitary Sandpiper						1				1		1		2				1									
Willet	10	25	12			36	53	38	24	53	55	64	30	2	6	14	14	13	2	3	4	1					
"Western" Willet						1		1			1																
Spotted Sandpiper						1	3		6	7	1	3	2		1	4	1	2	2	3	1	3	2				
Upland Sandpiper														1													
Whimbrel	1					1	1	1					1														
Hudsonian Godwit															3			1			1		3				
Marbled Godwit															2			1			5		1				
Ruddy Turnstone						35	59	35	50	123	192	138	322	20	35		8	9	12	2		6					
Red Knot						260	625	152	25	55	108	18	580	15	1	8				1							
Sanderling						450	125	30	320	16	200	20	8			1	32	5	106	326	49	1	8				
Semipalm. Sandpiper	20					6900	17965	5960	7700	14950	16587	28050	19950	10000	8500	6245	4020	5462	4351	2520	1686	4940	3605				
Western Sandpiper														20	5	25	59	32	5	14	4	1	2				
Least Sandpiper						932	795	188	20	404	95	168	80		50	300	87	87	205	74	49	39	54				
Wh-rump.Sandpiper						4	7	9	3	4	13	8	26	4	2	25	1	1		6		4	4				
Pectoral Sandpiper						2		5		2	1	6			2		7		1	2	8	1					
Dunlin	10000	6300	1520			7800	4053	5336	13300	14000	7390	9840	12575	12000	10000	1810	3420	846	295	1100	2181	4365	6532				
Curlew Sandpiper	2						2		1	3	2	1	2														
Stilt Sandpiper							2		2							3	1		7				1				
Ruff	1	1				1				1		1															
Sht-billed Dowitcher		1500				1525	1619	2600	8900	12334	6400	4556	2900	2000	3000	624	1401	1770	1355	925	1077	625	1016				
Lng-billed Dowitcher		1					1		1	1			1	3		1	2	1			2	2					
Wilson's Snipe			9			18	1	3	1		1					2			1	2			3				
Am. Woodcock									1																		
Wilson's Phalarope						1	1					1															
Red-neck. Phalarope											1		1														
unid. Shorebird							775		20000	8000	7000	2000	6200				2000			900	600	250	2000				
TOTAL Shorebirds	10344	7557	1917			11894	24968	11490	40929	45487	25735	30947	36100	12632	11407	6912	6279	7643	6794	5040	3574	6552	6880				

DISCUSSION: CORE WINTER SURVEYS

Winter raptor and waterfowl surveys, the core effort of CU-sponsored ornithological studies, were conducted for the twenty-fourth consecutive winter season. Eight full river surveys were carried out between 8 December 2010 and 25 March 2011. Based on the findings, once again the Maurice River was shown to host regionally significant numbers of raptors and waterfowl in winter. However, although still significant, waterfowl numbers were down considerably in winter 2010-2011.

Table 1 shows the findings for the core winter studies (as well as for all seasons), and for winter surveys, peak counts for all species are shown in **Bold Face**. The winter average for key species is shown as well in Table 1. **Table 4** presents 2010-2011 wintering raptor and waterfowl numbers on the Maurice River in comparison to the previous three winter seasons, as well as the most recent 5 year segment (2002-2007) peaks and averages. The rather dismal showing of waterfowl in 2010-2011 is readily seen in Table 4.

Goose numbers were below average in 2010-2011 when compared to recent winters. Snow Geese peaked at a low 2,439 on 8 December. A Ross's Goose was a good find on 22 December near Leesburg, one of few records for the Maurice, and was present for some time. Canada Goose numbers were on par with recent winters, with the seasonal average skewed a bit by the peak of 1,538 recorded on 8 December; a number of these Canada Geese were migrants passing through the region. Regional goose populations have created considerable concern and controversy in the South Jersey area. See the Addendum at the end of this report for additional information and editorial thoughts regarding management and control of growing regional goose populations.

