

**WINTERING
RAPTORS AND WATERFOWL
ON THE MAURICE RIVER
CUMBERLAND COUNTY, NJ
1998-1999**

The Twelfth Year of a Long-term Study



American Kestrel, photo by Clay Sutton

**Clay Sutton and James Dowdell
April 1999**

Wintering Raptors and Waterfowl on the Maurice River, 1998-1999: The Twelfth Year of a Long-term Study

by Clay Sutton and James Dowdell

The Winter of 1998-1999 marked the twelfth winter season that waterfowl, hawks and eagles were intensively studied along the length of the Maurice River in Cumberland County, New Jersey.

Because an extensive review of this project has recently been published (see: "Status and Trends in Wintering Raptors and Waterfowl on the Maurice River: A Ten Year Study," *Records of New Jersey Birds*, Summer 1998, Vol. XXIV, No. 2), this year's report will be somewhat informal, a format which will allow for discussion of some of the interesting aspects, and the vagaries, of this ongoing long-term study.

Raptors were counted on 10 dates between December 18, 1998, and March 17, 1999. Waterfowl were enumerated on nine dates -- not counted on the day of the annual eagle census.

In addition to the winter surveys, one day was spent monitoring raptor migration on the Maurice during the fall. In 3 ½ hours on November 5, 1998, 104 raptors were seen migrating from observation sites at East Point and Heislerville. Three Bald Eagles, 17 N. Harriers, 3 Sharp-shinned Hawks, 1 Cooper's Hawk, and 21 Red-tailed Hawks, as well as 4 Black Vultures and 55 Turkey Vultures were recorded migrating west up the Delaware Bayshore, once again confirming and enumerating the classic phenomenon.

Raptors recorded for the 1998-1999 winter season are shown in Table 1. **Black Vultures** averaged 10 per survey, which is exactly the average for the first ten years of the survey. The peak of 37 seen together on January 9, alludes though to the true number using the Maurice River. **Turkey Vultures** averaged 80.8, slightly higher than the ten-year average.

Because of the mild winter, **Bald Eagles** were not as numerous as in some recent winters. The average of 7 per survey just bested 1997-1998's average of 6.6. The peak of twelve on February 10 was good; about 15 individuals were estimated over the course of the winter. A single **Golden Eagle** was seen on one survey date and also reported by others on a non-survey date.

Northern Harriers were above average at 23.2, just under the best year's average of 24. As usual, numbers recorded varied according to tide and wind velocity.

At 3.2 birds per survey, **Sharp-shinned Hawks** posted their third best showing in 12 years. **Cooper's Hawks** at 1.7 were above the ten-year average of 1.4, yet well below last year's average of 3, breaking the recent trend. At least two pairs of Cooper's Hawks were noted in courtship toward the survey's end (and also one pair of N. Harriers) indicating, again, nesting in the region.

Red-tailed Hawks were decidedly above average this past winter. The 45.2 average was the highest in twelve years, besting 1994-95's 42. They are clearly showing an upward trend on the Maurice River. Many will stay and nest as evidenced by courtship observed in February and March.

Of the less common species, 3 **Red-shouldered Hawks** wintered along the river this season, but for the second year in a row (and only the second time in twelve years) no **Rough-legged Hawks** were seen at all. This compares to an average of two per survey in the early years of the study. Due to the mild winter, Rough-legged Hawks were extremely scarce everywhere in New Jersey this past winter.

Peregrines were sighted three times, with at least two birds involved: an adult male and an immature female. No **Merlin** were seen for the seventh miss in 12 years.

American Kestrel continued their downward spiral. The 0.9 recorded per survey is second lowest ever, second only to last year's average of 0.5. Were it not for the three migrant Kestrel seen on March 17, the average would have been even lower at 0.6. The Kestrel is disappearing as a wintering bird along the Maurice River and elsewhere in South Jersey.

Despite the mild winter, waterfowl, in general, were above average. This seems surprising in light of the extremely mild fall weather which theoretically should push fewer waterfowl to the region from the north. A cold late December brought an influx of ducks, but mild weather in February and March meant that the early spring buildup we have come to expect never occurred. Waterfowl recorded during winter 1998-1999 are shown in Table 2.

Most of the region's **Snow Geese** were to the west of the Maurice this winter, and the peak count was only 4,300, on February 10. The average of 2,121 was exactly on the 10-year average of 2,125. **Canada Geese** move around a great deal, many only using the river for nighttime roosting. Numbers varied from 75 to 650. The average of 262 is well above the 10-year average of 119. Canada Goose numbers are continuing to grow regionally.

