



<http://www.friendsofbombayhook.org>

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The President's Corner
By: Frank Rawling

Friends' Impact

Have you ever stopped to consider "What is the impact of the Friends?" In part it is explained in our By-laws. Here it states that "The primary purposes of Friends shall be to support and to enhance the educational and recreational programs of BHNWR by providing volunteer services and financial support and to serve as a link between the public and BHNWR." Providing volunteer services and financial support are quite visible. I consider that serving as a link to the public is, in essence, the third leg of a three legged stool.

The membership of the Friends is a diverse group. But we have one thing in common, we are all convinced of the importance of the Refuge. And it is that regard where we can have a major impact on the future of the Refuge. We are ambassadors for the Refuge. Those of us who staff the Visitor Center and answer questions from the public know this quite well. But this is something that all members can take part in. The greater the number of our fellow countrymen who know about the Refuge and the Refuge System the better off the System will be and the greater the opportunity for adding to the System for the benefit of wildlife and future generations. So, talk up the Refuge, invite your neighbors to join you on a visit to the Refuge (the Spring Festival would be a good time). Help spread the word!

President Theodore Roosevelt put it this way: "Wild beasts and birds are by right not the property merely of the people who are alive today, but the property of unknown generations, whose belongings we have no right to squander."

Help the Friends "fulfill the promise." Have an impact!

The Refuge Store
By: Verna Price

Spring!!! Let your thoughts this spring turn to t-shirts. We have the following shirts in bright colors to help spring fever:

- ◆ Ivory-Billed Woodpecker
- ◆ Shorebirds
- ◆ Garden Birds
- ◆ Back-country Birds
- ◆ Going to the Woods
- ◆ One Generation

We believe you will be pleased with these shirts.

We also have Scott Weidensaul's latest book "Return to Wild America: A Yearlong Search for the Continent's Natural Soul".

We look forward to seeing you soon!!!

Attention FOBH Members!!!

Our Annual Meeting will be held on June 17, 2006 at 10:00 am.

We hope that you will be able to join us.

Bird Notes

By: *Frank Rawling*

The Winter Season

December began with fairly normal temperatures and then turned cold for the mid-month before becoming warmer after Christmas. The month however came in at -2.7°F below normal with essentially normal precipitation. Early in the month there was a 4-inch snowfall. January was a very warm month, averaging some 8 degrees above normal with precipitation 0.7 inches above normal. February was normal in temperature and about 0.4 inches below average in precipitation. However, there was a heavy snowfall on the 12th with 14 inches in the Wilmington area and somewhat less at the Refuge.

What were people seeing for birds? Let's get to it.....

December

The month began with sightings of **Gadwalls** at Finis Pool and a **Fox Sparrow** along the Boardwalk Trail. Also on the 1st a **Goshawk** was seen from the south end of Bear Swamp dike. A small flock of **Cedar Waxwings** were in Bear Swamp woods on the 3rd. The same day **Meadowlarks** were seen along the entrance road to Bear Swamp and **Buffleheads** on Shearness Pool. A flock of 20 **Tundra Swans** were seen on Raymond Pool on the 3rd. On the 4th an **Eurasian Widgeon** was noticed at Finis Pool mixed in with the **Gadwalls**. Also on the 4th a **White-crowned Sparrow** was seen in the field opposite the Visitor Center. The same observer saw **Cedar Waxwings**, a **Brown Creeper** and 2 **Purple Finches** at Bear Swamp. On the 7th a **Cackling Goose** was picked up in a flock of **Canada Geese** in the field next to the Visitor Center. A **Rough-legged Hawk** was seen at Shearness as well as 2 **Peregrine Falcons** over the mudflats opposite Shearness. The same observer spotted a **Red-breasted Nuthatch** along the Parson Point Trail. **Bald Eagles** continue to be seen regularly at the Refuge – both adults and immatures. A nice observation on the 13th was a **Merlin** at Bear Swamp. **Common Mergansers** were seen on the 17th between Shearness and Bear Swamp. The annual Audubon Christmas Count was held on the

