WINTERING RAPTORS and WATERFOWL

on the MAURICE RIVER

CUMBERLAND COUNTY, NEW JERSEY

The 39th FIELD SEASON
of a Long-term Avian Use Study

and the Fourth Season of the new and revised <u>Volunteer</u> Count Protocol

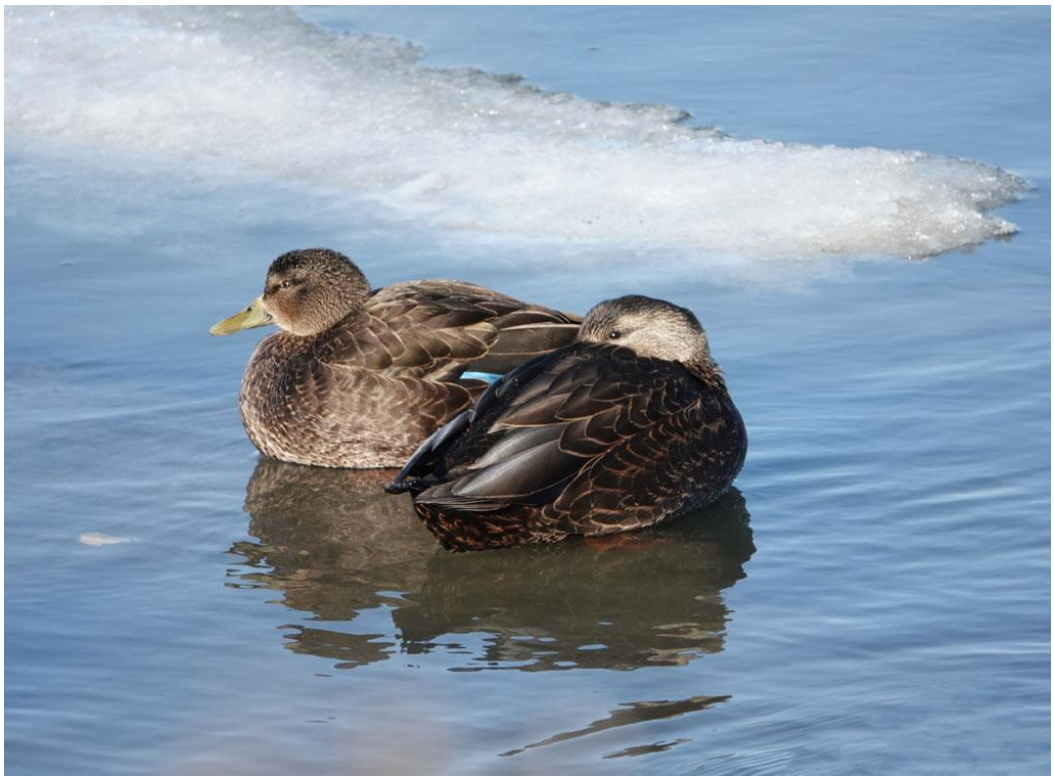
Findings for the WINTER PERIOD: December 2025 through March 2026