American Black Duck, Mallard, Northern Pintail, and Green-winged Teal numbers were well below both recent and long-term averages. These key species of the Maurice River continue their ongoing and ominous decline, probably due to a combination of sea level rise, the continuing loss of brackish and fresh water marsh habitats along the river, and the trend towards mild winters (possibly due to climate change). See discussions in previous seasonal reports, and anticipate a full discussion in the upcoming 25-year summary to be prepared in 2012.

In contrast to waterfowl numbers, raptors fared much better in winter 2010-2011. Vulture numbers were again high, although Black Vultures backed away from recent peaks and averages. Northern Harriers were present in the usual (substantial) numbers, as were Red-tailed Hawks. Red-shouldered Hawks were found in record numbers on the Maurice, reflecting an (anecdotal) observed regional trend. Accipiters – Sharp-shinned Hawks and Cooper's Hawks – continued their upward trends as wintering birds.

Peregrine Falcons were again present in good numbers, with a high of 4 seen on 22 December. American Kestrel were virtually non-existent (again....). None in fact truly wintered; the one seen on 20 January was judged to be a weather-pushed southbound migrant (by snow cover to the north), and the 2 seen on 25 March were indeed early northbound migrants passing through

the Bayshore region.

Raptors, excepting American Kestrel, were no doubt numerous in part due to winter weather to the north of New Jersey. There was considerable snow cover for much of the season in upstate New York, New England, and beyond, a factor that sent many northern raptors south to our region. Snow greatly impedes hunting and feeding efforts for many raptors, and winter incursions of birds of prey are well known. On the other hand, waterfowl populations were low in part because it was a relatively mild winter, both in New Jersey and to our north. A very warm fall season in 2010 in New Jersey and the Northeast was followed by an above average temperature winter season, and then in turn by a very early and very warm spring. Therefore, despite the snow cover to our north, there was comparatively little ice coverage – either in New Jersey or much of the Northeast. Characteristically, and over time, it has been extremely cold winters and resultant ice-ups that create big waterfowl numbers both on the Delaware Bayshore and in the Mid-Atlantic region.

As we have discussed, principal studies, both in 2010-2011 and in all previous seasons, have focused primarily on winter raptors and waterfowl. In recent years however, a greater emphasis has been placed on spring and fall migration. Over time, comparatively little effort has been focused on the breeding birds of the Maurice River watershed. However, because much of spring migration through the region is virtually concurrent with the local breeding season for many species, and because early “fall” (southbound) migration for shorebirds occurs in mid-summer, current survey efforts and protocol have allowed for a significant (if not in-depth) look at the breeding birds of the Maurice River.

Accordingly, winter studies and spring and fall survey efforts have allowed for significant discoveries and documentation of breeding birds in the Maurice River and greater Delaware Bayshore region. Confirmation of Cooper’s Hawk (Threatened) breeding was obtained when we watched a courtship/display flight at Bivalve on 7 April 2011 and 2 adults engaging in a mutual display flight north of the Maurice River Bridge on 20 January 2011. Six recently fledged juvenile Cooper’s Hawks seen along the length of the Maurice River study area on 20 August 2010 confirmed considerable successful local nesting in the area. More importantly, continued breeding in the Maurice River region by Northern Harrier (Endangered) was proven by a “sky-dancing” (characteristic energetic courtship flight) male Harrier east of East Point, seen by Chris Vogel on 5 April 2011. Among other breeding season sightings, we watched a male Northern Harrier carrying prey to a distant nest near Bivalve on 2 May 2011. Possibly two or more pairs of Northern Harriers still breed in the lower Maurice River basin, a highly significant finding.

During survey efforts, we continually saw ample evidence of the continuing and booming resurgence of Osprey and Bald Eagles on the Maurice River, but these are well documented and reported elsewhere by CU and the ENSP, and will not be elaborated on here. Suffice it to say that Osprey and Bald Eagle have made a truly remarkable recovery in the Bayshore region.

Highly significant on the Bayshore is the continuing wader rookery at Heislerville WMA. Active in both the 2010 and 2011 breeding seasons, in 2011 this roost and rookery contained as many as 152 Black-crowned Night-Herons – about 50 to 75 pairs – and at least one pair of Yellow-

crowned Night-Herons (Endangered); one was seen building a nest there on 7 April 2011. At least one pair, if not more, of Great Blue Herons are in the rookery, along with hundreds of Snowy Egrets and Great Egrets. In 2011, Double-crested Cormorants nested there in numbers, perhaps as many as 50 pairs. This is only the second known Cormorant nesting colony on the Bayshore to our knowledge, the other being the few pairs that have nested for about a decade on the navigation towers near the mouth of the Cohansey River. Double-crested Cormorant is well-known to be expanding its numbers and range throughout the East.