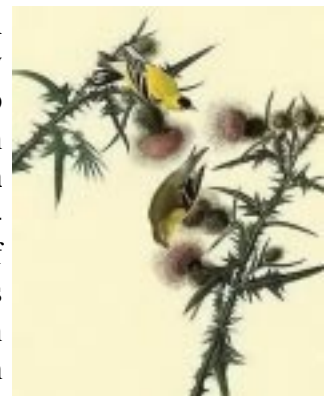


Cedar Waxwings

18th. This was the 65th annual count that was held at Bombay Hook. Highlights were a **Lincoln's Sparrow**, immature **White-crowned Sparrow**, **Gray Catbird**, no less than 3 **Virginia Rails**, 2 **Palm Warblers**, a **Ross's Goose**, a **Cackling Goose**, and a **Long-tailed Duck**. On the 20th a **Canvasback** was seen at Bear Swamp. An **American Bittern** was observed close to the road along Shearness Dike on the 23rd. **Horned Larks** were noticed along the road near the Visitor Center. The **Gray Catbird** was still around on the 27th and on the 28th a female **Yellow-rumped Warbler** was observed at Bear Swamp. The month closed out with the sighting of an **American Bittern** along Shearness Dike and a **Belted Kingfisher** at the Boardwalk Trail.

January

The year began with a sighting of a large flock of **Common Mergansers** on the bayside of Shearness Pool. The **American Bittern** was still along Shearness Dike. A flock of a dozen **Eastern Bluebirds** were seen at the intersection of Finis Pool Road and Allee Road on the 2nd. **Goldfinches** were seen at the Visitor Center on the 2nd. An immature **Northern Goshawk** was observed at the north end of Bear Swamp on the 5th as well as a **Peregrine Falcon** at the north end of Shearness. **Eastern Meadowlarks** were seen near the Visitor Center on the 8th. Also on the 8th a **Gadwall** was seen at Shearness and a **Lesser Scaup** at Finis. A **Sharp-shinned Hawk** flew by the entrance to Bear Swamp Trail on that day. A nice find on the 8th was a **Hermit Thrush** in Finis Woods. The same observer picked out a pair of **Hooded Mergansers** on Finis Pool. The first **Winter Wren** on the list occurred on the 12th in the Finis Pool area. That day 6 **American Coots** were seen in Shearness Pool. The ever-observant Refuge Biologist spotted an immature **Red-shouldered Hawk** at the west end of Raymond Pool. On the 15th a **Snow Bunting** was seen along Whitehall Neck Road (the entrance road) near Route 9. On the 16th a flock of **Buffleheads** was seen in the salt marsh opposite Shearness. Also on that day a **White-breasted Nuthatch** was seen behind the Visitor Center. On the 20th a birder spotted a hybrid **Mallard/American Black Duck** at Shearness as well as an **American Widgeon**. On the 21st a large raft of **Common Mergan-**



Goldfinches

ers was on Bear Swamp and about 11 **Hooded Mergansers** were at Big Woods Pond along the Allee House Road. Birders were out and about on the 21st and spotted a **Ring-necked Duck** on Shearneck as well as **Ruddy Ducks, Common Mergansers** and **Buffleheads**. Shearneck that day also held a large flock of **Dunlin** and fair numbers of **Northern Shovelers** and **American Coots**. To keep things alert 3 **Bald Eagles** were in the area along with several **Northern Harriers**. A flock of **Savannah Sparrows** was observed near the Refuge entrance on the 27th. A **Golden Eagle** was seen in the Bear Swamp area on the 29th. The month closed out on the 29th with the spotting of a pair of **Bald Eagles** on the nest in the Allee House area.

February

On Feb 1st 4 **Short-eared Owls** were seen in the Boardwalk Trail area and Duck Creek. This sighting was followed by that of a **Merlin**, also on the Boardwalk Trail on the 2nd. The **Merlin** was seen again on the 5th, this time along Shearneck Dike. A **Red-shouldered Hawk** was also noticed in that area. Raymond Pool held an **American Avocet** on the 5th. A nice find was a **Rusty Blackbird** with a group of **Boat-tailed Grackles** in the Shearneck area on the 6th. A census by the Refuge Biologist on the 9th showed the following waterfowl in residence: **American Coot, Canada Goose, Snow Goose, Black Duck, Mallard, Green-winged Teal, Northern Shoveler, Northern Pintail, Bufflehead, Ruddy Duck, Common and Hooded Mergansers**. On the 14th a **Lapland Longspur** and **American Pipits** were spotted in a field near the Visitor Center. The same area housed a flock of **Horned Larks** on the 16th. The same day a dark-morph **Rough-legged Hawk** was sighted on the Refuge. **Three Ring-necked Pheasants** were in the area of the Raymond Observation tower on the 18th. Two **Brown Creepers** were seen near Shearneck on the 19th as well as **Eastern Meadowlarks** at the entrance. Owls were observed on the 20th, an **Eastern Screech Owl** in a Wood Duck box near Bear Swamp and a **Short-eared Owl** along Shearneck Dike. An **American Woodcock** was seen near the Headquarters that evening. The month closed with the sighting of a flock of **American Pipits** along Raymond Pool Road.



