

# Friends of BOMBAY Hook

<http://www.friendsofbombayhook.org>

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*The President's Corner*  
By: *Frank L. Rawling, Jr.*

## **Beyond the Boundaries**

The National Wildlife Refuge System faces many problems these days and among these is stress on the Refuge emanating from beyond the refuge boundaries. This can take many forms. Some that come to mind are development pressures, invasive species, and pollution. Bombay Hook is faced with all of these. What can be done to combat these external stresses? How can the Friends get involved? Those questions will be the subject of a 3-day workshop to be held at the Fish and Wildlife Service National Conservation Training Center in Shepherdstown, WV in early November. This workshop is sponsored by the National Wildlife Refuge Association in cooperation with the Conservation Fund. NWRA has invited 30 Friends groups to attend the conference. Each Friends group invited to the conference is requested to send to members of the group to take part. All expenses will be paid by NWRA and the Conservation Fund. The Friends of Bombay Hook have been invited to participate in this conference and Janet Manchester and Frank Smith have agreed to represent us. Janet is a long-time board member and is just beginning her 3rd term as vice-president. Her background has been in environmental protection with DNREC. Frank Smith was recently elected to the board and retired two years ago as the Refuge Biologist. His knowledge of the Refuge and the threats it faces are vast.

The workshop will discuss possible solutions to these threats, real-life cases, and real opportunities to protect refuges in creative ways. The discussions will focus on 6 "threatened" and 6 "rescued" refuges. NWRA has recently published a report on this subject and it can be read or downloaded from their website:

<http://www.refugenet.org/new-pdf-files/BeyondtheBoundaries.pdf>

We will keep you informed on the results of the workshop.

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*The Refuge Store*  
By: *Verna Price*

It's that time again!!! Fall is upon us and our busy season is beginning.

We invite all of you to visit us and see some of our new items. We have the following:

- Magnetic Note Pads
- Bird Photos Mouse Pads
- Screen Savers
- Puzzle Letters
- Chickadee T's and Sweat Shirts
- Blue Heron T's and Sweat Shirts
- Marsh Scene T's and Sweat Shirts
- Chickadee Tote Bags
- New Bird Mugs
- Bird Playing Cards

We will be looking for you!!

Come and do all your shopping with us!!!

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*Bird Notes*

By: *Frank L. Rawling, Jr.*

**The Summer Season**

As I write this it is the waning days of summer. And it has been, overall, a drier than normal and warmer than normal season. June precipitation was 1.3 inches less than normal in the Wilmington area and 1.4 degrees warmer than normal with 2 days above 90 degrees. July was just above normal in precipitation and rainfall but had 90 degrees or better on 7 days. August, however, was deficient by 2.2 inches in precipitation but was 3 degrees above normal with 9 days above 90 degrees. Nevertheless, birders were still on the Refuge. What did they see? Let's have a look.

**June**

The month opened with the sighting of **Black-necked Stilts** on both Raymond and Shearness Pools on the 1st. This was followed by a dozen **Black Skimmers** on the 2nd. On the 5th a **White-faced Ibis** was seen by the tower at Raymond Pool. 25 **American Avocets** were in residence at Raymond Pool on the 10th. The 11th saw sightings of **Yellow-crowned Night Herons** at Bear Swamp, the aforementioned **Black Skimmers** and **White-faced Ibis** at Raymond as well as **Brown Thrasher** and **Blue Grosbeak** at Bear Swamp. A **Hudsonian Godwit** was observed at Raymond on the 12th. A



*Kentucky Warblers*

dozen **Caspian Terns** and an immature **Bald Eagle** were seen at Shearness on the 14th. Also on the 14th a **Yellow Warbler** and an **Orchard Oriole** were noticed at Raymond Pool and 3 **Greater Yellowlegs** at Shearness. A **Bobwhite** was seen near the Allee House on the 18th. This was followed by an **Indigo Bunting** on the 19th near the exit road from Bear Swamp. A **Kentucky Warbler** was seen at Bear Swamp on the 20th. They are known to nest on the Refuge but are not often reported. 2 **Least Terns** were seen by the Refuge Biologist near Kelly's Island in the salt marsh on the 22nd. The **American Avocet** flock had risen to 30 at Finis Pool on the 23rd. The same day an **Eastern Phoebe** was seen along the Boardwalk Trail as well as 9 **Stilt Sandpipers** at Raymond Pool.