Another unusual and unprecedented breeding record in 2011 was Dickcissel. There were reports by others in late spring and early summer of at least two singing male Dickcissels north of Route 553, on Strawberry Avenue, north and west of Port Norris; females were reported as well. Sutton saw a singing male there on 26 June 2011. This definite breeding attempt, in a fallow hay field, is a first for Cumberland County, and one of the very few Dickcissel breeding records ever on the Bayshore or in southern New Jersey. It was part of a known wider incursion into New Jersey in 2011 by Dickcissels. Also present on Strawberry Avenue were several pairs of Eastern Meadowlarks, another increasingly rare breeder on the Bayshore.

TABLE 4
WINTERING RAPTORS AND WATERFOWL
on the Maurice River, Cumberland County, NJ

Comparison of Winter 2010-2011
with Previous Three Seasons and Most Recent 5-Year Segment

	2002-2007 Segment IV			2007-2008		2008-2009		2009-2010		2010-2011	
		Avg. Peak	Mean of								
Species	Best	Count	Means	Peak	Avg.	Peak	Avg.	Peak	Avg.	Peak	Avg.
Snow Goose	7150	5070	1992	5040	2105	7120	2220	12324	3582	2439	1318
Canada Goose	1520	910	412	987	329	692	254	489	249	1538	378
Am. Black Duck	2858	2173	1079	1274	748	776	524	1024	458	722	476
Mallard	994	600	350	649	441	445	301	408	188	406	243
Northern Pintail	1495	1036	409	928	431	753	259	330	127	581	335
Green-winged Teal	3779	2060	557	5850	1525	3220	1196	3727	969	1955	664
	2002-2007 Segment IV			2007-2008		2008-2009		2009-2010		2010-2011	
		Avg. Peak	Mean of								
Species	Best	Count	Means	Peak	Avg.	Peak	Avg.	Peak	Avg.	Peak	Avg.
Black Vulture	75	53.4	19	27	13	26	10	57	38	26	16
Turkey Vulture	155	139.4	94	133	90	153	86	120	107	162	109
Osprey *	41			50		72		44		28	
Bald Eagle	31	27	14.92	25	16.9	24	18.25	48	30.5	40	30.75
Northern Harrier	40	36.6	26.4	40	28	37	29	39	26	43	28
Sharp-shinned Hawk	11	7	2.62	5	3	15	4.63	5	2.25	4	2
Cooper's Hawk	7	5	2.48	6	2.9	10	3.75	5	3.5	7	3
Northern Goshawk	1		(1 total)	1	(2 total)			1	(1 total)		
Red-sh. Hawk	8		(36 total)	4	(11 total)	3	(7 total)	4	(7 total)	5	(15 total)
Red-tailed Hawk	87	66	44.2	59	43	53	43	59	44	62	47
Rough-legged Hawk	2		(8 total)	1	(1 total)	1	(1 total)	1	(1 total)		
Golden Eagle	1		(7 total)	1	(4 total)					2	(2 total)
American Kestrel	4	2.2	0.7	3	1.7	10	1.75			2	0.25
Merlin	2		(10 total)	1	(1 total)	1	(3 total)			2	(2 total)
Peregrine Falcon	3		(25 total)	2	(6 total)	2	(11 total)	2	(9 total)	4	(10 total)
* Osprey is not a wintering species on the Maurice River. Numbers shown represent spring arrivals during the last few days of the winter count period.											
(__ total) = total number of sightings for the season											

SUMMARY AND ACKNOWLEDGMENTS

Winter 2010-2011 marked the twenty-fourth year of study of wintering raptors and waterfowl on the Maurice River and the eighth year of focused spring and fall counts. Studies conducted for Citizens United to Protect the Maurice River and its Tributaries, Inc. again documented an amazing array of avian use of this key South Jersey river. 2010-2011 efforts augmented and supplemented the findings of the first twenty-three 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. Greater in-depth discussion, as well as recommendations, were offered in the twenty-year summary report (see: "Wintering Raptors and Waterfowl on the Maurice River, Cumberland County, New Jersey – A Twenty-Year Summary of Observed Status and Trends, 1987-2007"). Subsequently, four additional years of study have now substantially underpinned and supported the findings of the previous seasons and continued to document the Maurice River as an important bird area by any standard applied.