Black Ducks

That's it for this time. Next time is spring migration!

Cheers and Good Birding!

The Refuge Corner

Bald Eagle Update

By: Ray Brown, Refuge Biologist

We had high hopes that Bombay Hook's eagle pair was finally going to nest successfully last year after an eight year long series of failed nesting attempts. The last year that eagles nested successfully on the refuge was 1997, when one eaglet was produced.

In 2005, eagles again appeared to be setting up residence at the previous year's nest deep in the woods on the west side of Shearneck Pool. The birds were seen at the nest a number of times early in the year and were exhibiting a moderate degree of territoriality and fidelity to the nest site. We were hopeful that the pair had produced one or more eggs but we were not able to confirm it. When the time came for the eggs, if present, to have hatched, the eagles apparently abandoned the nest and have not been seen there since.

In the winter of 2005-6, activity at the nest seemed to be increasing again, based on the presence of fresh whitewash (excrement) found under the nest tree and adjacent trees, and the presence of prey remains in the area. However, no eagles were seen at the nest site so it appeared that birds were again only making a half-hearted attempt at nesting.

Then on the weekend of January 28-29, two refuge visitors separately reported seeing a large nest with an adult bald eagle near the Allee House. Other visitors may have seen the nest earlier but did not report it. Refuge staff located the nest on January 30 and have observed one or two adult bald eagles regularly associated with the nest since that time.

This time the eagles seem to be more intent on nesting than in recent years. In early February, an eagle was observed sitting in the nest in an incubation posture, spawning speculation that the female had laid at least one egg in the nest. From then until mid-March, the eagle pair took turns sitting in the nest, presumably incubating one or more eggs. The suspected "due date" for the first of these eggs, if indeed there were any present, was around the Ides of March.

On March 17, an adult bald eagle was observed standing in the nest, intently staring at something in the nest. Soon the other member of the pair arrived, and both eagles stood in the nest staring at some apparently new object in the nest that intrigued them. Could it be that an egg was hatching or that an eaglet had recently hatched out?

On March 22, an adult eagle was observed delivering two different prey items to the nest 40 minutes apart, while its mate remained in the nest. One of the prey items was a fish, but the other one could not be identified because of the distance of the observer from the nest (over 2,300 feet!). The eagle in the nest proceeded to tear at the prey items, turning its head to the side every now and then as if feeding a small eaglet down in the nest. Could it be that the refuge's eagle pair has successfully produced young after so many years of failure?

Even if eaglets are in the nest, they're not out of the woods yet, so to speak. Eagles in Delaware have experienced a slower recovery than eagles in other parts of the country, leading to speculation that persistent pesticides and other contaminants produced and used in the Delaware River watershed in the last century may still be affecting the reproductive success of these majestic birds. Eaglets also fall prey to various avian and mammalian predators, such as raccoons, hawks, owls, and crows, or may starve because of an insufficient prey base or inattentive parents.

Nest failure by eagles also can often be attributed to human disturbance near the nest. Individual eagle pairs have their own tolerance limits when it comes to human or equipment presence near the nest. For example, some eagles have nested successfully for years near major highways or developments, whereas other eagles have abandoned their nests when a construction or timber harvest project has occurred near the nest. Bombay Hook's eagle pair has demonstrated to be intolerant of human presence near the nest, often flushing when humans have come within sight of the nest tree, even long distances away. The eagles' intolerance for human presence near their nest is the reason that Parson Point Trail is typically closed during the nesting season—to keep visitors away from the historic nest location on Shearness Pool. The refuge will be undertaking additional management modifications (including area closures) and monitoring activities to ensure that the eagle pair has the greatest probability of nest success this year.