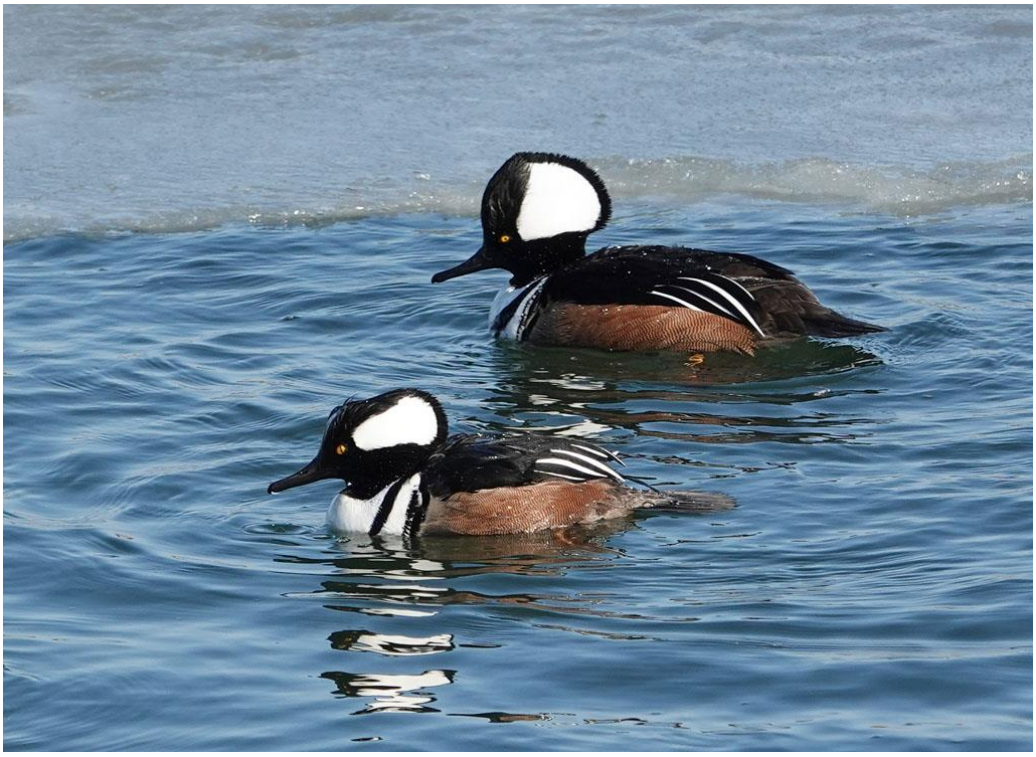
Research and Monitoring Sponsored by:
CU Maurice River

Red-tailed Hawk (here a brown-tailed immature) was formerly one of the most abundant raptors on the Maurice River in winter. In recent years, for a variety of reasons, that has no longer been the case. *(photo by Clay Sutton)*

Clay Sutton

June 2026





American Black Ducks *(top)* have long been a signature species of the Jersey Coast and the Delaware Bay. In winter 2025-2026, only modest numbers of Black Ducks were found on the Maurice River, continuing a recent trend. Diving Duck numbers were substantial on the Maurice in winter 2025-2026; here two drake **Hooded Mergansers** *(bottom)* seem unfazed by the icy conditions. *(photos by Clay and Pat Sutton).*

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Introduction and Background: ***"An old-fashioned winter!"***

Following the previous thirty-eight years of long-term winter raptor and waterfowl status and distribution studies on the Maurice River (a major Delaware Bay tributary), this current report presents the results from a continuation of these unique studies: the 39th consecutive winter-season monitoring of the regionally significant birds of prey and waterfowl populations that spend the winter on the tidal Maurice River. All previous seasonal summary reports, detailing long-term trends in raptors and waterfowl on the Maurice River (including a comprehensive 30-year report and 35-year recorded program), are available on the Citizens United to Protect the Maurice River and its Tributaries, Inc. (CU Maurice River) website at:

www.cumauriceriver.org/raptor-and-waterfowl-surveysstudies/

During the winter of 2025-2026, Maurice River raptors and waterfowl were monitored for the 39th consecutive season. However, for the fourth time in these 39 years, count protocols and techniques were changed somewhat dramatically. Due to the documented continuing decline of some raptors and most waterfowl on the river, and more importantly, changes on the river itself, the protocols used for the first 35 years were found to be no longer applicable or doable. Without going into all causes and effects (see previous reports referenced above), suffice it to say that continuing and emergent access issues, and associated declining views (viewability of birds) have combined to render original protocols no longer valid or usable. The major decline of wild rice acreage and the rapid and accelerating encroachment of *Phragmites* have resulted in fully half of prior point count sites being increasingly and severely compromised. With this the reality, and following consultation with CU Maurice River staff, it was deemed necessary and timely to revamp our studies, choosing new protocols for these studies as they go forward. In summary, as it became imperative to either change tactics or end the studies, we chose to continue.