After 24 years of study, we now firmly know the depth and diversity of the substantial birdlife of the Maurice River. Long-term studies have created a baseline of avian resource data rarely equaled for the Delaware Bayshore. Yet even with such an expansive database, the 2010-2011 segment offered many surprises, from Piping Plover to Mississippi Kites to breeding Dickcissels and Double-crested Cormorants. Such discoveries take us beyond the well-known and documented avian ecovalues of the Maurice River and speak to the realm of the potential and infinite possibilities of the always extraordinary Maurice River.

In conclusion, we thank Brian and Karen Johnson, Janet Crawford, Tom Reed, Steve Glynn, Chris Vogel, and Sandra Keller for shared sightings and insights and for their continuing interest in the Maurice River and Delaware Bayshore. Leslie and Tony Ficcaglia have been wonderful supporters of all conservation efforts on the Maurice River, as well as great companions on seasonal river surveys. We thank Ward Dasey and Pat Sutton for their support and assistance during the pro bono Cohansey River and Salem River comparative surveys.

We thank the many members, supporters, and friends of Citizens United for allowing us to be a long-term part of the continuing significant work on this great South Jersey river. Thank you for all of your important conservation efforts in Southern New Jersey, and for your ongoing vision of a wild and scenic Maurice River. We particularly thank Jane Galetto for her vision of what role these long-term studies might play in the protection of these valuable avian resources.

Finally, we sincerely thank the U.S. Department of the Interior's National Park Service, Wild and Scenic Rivers Program, for continuing assistance to Citizens United. The award of a Wild and Scenic Rivers Partnership Grant to CU supported this project and enabled these surveys to be conducted. We recognize and thank the NPS for their continuing interest in this study and in the wildlife resources of the Maurice River.

– Clay Sutton
July 2011

LITERATURE CITED / FOR FURTHER REFERENCE

All comparative Maurice River ornithological studies discussed and / or referenced in this report have been directed and co-authored by Clay Sutton, either as an independent contractor or formerly as staff ornithologist, Southern Regional Manager and Vice President of Herpetological Associates, Inc., Plant and Wildlife Consultants. (Comparative Cohansey River studies are embedded within the Maurice River annual reports). Principal reports and publications resulting (either wholly or in part) from these studies (and funded or co-funded by Citizens United to Project the Maurice River and its Tributaries, Inc.) are as follows:

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ADDENDUM

“Editorial Thoughts on Goose Management and Control”

by Clay Sutton

(Opinions expressed are not the opinions of Citizens United to Protect the Maurice River and its Tributaries Inc., and are solely those of Clay Sutton)

Attached here please find two articles on the “problem” of growing goose populations published in *The Press of Atlantic City*, dated 14 March 2011 and 12 January 2009. After reading these articles, particularly the 14 March article, “Farm Bureau Wants Help on Geese Removal,” many readers of this report might possibly believe that “a goose is a goose is a goose,” and most farmers apparently feel that the only good goose is a dead goose. However, goose removal should not take the shotgun approach (pardon the pun) of targeting all geese for control.

As the article aptly points out, New Jersey is indeed troubled by many thousands of year-round resident, non-migratory, “golf course geese” that continually soil parks, ball fields and school grounds. On the Maurice River, Canada Goose herbivory on wild rice marshes have decimated the wetlands, and have adversely impacted many other species. These “local” (non-migratory) Canada Geese are joined in winter by an influx of many migratory Canada Geese – birds that breed in Canada and the high arctic and migrate thousands of miles to find food in winter. That not all geese are local is proven by the fact that, during this past winter alone, New Jersey hosted numerous White-fronted Geese (from northern Alaska), Cackling Geese (Aleutians), Ross’s Geese (Nunavut), Barnacle Geese (Greenland), and a Pink-footed Goose (Greenland and Iceland). The Pink-footed Goose, a first for New Jersey, was heralded on NPR and in *The Press of Atlantic City* and was enjoyed by hundreds of people.