The eagle nest can be viewed best from two locations along Dutch Neck Road. The first viewing location is directly in

front of the Allee House. The nest is about 2,100 feet south-southeast of this location. The second viewing location is about 0.25 mile east of the yellow gate by the Allee House. The nest is about 2,350 feet south-south west of that location. Posts have been erected at this location to aid in sighting in on the nest. The eagles have not yet shown signs of being disturbed by single observers or small groups at either location. The nest can be seen with the naked eye from either location, but a spotting scope is needed to observe eagle activities at the nest. Nest observations are best made early in the morning before the sun heats the air and causes too much distortion.



Bald Eagle

The area around the eagle nest has been closed to visitors to prevent disturbance to the eagles and to afford the eagles with the greatest opportunity to successfully raise young this year. We also ask that persons and groups viewing the nest remain respectful of the eagles and try to minimize their visual and audible disturbance in the area. Remember that even though the nest is over one-third mile from either viewing location, the eagles can still see people and vehicles at either location, and can hear loud noises from those locations if the wind is right.

To help keep track of the status of the nest, we will be installing an eagle observation record box at one of the viewing locations mentioned above. You can help us monitor the progress of the nest through the nesting season by writing down your observations on the datasheets on the clipboard inside the box. We expect that eaglets will be confined to the nest until at least the early May, at which point they should start to "branch out" in the nest tree in preparation for fledging. The young eagles are expected to leave the nest tree and take their first flight some time in the first two weeks of June. The immature and adult birds should remain in the general area around the nest for about two months after fledging, as the parents still feed the young during that time. After that, the young will probably disperse from the area.

References:

Buehler, D. A. 2000. Bald Eagle (*Haliaeetus leucocephalus*). In *The Birds of North America*, No. 506 (A. Poole and F. Gill, eds.). *The Birds of North America, Inc., Philadelphia, PA.*

Cline, K. 1985. Bald Eagles in the Chesapeake: A Management Guide for Landowners. National Wildlife Federation, Washington, DC. 16 pp.

***Bill Buchanan's Photography Exhibit
 "Delaware Estuary: Avian Superhighway"
 On Display in Bombay Hook's Visitor Center
 April 8, 2006 – May 7, 2006
 8:00 am – 4:00 pm daily***

Bill Buchanan, Public Affairs Specialist, at the John Heinz National Wildlife Refuge (JHNWR) recently created a photo exhibit titled "Delaware Estuary: Avian Superhighway". Prior to joining the staff at JHNWR in 2000 he worked for over 15 years as a freelance writer and photographer. Bill also volunteered at JHNWR leading guided photo walks for about 15 years and started the FOHR



Bill Buchanan

Photo Group. He was a founding member of the Friends of Heinz Refuge organization.

Every spring since 1986, Buchanan has been drawn to the Delaware Bay and specifically a few key beaches. These beach areas are where, for millennia, the full moon spring tides signal the spawning of the largest population of horseshoe crabs on the planet. Coming ashore on the high tide the females lay several thousand eggs each, with a male in tow to fertilize the new life. They depart on the outgoing tides.

Many of the eggs will lay buried several inches beneath the sandy surface and in a matter of a few weeks hatch into perfect tiny translucent replicas of their parents. But many, many more will never reach that point as they are exposed by the ebb and flow of the tides. And these will serve as a huge protein reserve for the perfectly timed northbound migration of tens of thousands of shorebirds who have exhausted all their reserves in trips that may have taken them thousands of miles since leaving their wintering grounds in South America.

It is this great massing of the ancient horseshoe crab and shorebirds that have beckoned Bill Buchanan for all these years. The compilation of Bill's years of field work has been documented in the photo exhibit. With migration maps, aerial composites, and other interpretive panels it is to draw attention to this remarkable natural phenomenon and to also point out that both the numbers of crabs and shorebirds, especially the redknot, have dropped dramatically in the past 10 to 20 years.

The exhibit shows the wonderful diversity of bird life that take advantage of the feast left upon these beaches on the Delaware Bayshore in both the states of New Jersey and Delaware. As for his affinity for what many consider to be so many "little brown and gray birds" Buchanan says, "For me, they are like angels made of fine tweed. Wonderfully muted tones and hues occasionally highlighted with a splash of vibrant color just to keep you guessing."