The new methods/protocols, first used during Year 36 and subsequently, were again used during the current season, Year 39 (and to be used in subsequent future seasons as long as they are practicable), are as follows:

1. Instead of the two observers used for the first 35 years (the same observers: Clay Sutton and Jim Dowdell), **only one observer conducted the counts** (Clay Sutton). While the first 35 years were contracted by CU Maurice River, the Year 36-39 counts were carried out on a volunteer (*pro bono*) basis by Clay Sutton, and this will be the case going forward.

2. **One-half of the original point counts were used. Four sites** (East Point, Heislerville WMA, Bivalve, and the Galetto dock [on the upper river]), **were employed** in Years 36-39. By "half," that is to say that of the prior nine, the causeway Bridge North and Bridge South were in effect counted as a *single site* in recent past years as the *Phragmites* continued to impact views. Bridge North and Bridge South were dropped; also eliminated were Leesburg, the Sweet Meadow area, and the Peek Preserve.

3. Because of "half the observers" and "half the sites," **observation time was doubled** at the 4 remaining point count locations. Where previous protocol called for 45 minutes of observation at a site, the **new methodology required 90 minutes** (1.5 hours) per site. It was assumed that greater time spent in-part made up for the lack of the second observer and the fewer sites visited. It was theorized that additional time spent would increase the potential that hidden, distant, and itinerant birds would be spotted and counted.

There are valid scientific precedents and cause for a long-term monitoring study to reduce the effort (if and when necessary) and include only a subset of original data points (in this case: count sites). When any study finds it difficult to carry out data gathering due to site changes, for example when some sites produce good data and other sites no longer contribute, there is good cause to downsize to a subset of points. Essentially, if a subset produces good results, comparable to the past, while others produce little, there is little need to continue to expend time and energy on those sites which have changed and are no longer applicable. Those point count sites eliminated in Years 36-39 were no longer producing results due to changes in the habitat: primarily extensive *Phragmites* encroachment that was both reducing wildlife use (raptors and waterfowl) and the basic ability to see and count any birds in the event they were still present. (The Leesburg site loss of visibility was due more to land-use and access changes – the industrialization of the site). These changes and reduction to a subset of data can be reviewed and evaluated in a few years to see if our suppositions here are correct, but based on the preliminary findings of Years 36-39, the subset provided valid results that are surprisingly comparable to our past efforts, methodologies, and findings.

Findings: ***"A reduced effort, but we have continuity."***

Core winter raptor and waterfowl monitoring continued for the 39th consecutive winter season. The Maurice River was sampled on four dates between December 24, 2025 and March 25, 2026. These findings are presented in **Table 1**. Also shown in Table 1 are the winter 2025-2026 average counts and peak daily counts for key species. The four survey dates in this past winter season, "Year 39" of monitoring on the Maurice, bring our cumulative total of winter surveys to 360 over the 39 years, dating back to the study's inception in 1987. Such consistent coverage and methodology give us an unparalleled perspective on the changing avian resources of the Maurice River. (See 30-year report and 35-year program). Always remember and note however, that protocols were changed considerably in Years 36-39, in order to react to and accommodate changing physical conditions on the Maurice River.

As in past seasons, Cumberland County's other major Delaware Bay tidal tributary, the Cohansey River, was also sampled (albeit on only two occasions) during the winter period. For 36 years the Cohansey has been monitored as a "comparison river" or "control" to ascertain whether findings on the Maurice were representative; that is, whether they were either localized or more widespread on the Delaware Bayshore. Cohansey River results for winter 2025-2026 are shown in **Table 2**. The two survey dates on the Cohansey River during the current season bring

the cumulative total to 64 winter surveys over the 36 years of this comparative study dating back to 1990. The depth of this effort and data set allows for strong comparisons, contrasts, and corroborations.

Cohansey River protocols over the years have been identical to the Maurice, but these too have been adjusted during the past three volunteer seasons, and for similar reasons to the Maurice: changing habitats, viewscapes (viewability), and access. I feel the comparisons remain as similar and valid as possible. While no sites have been totally dropped on the Cohansey, real-world conditions of tidal flooding blocking access were frequent. Also, increased acreage of Dix WMA is a good thing (!), but at the same time has led to increased hunting pressure and conflicts (several times I had to avoid point count sites due to active hunting parties). This, when combined with declining views due to *Phragmites*, as well as habitat changes due to accelerating conversion of cropland to ornamental nurseries, has meant that *de facto*, the Cohansey protocol has also been reduced to a smaller subset of sites, even if not done "officially" (geographically) as with the Maurice. Cohansey River surveys were also carried out on a volunteer basis by Clay Sutton.