The point is that potential draconian controls on geese in winter in New Jersey might have impacts on far more than the local problem geese. Some populations of high arctic migratory geese have experienced major population declines and, as a result, have seen targeted federal efforts and monies to aid their recovery. Even Snow Geese are not a black and white issue (pardon another pun); while Lesser Snow Goose (a race) populations have boomed, Greater Snow Geese apparently have not. (Both are present on the Delaware Bayshore, and I have found both in the piles of unused, discarded geese, left by “sportsmen,” that one encounters with some frequency when afield these days.) Pending decisions on control of geese should be mindful that arctic and local geese cannot be separated in winter; both local and arctic Canada Geese are identical in plumage, and all species of geese join together in fields and marshes.

Finally, winter flocks of geese are iconic images of wild New Jersey, long chronicled in waterfowl literature, art, and decoys – a bayman tradition and heritage today immortalized in museums in New Jersey and all along the coast. Geese are featured on kiosks and signage, on the New Jersey Coastal Heritage Trail, by the Delaware Estuary Program and on birding and wildlife

trail maps. Any benefits of requested goose control should be weighed against known ecotourism values as hundreds of birders and naturalists, not to mention responsible waterfowl hunters, visit the Delaware Bayshore region each winter to enjoy the spectacle of thousands of geese.

Controls on winter geese should be limited to propane cannons, noisemakers, herding dogs, falconry, and legal waterfowl hunting, and not employ more drastic measures such as poisoning and indiscriminate shooting. Egg addling and disruption of local breeding geese is a beneficial technique few would disagree with, and such local seasonal control (after migratory geese have left in early spring) would not impact arctic-breeding migratory geese. It is imperative that the US Fish and Wildlife Service weigh all the facts and interests, and particularly that US Fish and Wildlife Service should carefully verify the astonishing and rather hard to believe claim of \$4 million to \$8 million in goose damage to a single farm (as reported in *The Press of Atlantic City* 12 January 2009 article). Two final questions to both the Farm Bureau and land managers: Why isn't goose poop welcomed as free fertilizer for winter wheat cover crops? And why can't saltmarsh goose "damage" be seen as a cost-free creation of tidal mud flats for shorebirds (a disappearing commodity on the bayshore)?

Farm Bureau wants help on geese removal

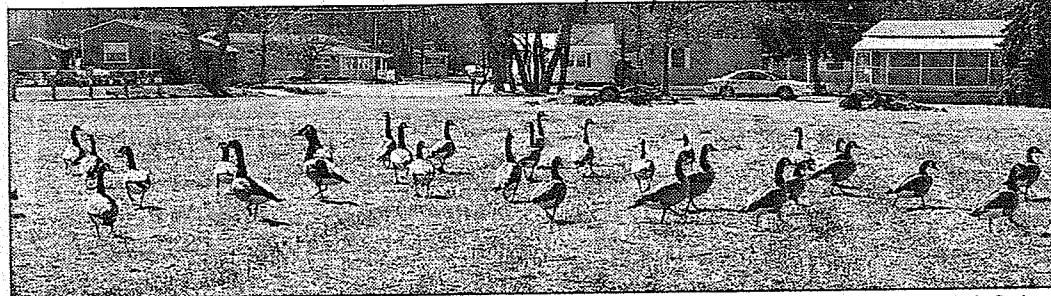
By MICHAEL MILLER
Staff Writer

3/14/11

Geese have been especially destructive to crops this winter, according to the New Jersey Farm Bureau, which is seeking federal permission to remove geese flocks.

The agency is soliciting comments from local farmers to provide support that would bolster the agency's request for relief from geese to the U.S. Fish and Wildlife Service, spokesman Peter Furey said. He said there were so many geese feeding in areas where the ground wasn't covered with snow that

□ See Geese, A6



Staff photo by Dale Gerhard

A small flock of Canada geese wander onto a field on Stimpson Lane in West Cape May. Reports say geese have been causing destruction to crops, ball fields and businesses.