Come view the shorebird and horseshoe phenomenon through Bill's eyes.

***May 20, 2006
 Migratory Bird Festival
 8:00 am – 4:00 pm
 The Boreal Forest: Bird Nursery of the North***

We have a full day of demonstrations and presentations for everyone. Come and Enjoy!!!

- ◆ ***Boat Trips***
- ◆ ***Trips to the Bay to see Horseshoe Crabs***
- ◆ ***Bill Stott gives a presentation on the Warblers that Breed in the Boreal Forest***
- ◆ ***Visit the Purple Martin colony on the refuge***
- ◆ ***Games and crafts for the children***
- ◆ ***Carol Nancy Willis reads her newly-published children's book " Red Knot: A Shorebird's Incredible Journey"***
- ◆ ***Wildlife Artists , Photographers and Woodcarvers***
- ◆ ***Conservation Groups***
- ◆ ***Live Horseshoe Crabs***
- ◆ ***Refuge and Birding Tours***
- ◆ ***Salamander Search***
- ◆ ***Scales & Tales – Live Birds***



Photo: © Wayne Sawchuck

**The 2005 Delaware Bay Horseshoe Crab
Spawning Survey Results**
By: *Benjie Lynn Swan*
William Hall
Carl N. Shuster, Jr.

Abstract

This year (2005) marks the fifteenth year of the annual horseshoe crab survey and of the fifteen, the last six (1999-2005) employ the currently accepted survey methodology. The hallmark of the program is its use of well over 100 volunteers sampling within the Delaware Bay on twelve moon phase correlated dates in May and June. In 2005, 24 beaches (13 in Delaware and 11 in New Jersey) were sampled. Hazardous weather conditions (lightning and/or beach accessibility due to tidal flooding) limited sampling to 82% of all beaches for all nights. Counts were severely hindered on May 7, 25 and June 6 due to high winds and flooding of access roads leading to beaches. Such conditions also negatively impact spawning as spawning crabs avoid wave impact on beaches thus temporarily halting most, if not all, spawning for the period. Due to early and on going poor weather and cold water conditions in May, the authors believe peak spawning was delayed until the June 6th new moon cycle period.

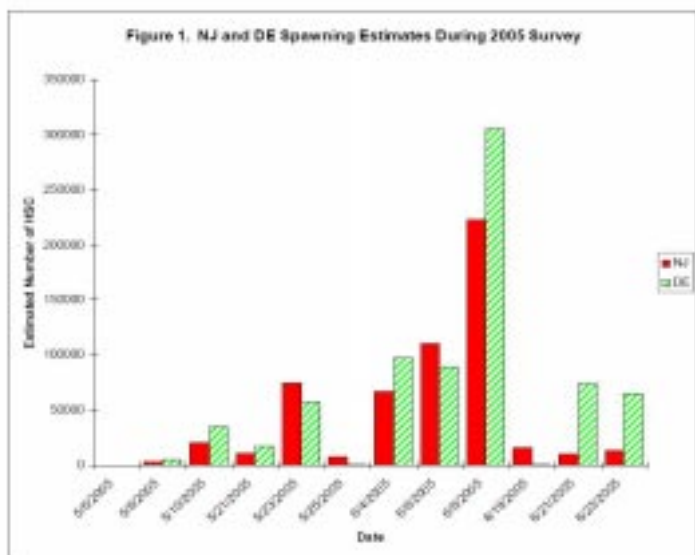


Figure 1

The highest single peak day for the Bay, the June 8th count, was 527,520. This is the first time since inception that both sides of the bay peaked on the same day. While Delaware's single peak day represents the highest since 1999, the overall seasonal estimate was the lowest since 1999. For New Jersey, not only was the peak the same day but also the

total seasonal population reached a new high since the 1999 inception of the new methodology. It should be noted the male to female ratio for the 2005 survey of 3.89 was greatest since the new methodology was employed. However, the sex ratios did vary drastically from beach to beach. Total season count for 2005 was 1,307,429.