The same birder saw a **Sedge Wren** opposite the north-east corner of Bear Swamp. On the 24th a **Cliff Swallow** was seen at Shearness Pool. A **Barred Owl** was along Finis Pool Road on the 25th.

**July**

A nice immature **Dickcissel** started off the month of July. On the 2nd a **White-rumped Sandpiper** and **Western Sandpipers** were seen at Raymond. A wonderful sighting on the 3rd was no less than 2 **Yellow-billed Cuckoos** at Finis Pool along with a **Scarlet Tanager**. The same day a **Hudsonian Godwit** was at Raymond and a **Northern Harrier** at Shearness, also a small flock of 5 **Black-necked Stilts** at Shearness. A **Wilson's Phalarope** put in an appearance at Raymond on the 4th. The same day a **Spotted Sandpiper** was at Raymond and 31 **Black-crowned Night Herons** at Bear Swamp. The 12th saw a **Black Tern** at Shearness and 2 **Black-bellied Plovers** at Raymond. 4 **Blue Grosbeaks** were observed along Bear Swamp Road on the 13th. A **White-faced Ibis** took up residence at Shearness on the 15th and there were 4 **Wilson's Phalaropes** at Raymond that day. On the 16th a DOS trip group picked out a **Pectoral Sandpiper** at Shearness and a **White-rumped Sandpiper** at Raymond. The same day a **Yellow-crowned Night Heron** was located at Bear Swamp. South-bound migration was well under way on the 17th when large numbers of **Western Sandpipers**, **Semipalmated Sandpipers** and **Short-billed Dowitchers** were inhabiting the impoundments. An immature **Peregrine Falcon** was seen on the 23rd near the road from Raymond to Shearness. Along the many residents on the Refuge on the 24th were **Common Terns** near the Boardwalk Trail and many **Dunlins** on Shearness. **Northern Rough-winged Swallows** were observed on the 25th over Shearness Pool. A nice find was an adult **Franklin's Gull** at Raymond Pool on the 30th. The month closed out with a **Spotted Sandpiper** at Shearness and a couple of **Bobolinks** in the vicinity of the Visitor Center on the 31st.



*Common Tern*

**August**

The initial sightings for August were on the 2nd and consisted of a single **Stilt Sandpiper** and **Western Sandpiper**

## Those Other Critters At Bombay Hook

### Part I

By: Robert W. Mayer

There is no question that a majority of the visitors to Bombay Hook come to look at birds, and the reasons are obvious. Birds are visible, they are around in the daytime, and they change with the seasons – ducks and geese in the fall, shore-birds in the spring. They're pretty to look at too, and there are more of them than most anything else (except mosquitoes and greenheads).

Although birds are only one of the several classes of animals that live on the refuge, but if we listed mammals, amphibians and reptiles as we do bird species, we would find notations such as “*always present, but seldom seen,*” or “*usually present, but never seen!*”

Even some of our most common mammals, such as **white-tailed deer** and **raccoons** are visible with any regularity only at dawn and dusk. The presence of **muskrats** is identified mostly by their reed houses in the marsh, and evidence of **beavers** is indicated by the chewed, cone-shaped stumps along the banks of freshwater pools and ponds. **Red foxes** are viewed most frequently in the spring when they are seen hunting **meadow voles** to feed their kits. Even