Geese

(Continued from A1)

fields were being damaged.

"We consider the problem universal. What put a lot of farmers over the top was when snow cover started to disappear. The geese went crazy," Furey said. "It was like the ground was being plowed up."

Southern New Jersey is home each winter to large flocks of snow geese and Atlantic brant. But agricultural experts said Canada geese are the biggest culprits when it comes to crop damage.

The state has two populations of Canada geese — one that migrates south for the winter, and a resident population that abides New Jersey's cold months. Atlantic County Agricultural Agent Richard Van Vranken said the resident geese are the troublemakers.

"It's been a growing issue over the past 20 years. They build up in open fields on turf. And the issue isn't so much the damage they do but the mess they create," he said.

The resident population numbers about 76,000 statewide but more than doubles with the arrival each winter of migrating geese from the Canadian arctic. Furey said his agency wants the federal government, which regulates migratory waterfowl, to take action to cull the geese numbers.

"Farmers are fed up," he said. "We've had it with geese damage. They feast on cultivated crops and you have secondary issues like surface-water pollution and contaminated swimming lakes.

"There will be some dramatic consequences if we allow wanton destruction of crops by geese," he said.

Wes Kline, agricultural agent for Cumberland County, said heavy snowfall concentrated the flocks in a few bare spots.

"If you have winter wheat, they can create a lot of damage. It's a big crop in the western part of Salem and Cumberland counties," Kline said. "The biggest problem we're getting into in the summer is related to food safety with the potential for open irrigation ponds and surface water becoming contaminated."

Van Vranken said he has seen bigger flocks of geese in Buena Vista Township than he has in past years.

"I've noticed geese in the East Vineland areas where I've never seen geese before," he said. "They normally stop closer to the bay or the Delaware River. Having large flocks this far inland is unusual."

The birds' droppings foul ball fields across the state. The problem was so bad that the Cape May County Park & Zoo "adopted" some Canada geese that park officials think someone left at the pond in Middle Township.

These local geese regularly begged visitors for food and attracted more of their wild cousins in large concentrations, Parks Director Michael Laffey said.

"We found homes for some of them and brought the others inside the zoo," Laffey said. "That way we could deter other geese from coming here."

Laffey said the county is investigating effective ways to

keep geese off its playing fields. Plywood cutouts of dogs work for a while until the geese become accustomed to them, he said.

"We looked at a place in Monmouth County. They had cutouts of coyotes crouched down that look more aggressive," he said. "We've taken steps to control them, but it's an ongoing battle."

Farmers have more discretion than suburbanites when it comes to addressing geese damage. They can apply for permits to "addle" goose eggs, harass adults with noisemakers or even shoot them, said Nicole Rein, a wildlife biologist for the U.S. Department of Agriculture. Farmers and property owners can get federal permission to addle goose eggs by shaking them or coating them with vegetable oil to kill the developing embryo. The geese continue to incubate the addled eggs, which discourages them from laying more.

Rein has been busy this winter taking calls from farmers and property owners.

"There are harassment techniques: propane cannons and pyrotechnics, noisemakers, visual things like flagging fields or placing balloons," she said. "With any type of harassment, it's best when more than one method is used."

Meanwhile, Cape May County's Laffey said he plans to put up new informational signs at its lakes to educate the public about why they should not feed its ducks or geese.

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Snow geese fly Friday over the Edwin B. Forsythe National Wildlife Refuge in Galloway Township. The geese are problematic because they pull up and eat marsh grass, wheat and other plants, which can lead to environmental damage and erosion on farms and marshlands.

State adds spring snow geese hunt in effort to save plants and farms

■ The state will allow unlimited hunting of snow geese from March 11 to April 18, excluding Sundays, in an effort to reduce a population that reached 139,310 birds last year, a 33 percent increase over 2007.

By MICHELLE LEE

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GALLOWAY TOWNSHIP —

True to their name, the snow geese look like fresh snowballs on the tidal marshes. A plane swings by and they swoop into the air, turning the sky white.