Discussion: "*A missed opportunity…*"

So far, this report has been relatively of the boiler plate variety, with methodology and background largely cut and pasted from previous reports. From this point on, discussion is current and up to date. Because this report is so late in coming, and far from timely in regards to the field work calendar, the following analyses of the 39th season will be presented in a summary, point-by-point form. I feel it is better to be brief rather than any later, in a hope that the findings and concerns might be reasonably current and applicable.

1. As with every winter season, the relative abundance and phenology of wintering waterfowl (and raptors) found on the Maurice River were in large part dictated by the weather. We have mentioned in the past that the larger numbers of waterfowl are found during the colder winters. Our thoughts have been that cold winters and freeze-ups were a thing of the past, and that we might never see the conditions that this study encountered in the 1980s.

2. One might say that the conditions that we longed for, "an old-fashioned winter," finally occurred during winter 2025-2026. Without a deep dive into weather and climate reports, to quote regional news sources, the previous winter season that was this cold on average was in 1994-1995. Yet other sources say it was actually the winter 1985-1986! Regardless, it was cold, and the Maurice River froze up to a degree and for a period not seen in several decades.

3. A major ice storm occurred on January 25-26, with freezing conditions that lasted for over a week. A true blizzard hit on February 23, with high winds and some regional snow falls of 18 inches reported. This snow (and ice) and low temperatures would also persist for over a week. Finally, sustained gale force winds hit the region on March 16, prolonging the impacts of the winter conditions throughout the region.

4. These storms and below average temperatures led to major freeze-ups and well-reported impacts to waterfowl. Numerous ducks and geese were killed by these conditions throughout the region. On the Cape May peninsula, hundreds of American Woodcock perished as frozen ground and snow/ice cover prevented them from feeding. Anecdotally and largely from hearsay, impacts to ducks and geese were substantial, yet remain

unquantified to our knowledge. In addition, as in the previous winter, avian flu was again known to be a factor in bird deaths in the region.

5. The extent of winter impacts on the Maurice River is unknown. This is in-part because this study unavoidably missed the window of opportunity to monitor waterfowl and raptors during these winter freeze-up events.

6. *Unfortunately, the prolonged freeze-up began the very day before this volunteer counter was admitted to the hospital for abdominal surgery (liver cancer resection at Penn Medicine in Philadelphia). Recovery from the surgery to the extent to allow field work again did not happen until well after the second storm (the blizzard) and icy conditions abated. In short, I sadly missed the opportunity to document the reaction of waterfowl and raptors to the extended period of freezing temperatures. By the time I was in the field again, spring migration was well under way. Missing such winter events was unfortunate, but unplanned and unavoidable. Recovery from surgery was also a factor in this summary report being less than timely!*

7. It was reported anecdotally that waterfowl numbers on the river were higher than usual, and more numerous than in recent winter seasons. This was not seen in this study's counts done both before and after the freeze-up events. It was mostly a below average waterfowl season during our counts conducted in late December, early January, February and March. That said, while the big three (Am. Black Duck, Mallard and N. Pintail) were down in numbers, Green-winged Teal again posted substantial numbers. Diving ducks, primarily scaup, were again numerous on the lower river and in Maurice River Cove. Missed due to our gap in coverage, 1,000+ scaup were reported by Tony Klock on the lower river at Bivalve on January 31. Five Common Eider were recorded by others (fide: eBird) at East Point on January 18, providing one of very few known records for Cumberland County and the mid-to-upper Delaware Bay.

8. For raptors, numbers were largely modest. Bald Eagle numbers were again good, but potential increases and peak counts from during the freeze-ups were not obtained due to our limited schedule. Northern Harriers were about par when compared to recent, if not historical averages. Once again, Red-tailed Hawk numbers were well below averages – even the lower averages of recent years. We are seeing a precipitous decline. See our 2024-2025 report for more information and discussion on the topic of declining Red-tails.