Black Ducks, with an average of 2,456 made their best showing since 1992-1993. Their peak of 8,060 on December 27 was a mere 60 birds shy of their all-time peak obtained in 1987-1988, the first season for this study. The average 2,456 easily bested the 10-year average of 1,932. **Mallards** also made a good showing. The average 1,189 was slightly above the 10-year average of 1,013, and the peak of 3,325 on January 19 was the third highest ever.

Of the puddle ducks, only **Pintail** bucked the trend. An average of 369 was below the 10-year average of 542, and the peak was a paltry 569. Pintail clearly bypassed the Maurice River this winter, and it appears from preliminary reports that they were found in low numbers throughout the region in winter 1998-1999.

It appears that the normal upper river concentrations showed the same pattern as last year. Due to mild conditions, ducks peaked much earlier than usual and did not linger as they "normally" do most years -- choosing to rapidly head farther north instead.

One factor clearly continuing to effect regional waterfowl distribution is the emergence of the Bivalve PSE&G Salt Marsh Restoration Site as a major waterfowl use area. This newly flooded area attracted thousands of waterfowl this past winter, and will continue to do so until mudflats eventually become vegetated with *Spartina alterniflora*. Because we felt that the Bivalve site was holding waterfowl which would otherwise be distributed along the river, we added it as a waterfowl census site [as we did last year]. Accordingly, the past two year's methodology then differed slightly from that of the previous ten years. While totals of key species were relatively unaffected, note however, that this newly flooded area continues to produce new records for a few dabbler species. The peak of 154 Northern Shoveler is by far a new record . Likewise, the 400 Gadwall and 160 American Wigeon are new survey records for the river [Mute Swan set a record as well, albeit dubious.....]. Also, the peak of 950 Green-winged Teal, counted on March 5, is a good total. Many of these teal were at the Bivalve site. We will continue to census this site as long as we feel it is attracting and concentrating Maurice River region waterfowl.

Of interest is that the American Wigeon totals harken back to "the old days" of the early 1970s, when the Heislerville impoundments always held large numbers of wigeon.

Waterfowl diversity was good in 1998-1999, and 25 species were recorded. In addition to the Bivalve diversity mentioned above, the Maurice River Cove held good numbers of divers in early winter. On December 27, an estimated 5,000 scoter and 5,000 scaup were recorded from the East Point count site. Part of a regional concentration, they were no doubt attracted to a set of clams or oysters in the area.

One of the most interesting aspects of this year's study was the clear effects of wind and tide on survey results. We have long known of these impacts -- and that is why a minimum of eight surveys is necessary: to be sure that we hit peak conditions throughout the winter's phases.

While we attempt to schedule census days for clear blustery winds with high tides, this is not always possible. Winds promote the soaring of raptors, particularly eagles (although usually the most harriers are seen in calmer conditions). High tides make waterfowl far more visible; they are on top of the marsh as opposed to hidden down in creek beds. The "best" surveys are when these conditions coincide, particularly if eagle activity flushes waterfowl from otherwise hidden coves.

During 1998-1999, the differences between the January 19 waterfowl survey and the January 29 count can largely be attributed to tide. The particularly low count of February 22 was in part tide related, although it was clear that many waterfowl had departed for the north.

The near record Black Duck count obtained on December 27 was weather related. Because it was done as part of the Belleplain Christmas Bird Count, conditions could not be "chosen." Because the day was almost windless, and because of duck hunting season, over 5,000 Black Ducks were rafted up in Maurice River cove (ducks will leave the marsh and safely sit in Delaware Bay in hunting season if winds permit). In short, due to glassy calm conditions, ducks that would have normally been unseen and uncountable were easily seen and counted. Also low temperatures had clearly brought many new waterfowl to the region. It was an interesting example of weather's impacts on our counts -- and it led to the highest Black Duck total achieved since the first year of

the study. It was a gratifying corroboration of a total which we began to wonder if we would ever attain again.

Finally, a number of sightings of unusual birds were accrued during the course of the 1998-1999 survey. Foremost was the Townsend's Solitaire, found at East Point by Rick Blom on December 27 and seen throughout the study period (still present March 25). Only the 5th State Record for this species, it was the first ever away from the northwestern mountains of New Jersey for this Rocky Mountain species.