While the birds can be a beautiful sight, the damage they cause by ripping up marsh grass and grain plants to eat the roots is not as pretty, according to scientists and farmers.

The geese transform marshes into mud flats vulnerable to erosion, said Kevin Holcomb, a biologist at Edwin B. Forsythe National Wildlife Refuge. At the same time, the grass reduction pushes out other native birds like rails, Holcomb said.

The problem got so bad, the refuge spent \$150,000 to rebuild a dyke and special hunts were held for six years to curb the population, which hit 25,000 at its peak, said Steve Atzert, the refuge manager.

"When they eat the spartina, they rip the entire root out," Atzert said. "It's like if you want an apple off the tree, it's like getting a backhoe and ripping the entire tree down."

The damage can be worse for farmers like David T. Sheppard Jr., who grows vegetables and wheat in the Cedarville section of Lawrence Township, Cumberland County.

Sheppard, who plants about 600 acres of wheat as a cash crop and to stabilize the soil, estimated the birds cost him about \$4 million to \$8 million in damage each year. "That's fertile soil we're losing every time, and it's really an air pollution problem, too," he said.

New Jersey officials will try

to reduce the snow geese population this spring.

The state Division of Fish & Wildlife created a new hunt to allow unlimited harvesting from March 11 to April 18, excluding Sundays.

Hunters will be allowed to use electronic calls and more shotgun shells. The change follows a recommendation made by the U.S. Fish and Wildlife Service, which did a detailed, several-year study on snow geese and their impact on the environment.

Snow geese are migratory birds that winter in the United States and breed in the Arctic and Canada. They started to increase in the 1970s when they found new homes and adapted to living in farms and wildlife refuges, said Larry Herrighty, assistant director of the state Division of Fish and Wildlife.

The global snow geese population is more than 5 million, a 300 percent increase since the 1970s, according to the U.S. Fish and Wildlife Service. The Atlantic Flyway population is about 1 million, which is more birds than the habitat can sustain, Herrighty said.

While there are no statistics for the economic and environmental damage they cause in New Jersey, Herrighty said the birds are a problem throughout the state, especially in coastal regions, and they have been moving inland. Last year, the state had about 139,310 birds, a 33 percent increase over 2007.

Kenneth Barnett, a Mullica Township, Atlantic County, resident who hunted snow geese for 24 years, appreciated the new regulations because they give him more tools.



Marsh at the Forsythe refuge has been ripped apart by the snow geese, which also damaged the refuge drive.

Barnett said snow geese are difficult to catch and hitting the current limit of 15 birds per day is already difficult.

"There's huge numbers of them and there are so many eyes looking for trouble," he said. "You have to keep on learning how to do it because the geese are getting smarter each year."

Using an electronic call will make decoys sound more realistic, Barnett said, and the spring hunt might encourage other hunters to chase snow geese because the season for other waterfowls will be closed by then.

Sheppard, the Cedarville farmer, said the new hunt is a great idea. Sheppard opens his fields to hunters from Maryland, Pennsylvania and New York, and he hoped the spring season might bring out

more people to reduce the snow geese population. "If you can go out there and keep (the birds) moving, they might get that many more," he said.

Likewise, Atzert, the Forsythe refuge manager, agreed the new regulation is the right move.

Atzert noted the federal proposal to increase snow geese hunting has been endorsed by other environmental officials across the country, including the country's four flyway councils, the administrative agencies that set up bird migration policies. "This has been saluted by everyone who deals with snow goose management," Atzert said. "They've been talking about this for some time, and it's time to do this."

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On the Web

To learn more about snow geese and the new hunting regulations, visit the state Department of Environmental Protection Fish and Wildlife Web site at:

www.state.nj.us/dep/fgw

or the U.S. Fish and Wildlife Service Division of Migratory Bird Management Snow Geese Web site at:

www.fws.gov/migratorybirds/issues/snowgse/tblcont.html

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On the Back Cover:

An immature **Bald Eagle** catches a very large **Gizzard Shad** from an open lead in the mostly frozen, northernmost Heislerville WMA tidal impoundment.

– Photos by Clay Sutton, 8 December 2010