Painted Turtles

**eastern cottontails, gray squirrels, and woodchucks** would have a notation, “*always present but not always seen.*” Of the reptiles, the late spring may bring female **snapping turtles** to the edges of fields where they lay their eggs, a **common water snake** might be found warming itself along Boardwalk Trail, and as the weather warms, **painted turtles** might be observed basking on logs and mud banks. Frogs are heard rather than seen. The calling of **northern spring peepers** and **New Jersey chorus frogs** in early March gives us one of the first signs of spring,

at Raymond Pool, **Cattle Egrets** at Shearneck and a **Pectoral Sandpiper** at Bear Swamp. 3 **Bald Eagles** were sighted at Shearneck on the 4th. The **Hudsonian Godwit** was still at the Refuge on the 7th and the number of **Stilt Sandpipers** on Shearneck had risen to 30-40. 3 **Wilson's Phalaropes** were still around on the 10th. Also in attendance were a **Gull-billed Tern** and 4 **Caspian Terns** at Shearneck. A **Black Tern** was seen at Shearneck on the 14th. Nice on the 15th was a **Clapper Rail** with 4 young on the mudflats at Raymond Pool. The **American Avocet** flock at Shearneck had risen to 66 on the 16th and the **Peregrine Falcon** was still around. Ducks put in an appearance on the 17th with both



Bald Eagles

**Green-winged** and **Blue-winged Teal** evident. A **Tri-colored Heron** was found at Bear Swamp on the 18th and a half-dozen **Black-necked Stilts** in the same location. The long-staying **Hudsonian Godwit** was still being seen at Raymond on the 18th as well as the **Gull-billed Tern**. Both **Stilt** and **White-rumped Sandpipers** were seen at Raymond that day. On the 19th there was a flock of **Bobolinks** near the Visitor Center. A **Marbled Godwit** was seen by a group from the Baltimore Bird Club at Shearneck Pool on the 20th. It was also seen again at Shearneck on the 21st along with a **Hudsonian Godwit** at Raymond. A **Common Snipe** was found of the same day at Raymond. There were 2 **Marbled Godwits** at Shearneck on the 24th. A **Green Heron** was spotted on the 26th at Shearneck. Also, at Bear Swamp there were 3 **Northern Harriers**. 2 **Buff-breasted Sandpipers** were seen at the north end of Shearneck on the 26th. These had increased to 4 on the 27th as noted by the Sussex Bird Club. They also saw **Baird's Sandpiper** in the same location that day as well as a large number of **White-rumped Sandpipers** at Raymond Pool. The same group also picked located a juvenile **Sora** at the southeast corner of Shearneck Pool. The month ended with a **Pine Siskin** observed on the niger feeder at the Visitor Center.

That's it for this time.

**CHEERS AND GOOD BIRDING!!**

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and the deep calls of **American bullfrogs** at Finis Pool make their presence known. But what about all the others?

The fact is that most of the mammals are nocturnal, and many of the reptiles and amphibians are found in places on the refuge not accessible to the public, so this is the first of two articles that will consider some of the lesser known mammals, reptiles, and amphibians found on the refuge.

### The Mammals

Thirty-five mammal species have been confirmed as living on the refuge, although experts agree there are probably others that have not as yet been verified. Rodents make up the largest order with thirteen species, followed by carnivores with seven species, bats with six species, insectivores with five species, and there is one member of each of the following four orders: pouched mammals; sea lions and seals; pikas, hares, and rabbits; and even-toed hoofed mammals. So let's meet a few of the lesser known or more interesting species.



*Beaver*

Two small rodents favor the wetlands, the **marsh rice rat** and the **meadow vole**. The marsh rice rat is a native species (the other rat species found on the refuge, the familiar **Norway rat**, is an introduced species). This small rat looks more like a large mouse, with a head and body length of about five inches and a tail of the same size, lives in the tidal marsh and is an excellent swimmer and diver. The only other rodents to match it in the water are the **muskrat** and the **beaver**. The rice rat is mostly nocturnal. It builds its nests in the marsh grasses above the high water mark and feeds on some marsh vegetation, but it favors insects, crabs (particularly the fiddler crab), small fish, and bird eggs. In turn it is prey for northern harriers, short-eared owls, and **red foxes** that patrol the marsh day and night in search of food.