Also very unusual was a Clay-colored Sparrow found wintering near Port Norris, a rare winter record for this western species. A Glaucous Gull was seen at Bivalve, and seven Wild Turkey were watched at the Peek Property on February 10. A Short-eared Owl wintered at East Point, and an American Bittern was seen there on January 19. At least seven Pied-billed Grebes wintered along the Maurice River this year.

It was a good winter on the Maurice River. We gathered good data which continues to confirm and corroborate previous studies, and which solidifies the role of the Maurice River in regional raptor and waterfowl concentrations. We thank Citizens United once again for the opportunity to work on this important ongoing project. We also thank the Natural Lands Trust, Inc. (NLT), for the use of the Peek Property as our northernmost site. We particularly thank Steve Eisenhower for his interest in the project. We have included Table 3 here for the NLT to show the specific sightings from the Peek site. We look forward to continuing this unique project for CU in the coming years.

--- Clay Sutton
Naturalist / Biologist
129 Bucks Avenue
Cape May Court House, NJ 08210

Table 1

Raptors Recorded on the Maurice River
Winter of 1998-1999

SPECIES	DATE:	12/18	12/27	1/5	1/9	1/19	1/29	2/10	2/22	3/5	3/17	Avg.
Black Vulture		13	2	2	37	5	3	11	5	12	10	10.0
Turkey Vulture		137	74	53	42	106	77	131	51	59	78	80.8
Osprey											1	
Bald Eagle		3	5	8	4	8	8	12	7	9	6	7.0
N. Harrier		24	17	34	16	22	29	31	17	25	17	23.2
Sharp-shinned Hawk		5	4	7	1	5		3	2	2	3	3.2
Cooper's Hawk		2	1	4	3		1	1	1	2	2	1.7
Northern Goshawk			cw									
Red-shouldered Hawk				1			1				1	
Red-tailed Hawk		56	34	39	25	48	48	57	40	54	51	45.2
Rough-legged Hawk			*									
Golden Eagle			1	**								
American Kestrel		1				2	2	1			3	0.9
Merlin ***												
Peregrine Falcon							1				1	
Total Raptors		241	138	149	128	196	170	247	123	163	173	172.8

cw N. Goshawk -- seen count week (cw) 12/24 by Bob Barber at Bivalve
 * Rough-legged Hawk seen at nearby Thompson's Beach, also on 12/24, by Rick Blom
 ** probably the same Golden Eagle also reported 1/1/99 at Heislerville
 *** no Merlin sighted (missing for the 7th year in 12 years)

Table 2
Waterfowl Recorded on the Maurice River: Winter of 1998-1999

SPECIES	DATE:	12/18	12/27	1/5	1/19	1/29	2/10	2/22	3/5	3/17	Avg.
Tundra Swan		1							4		
Mute Swan		13	31	32	10	25	49	76	68	69	
Snow Goose		1,391	3,050	3,000	1,950	1,751	4,300	1,050	1,100	1,495	2,121
Canada Goose		75	275	650	86	470	130	75	151	442	262
Wood Duck									3	13	
Green-winged Teal		354	116	392	756	235	71	153	950	917	
Am. Black Duck		1,075	8,060	2,210	3,255	1,696	1,806	823	1,345	1,834	2,456
Mallard		508	567	2,619	3,325	1,413	664	393	374	835	1,189
N. Pintail		50	416	312	569	560	489	299	385	243	369
Blue-winged Teal										*	
N. Shoveler		6	10	1			53	111	154	108	
Gadwall			6	27		4	135	110	325	400	
American Wigeon				1	2		60	77	47	160	
Canvasback			9		15	27	27	15	27	26	
Ring-necked Duck			22								
Greater Scaup			50								
Lesser Scaup			1				24	24	53	39	
Scaup (spp.)			5,100			100			10		
Oldsquaw				1					1	1	
Black Scoter		5	6		4	1	5				
Surf Scoter		75	7		5	1		1			
Scoter (spp.)			5,008		250	2					
Common Goldeneye		1	47	6	6		4	12	16	8	
Bufflehead		81	259	95	130	113	120	99	95	98	
Hooded Merganser			25	1	7		8	12	3	5	
Common Merganser								9		4	
Red-breasted Merg.		14	89	164	21	25	72	46	84	25	
Ruddy Duck		1	2		4				3		
Total Waterfowl		3,650	23,156	9,511	10,395	6,423	8,017	3,385	5,198	6,722	

* First returning Blue-winged Teal noted on 3/25/99