9. The findings of our 2025-2026 winter monitoring largely confirmed and corroborated those results from the past decade of efforts on the Maurice River. But as explained above, we cannot put complete stock in our findings because a large part of the winter was missed due to medical issues. Cohansey River results seem to mirror those of the Maurice, but again, there was far less than full-season monitoring there either. Of major note however was the 94 Sandhill Cranes found on December 28 during the Cumberland County Christmas Bird Count, a new high count for the "Cohansey Cranes," and a new maxima for New Jersey. This study's efforts found 63 cranes on the Cohansey on February 21.

10. While this may be a brief and bulleted form report, an in-depth report and full analyses are planned after the conclusion of the 2026-2027 season (the 40th season). And if there is a silver lining in this past truncated season (and resultant gaps in the data), it is that we have kept the studies going. We have continuity of data collection and reporting that goes back a full 39 winter seasons. Few studies can make such a claim, and we look forward to increased efforts during our milestone 40th Year.

Summary: ***"A new normal?"***

While winter raptor numbers remained regionally significant, among hawks, once again, no American Kestrels were recorded during the past winter season. This is the fifth time in 39 years that Kestrel have been missed during our survey efforts, but marks three years in a row with "zero" Kestrels present. As past reports have explored in-depth, this is undoubtedly linked to the loss of high marsh, and the loss and conversion (to ornamental nurseries) of former agricultural lands along the Maurice River survey route.

Two of the Maurice River's hallmark hawks, Northern Harrier and Red-tailed Hawk, continued to show extremely low counts compared to the earlier segments of the study. Year 39 tallies were well below long-term peaks and averages, and the alarming downward trend continued for these two Maurice River and Delaware Bay signature raptors. The long-term downward trends for Northern Harrier and Red-tailed Hawk continue to be significant, dramatic, and disturbing. When Year 39 is reviewed in relation to the findings of previous years, the entire 38 previous years of study, it is clear that things have changed drastically for these two keystone raptors of the Maurice River.

In years 36 through 39 of our long-term Maurice River winter raptor and waterfowl studies, drastically changing and accelerating conditions on the river dictated major changes to our approach. Protocols were changed substantially, including going to a subset of point count data that we hope will prove beneficial, accurate, and valid. While one cannot fully compare and contrast the findings of these four years with the former 35, particularly in light of Year 39's minimal effort, there are certain "markers" in the data set that hint at the new protocol being quite valid. Even though the numbers of many ducks were down, high teal numbers compared favorably with recent (old protocol) segments. Although Red-tailed Hawk and Northern Harrier numbers were low, raptor diversity and numbers of low-density (and low detection-rate) species such as secretive Cooper's Hawks were similar to recent years. Vulture numbers continued high, and Bald Eagle peaks and averages were on par with recent high numbers. Guardedly, I can say that the new protocols allow for a favorable comparison with the old, allowing us to continue to compare, contrast, confirm and corroborate current findings with our past data. Going forward, this should allow us to confidently record and evaluate long-term population trends.

Because of the fewer surveys of this volunteer effort, this probably means that peak numbers should be given greater weight and higher value than averages. With fewer surveys, there is less likelihood to hit the true peak numbers present (those dictated by phenology, weather, cloud cover, wind, tide, etc.). Conversely, more surveys should yield higher averages as "better days" possibly occur weather-wise. Beyond the count protocol, we may have introduced a possible negative bias by carrying out fewer surveys, but a bias that can also be possibly minimized by using peak values (best count) rather than the average when comparing results to the former five-year segments. We of course will see where the next few years take us, and we will continue to evaluate the success of the new protocols. We will evaluate both the validity of the new methods and the efficacy of the comparisons as we go forward to the coming five-year segment mark, and the planned major analyses (and report) at the conclusion of the landmark 40th winter season.