A rodent in the “*abundant but never seen*” category is

the **southern flying squirrel**. This tree squirrel is totally nocturnal; it lives in deciduous forests, spending daylight hours in old woodpecker holes or other cavities; and it emerges after dark to glide from tree to tree on folds of skin on each side of its body that connect between its front and back legs. Unlike bats, the only mammals that are able to fly, flying squirrels can only glide downward, but have been known to cover distances up to 150 feet. Flying squirrels are omnivorous, feeding on seeds, nuts, berries, fungi, insects, bird eggs, meat, and carrion. Small, they are only about half the size of our familiar **eastern gray squirrel**.

An occasional visitor to the refuge is the **American mink**, a semi-aquatic carnivore and member of the weasel family that is found along freshwater streams and sometimes in the guts of the tidal marsh. Minks are nocturnal, solitary, and aggressive carnivores that feed on fish, frogs, and small mammals. Large males have been known to include prey as large as small **muskrats** in their diet. Of course these are the animals that have been highly prized for their fur.

Perhaps the rarest carnivore on the refuge is the **gray fox**. Unlike his cousin, the **red fox**, the gray fox is almost totally nocturnal and is found only in limited habits – mixed hard-



*Gray Fox*

wood forests, old fields, and heavily wooded swamps – that make up a relatively small portion of the refuge. This species is very secretive and generally avoids cultivated fields and inhabited areas. The gray fox readily climbs trees to avoid danger, and is the only member of the dog family to do so. This fox is omnivorous, eating small mammals, birds, eggs, insects, fruits, and grasses. The gray fox and the slightly larger red fox are often confused. The red fox has many color variations. While normally red, there also is a black phase and intermediates between the two, the latter resembling the gray fox. The best distinguishing feature is the black tip of the gray fox's tail (with a black stripe

running the length of the tail), while the tip of the red fox's tail is white.

The two smallest bats found at Bombay Hook are the **little brown myotis** (also called the **little brown bat**) and the **eastern pipistrelle**. Like all bats, both are insectivores and locate prey by echolocation; both appear at dusk; both hibernate during the winter in large colonies; and both, but particularly the pipistrelle, may migrate long distances to hibernation sites.

The **hoary bat** is perhaps our most interesting. It is the refuge's largest bat, it flies late at night so is seldom seen, and it is solitary, roosting alone. Like our other bats, at least some individuals migrate southward in winter. A bat of the woodlands, its flight is direct and rapid. It feeds on various insects in flight, but the hoary seems to prefer moths. Its heavy brown and yellow fur is tipped in white, hence the name "hoary" and it is distinguished by its yellow face.

Although all of our bats and some of our rodents eat insects, five species of the order *Insectivora* – the insect eaters – are found on the refuge. These are the shrews and moles. The shrews live above ground and the moles burrow beneath the surface, and both include insects and worms in their diet.

Certainly the **star-nosed mole** is most distinctive member of the order *Insectivora*. Unlike the other mole found at Bombay Hook, the **eastern mole**, the star-nosed prefers wet habitats – stream and pond banks, marshes, wet meadows, and poorly drained forests. The star-nosed mole is unmistakable because of its hairless nose surrounded by a "star" of twenty-two pink, fleshy tentacles. The star-nosed also has a more varied diet than does the eastern mole. The diet of both species consists of worms, and the eastern mole eats mostly earthworms. The star-nosed, on the other hand, feeds on mostly aquatic worms, but adds to its diet the aquatic larvae of caddisflies, dragonflies, midges, horse flies, and predaceous diving beetles.

The **northern short-tailed shrew** is the most aggressive of our three shrew species and is a voracious feeder, eating up to three times its body weight each day. Its saliva contains a toxic poison that enables it to subdue its prey, and therefore the short-tailed shrew has a more varied diet than the other two. Invertebrates and small vertebrates are found in its diet, including some much larger than itself

- salamanders, frogs, snakes, birds, and even other shrews. Like the other shrews, it is active day and night, year around.