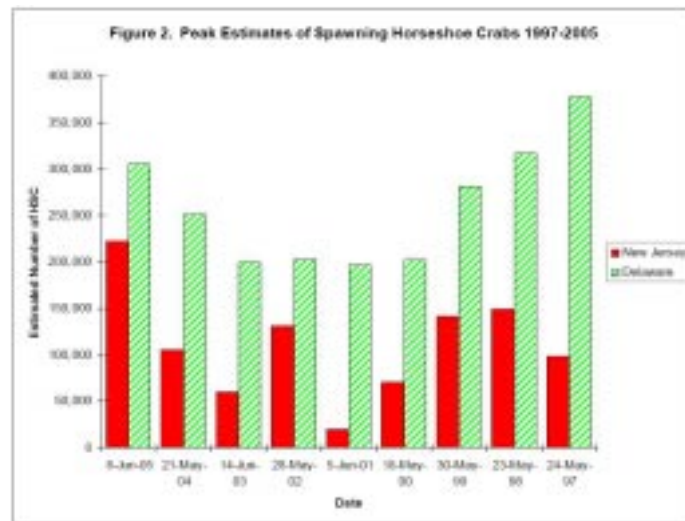


Figure 2

Discussion

Overall spawning numbers during the entire season were consistent with prior years. The Delaware side of the Bay for many years has contained greater numbers of horseshoe crabs during the peak and seasonal activity. Interestingly this year, Delaware's overall spawning numbers were decreased to the same extent New Jersey individuals were increased. The inclement weather may have shifted the spatial distribution of horseshoe crabs to the New Jersey shores of Delaware Bay.

For complete report on the 2005 Horseshoe Crab Survey Results access:

<http://www.ocean.udel.edu/mas/bhall/hsscensus/index.html#2005survey>

To find out how to participate in the 2006 horseshoe crab surveys check the website:

<http://www.ocean.udel.edu/mas/bhall/hsscensus>.

Horseshoe crab survey training will be offered at Bombay Hook on **April 29, 2006 from 10:00am – 12:30pm**. Call to register at 302-653-6872.



Weidensaul photo: © Amiran White

Scott Weidensaul Presentation
May 13, 2006
2:00pm – 4:00pm
Return to Wild America: A Yearlong Search for the
Continent's Natural Soul

In 1955, naturalists Roger Tory Peterson and James Fisher published their bestselling book “*Wild America*”, chronicling a now-legendary 30,000-mile trip across North America. Fifty years later, author Scott Weidensaul has retraced their epic journey, to see what we’ve gained and lost, and to catch a glimpse of what the future holds for wildlife and wild lands. From the great seabird cliffs of Newfoundland to the cypress swamps of Florida, from the cloud forests of the Sierra Madre in Mexico to lonely islands far out in the Bering Sea, Weidensaul searches out the wild heart of the continent - and finds it strong.

Scott Weidensaul is the author of more than two dozen books on natural history, including the Pulitzer Prize-nominated “*Living on the Wind*”, about migratory birds, and “*The Ghost With Trembling Wings*”, about the search for animals that may or may not be extinct. Weidensaul writes for such publications as *Smithsonian*, *Audubon*, *Nature Conservancy* and *International Wildlife*; he lives in the mountains of eastern Pennsylvania, where he studies the migration of hawks, owls and hummingbirds.

Conserving Our Wildlife and Habitats
By Janet Manchester

Do you know how many species of wildlife have been documented in our little state of Delaware? Do you have any idea how many different habitats have been identified in the state?

Delaware’s Division of Fish and Wildlife, together with key conservation partners (including our refuge staff) and the public, has developed the Delaware Wildlife Action Plan – a document that not only answers these questions but represents a first attempt at a comprehensive strategy for conserving our full array of native wildlife and habitats. The goal is to keep species common, and to prevent species from becoming endangered.

The Plan currently identifies 457 “species of greatest conservation need” in 50 different types of habitat. It identifies nearly 90 conservation issues affecting species or habitats of concern. The Plan will be continuously up-

dated as new information becomes available about species, habitats, issues, or actions.

The Plan can be viewed on the website of the Department of Natural Resources and Environmental Control: www.dnrec.state.de.us/NHP/information/CWCS2.asp.

By the way, the number of documented species of wildlife in Delaware is more than 1000. The number of different habitats exceeds 125 and ranges from coastal marine waters and brackish marshes to upland forests and meadows.



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