Given all the above caveats, the results of our 39th winter season of raptor and waterfowl studies on the Maurice River have not only again verified and confirmed our observed long-term trends over the many years, but also have strongly supported and substantiated the alarming findings from the most recent decade. There is now little doubt that the cumulative and compounding effects of climate change and resultant sea level rise continue to accelerate and negatively impact the raptor and waterfowl populations of the river and the region. While this

remains a hypothesis, it is a strong theory and a basis for extreme concern and needed action. Regional warming, sea level rise, increasing salinity, and the changing habitats – the initial loss of *Spartina patens*, the more recent loss of wild rice, and the rapid and accelerating encroachment of *Phragmites* in-turn eliminating *Spartina alterniflora* – will all be further addressed and evaluated in upcoming reports and planned papers. Avian flu remains an emergent and unknown factor in our region, but a threat that requires continued monitoring and assessment.

To continue to document these disturbing changes and unsettling downward trends is today an important goal of this long-term project, even though this was not something even remotely considered at the outset of these conservation, advocacy, and protection-oriented studies 39 years ago, way back in December 1987. Such documentation is why long-term studies are highly important, and why we continue to monitor raptor and waterfowl populations in these times of great and rapid change. Much of what we have chronicled in recent years is not good news by any means, but it is crucial news that needs to be reported.

Acknowledgements: ***"It takes a village…"***

I commend and thank CU Maurice River for sharing these concerns, and continuing to encourage and support this important work. I thank the officers, all of the staff, the volunteers, and the members of CU Maurice River for their yeoman efforts in protecting the river and its resources, and for their continuing vision and belief in the innate and deep values of this long-term research effort. I particularly recognize and thank Karla Rossini and Jane Galetto for their focused and ongoing concern for the changes on the river.

I remain grateful to Jim Dowdell for his amazing 35 years of keen involvement and collaboration; these studies would be far the poorer without his great interest, efforts, and skill. Dustin Welch of Natural Lands has generously shared sightings from the Peek Preserve and other Natural Lands sites, and I graciously thank him. I greatly appreciate and acknowledge Paul Kerlinger's encouragement and deep and ongoing interest in this long-term monitoring project. I thank Pat Sutton for her insight and patience in helping me put the Year 36-39 reports together; I couldn't have done it without her.

Nor could I do it without all of the CU Maurice River supporters. Thank you! I continue to be proud to represent CU Maurice River as we all learn together. And we can join together to celebrate the good news – that in winter season 39 we have continued the long-term data set, a continuous monitoring effort and consecutive data set with no breaks. Despite challenges, each year we continue to "take the pulse of the river." There is no other study like this in New Jersey.

– Clay Sutton

June 2026

TABLE 1
Maurice River
Winter Raptor and Waterbird Survey – Year 39

Maurice River - Winter 2025-2026					
DATE	12/24	1/12	3/9	3/25	AVG.
LOONS to CORMORANTS					
Red-throated Loon	1				
Dbl-cr Cormorant			13	320	
BITTERNS to VULTURES					
Great Blue Heron	15	10	3	6	
Great Egret	1		1		
Black Vulture	10	**20**	17	5	13
Turkey Vulture	146	**151**	110	73	120
WATERFOWL					
Gr. White-fronted Goose					√*
Ross' Goose					√*
Snow Goose	1	500	**1500**	0	500
Cackling Goose					√*
Canada Goose	80	**303**	288	255	232
Mute Swan	6	2	4	6	
Wood Duck			2*	2	
Gadwall		2		60	
Am Black Duck	**371**	119	67	42	150
Mallard	21	**59**	41	2	31
Northern Shoveler		2		26	
Northern Pintail	0	6	**18**	0	6
Green-winged Teal	0	132	**2653**	1151	984
Common Teal			1*	1*	
Canvasback	1				
Ring-necked Duck	120	90	110	160	
Greater Scaup		√	√		
Lesser Scaup		√	√		
Scaup (sp.)		100	410	6	
Common Eider		5*			
Surf Scoter	1		3	4	
Black Scoter			1	252	
Scoter (sp.)		20	20	150	

December 2025 through March 2026

Peak counts
shown in **Bold Face**

*** Seen on date other than official survey date or by other observers**

TABLE 1 (page two)
Maurice River
Winter Raptor and Waterbird Survey – Year 39
December 2025 through March 2026

Maurice River - Winter 2025-2026					
DATE	12/24	1/12	3/9	3/25	AVG.
WATERFOWL (continued)					
Long-tailed Duck		16			
Bufflehead	57	**82**	53	17	52
Com. Goldeneye		1	1		
Hooded Merganser		13		1	
Com. Merganser		89*	1		
Red-br Merganser	1	7	**47**	0	14
Ruddy Duck	1				
DIURNAL RAPTORS					
Osprey			1	21	
Bald Eagle	20	22	12	**28**	20.5
Northern Harrier	15	**16**	7	5	10.75
Sharp-shinned Hawk	1	0	0	0	0.25
Cooper's Hawk	1	0	1	1	0.75
Northern Goshawk	1*				
Red-shouldered Hawk	1	1	1	0	0.75
Red-tailed Hawk	**6**	5	4	3	4.50
American Kestrel	0	0	0	0	0.00
Merlin	0	1	0	0	0.25
Peregrine Falcon	0	0	0	0	0.00
GROUSE to CRANES					
Ring-nk Pheasant			1		
Wild Turkey			2		
Clapper Rail					√*
SHOREBIRDS					
Semipalmated Plover	2				
Killdeer	1		7	3	
Greater Yellowlegs	26	11	14	11	
Dunlin		1400		600	
Wilson's Snipe		3			
American Woodcock					√*

Peak counts
shown in **Bold Face**

*** Seen on date other than official survey date or by other observers**

TABLE 1 (page three)
Maurice River
Winter Raptor and Waterbird Survey – Year 39
December 2025 through March 2026

Maurice River - Winter 2025-2026					
DATE	12/24	1/12	3/9	3/25	AVG.
JAEGERS to ALCIDS					
Laughing Gull			1	4	
Bonaparte's Gull			60	2	
Ring-billed Gull	100	√	√	√	
Herring Gull	√	√	√	√	
Iceland Gull					√*
Lesser Bl-backed Gull					√*
Glaucous Gull					√*
Gt Bl-backed Gull	√	√	√	√	
Forster's Tern				2	
PIGEONS to WOODPECKERS					
Belted Kingfisher	2	3		2	
Common Raven	1	1		2	

Peak counts
shown in **Bold Face**

*** Seen on date other than official survey date or by other observers**

TABLE 2
Cohansey River
Winter Raptor and Waterbird Survey
2025 - 2026

Cohansey River - Winter 2025-2026			
DATE	2/21	2/28	Avg.
BITTERNS to VULTURES			
Great Blue Heron	2	1	
Black Vulture	1	0	0.50
Turkey Vulture	20	20	20
WATERFOWL			
Gr. White-fronted Goose			
Ross's Goose		1*	
Snow Goose	3,000	0	1,500
Cackling Goose		√*	
Canada Goose	1500	1500	1500
Mute Swan	2	2	
Wood Duck		2	
Am. Black Duck	20	0	10
Mallard	0	3	1.5
Northern Pintail	0	0	0
Green-winged Teal	30	0	15
Hooded Merganser	4	0	
Common Merganser		5	
DIURNAL RAPTORS			
Bald Eagle	13	**15**	14
Northern Harrier	**7**	3	5
Sharp-shinned Hawk	1	0	0.5
Cooper's Hawk	0	1	0.50
Red-shouldered Hawk	0	0	0.00
Red-tailed Hawk	**3**	1	2
American Kestrel	0	2	1
GROUSE to CRANES			
Wild Turkey	13	36	
Virginia Rail	1		
Sandhill Crane	63		
JAEGERS to ALCIDS			
Ring-billed Gull	√	√	
Herring Gull	√	√	
Great Black-backed Gull	√	√	
Short-eared Owl	3		
Belted Kingfisher	1	2	

Peak counts shown in **Bold Face**

***Seen on date other than official Survey date or by other observers**

For More Information / Literature Referenced: *"What a long, strange trip it's been."*

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www.cumauriceriver.org/raptor-and-waterfowl-surveysstudies/

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