*Harbor Seal*

Our final mammal of note, the **harbor seal**, is an infrequent visitor to the mouths of the Leipsic and Mahon Rivers. Although infrequently seen here, harbor seals are common on the Atlantic coast, often entering bays and river mouths.

Look next issue for **Part II, Those Other Critters at Bombay Hook, Reptiles and Amphibians.**

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*The National Wildlife Refuge Association and Swarovski Optik North America announce the 2005 Refuge Photo Contest a digital photo contest to showcase America's national wildlife refuges.*

You can submit your National Wildlife Refuge System images on the NWRA website beginning July 8, 2005. There is no entry fee. Images can be of birds, mammals, insects, fish, other animals, plants, people, or refuge scenery. Uploads must be completed by Midnight Eastern time on December 15, 2005. Results will be announced on March 14, 2006.

Winning entries will be selected by two rounds of judging. The first round will select up to 200 images to be included in the NWRA Refuge Image Library. The second round will result in the selection of the top prize winners.

To enter the contest or for more details please visit [http:// www.refugenet.org/contest/ContestHome](http://www.refugenet.org/contest/ContestHome)

*The Refuge Corner*  
*By: Terry Villanueva*

***Comcast Cares Day at Bombay Hook Enhances  
Wildlife Habitat, Public Recreation,  
and Education***

You will see the results of a recent partnership effort with Comcast of Delmarva, Inc. next time you visit the Refuge. The grounds around the refuge's visitor's facility/headquarters and entrance sign had become overgrown with non-native plants and shrubs. As part of Comcast Cares Day, an annual, company-wide initiative, 93 employee-volunteers replaced the existing landscaping with over 450 native plantings in a more attractive and environmentally favorable configuration.

Not only does the landscaping make the headquarters and entrance sign more visually appealing, it provides wildlife habitat, and will serve to educate the public about the plants that are native to the Refuge and Kent County and how they provide food and cover for wildlife. Comcast and their employees also assembled and installed bicycle racks at trail heads along the wildlife drive and provided and treated new picnic tables for the headquarters/visitor facility area. After finishing the landscaping project, they even assisted with an Eagle Scout trail project nearby!



*The Entrance Sign Gets Spruced Up with Native Plants During Comcast Cares Day*

A unique aspect of this volunteer project was that Comcast also contributed financial support to the effort by contracting with a landscaper to prepare the site and purchased over 450 plants, the new picnic tables, and bicycle racks. They evaluated the safety needs for the projects, coordinated the employee-volunteers, and provided a tent,



*Employees-Volunteers From Comcast Cable Painting New Picnic Tables*

lunch, snacks, hats, gloves, and tee shirts. This project would not have been possible without their financial support for supplies and materials and the help of Comcast's energetic employees.

We are also fortunate that Bombay Hook volunteer, Quentin Schlieder, Retired Director of Morris County Park System (NJ) (Horticulturist), shared his expertise by selecting the plants, designing and drawing the plans for the landscaping, and creating an informational brochure about the plants. Flavia Rutkosky, USFWS, Delaware Bay Estuary Office, also assisted by providing some information for the brochure.

As stated in the brochure, the original landscaping at the Visitor Center was a monoculture of non-native firethorn. The new landscaping provides a diverse, wildlife-friendly



*Comcast Volunteers Replace Landscaping at the Refuge Headquarters with Native Plants that Provide Food and Cover for Wildlife*

landscape of native plants with four-seasons of interest. We hope it will inspire homeowners to implement wildlife-friendly plantings in their own gardens. Most of the plants in the landscaping occur on the refuge. The brochure outlines the plants needs, wildlife value, and the exotic species they can replace. This was evident as butterflies had already begun to feed on some of the flowers and the volunteers were finishing the project.

This partnership was also made possible in part by the relationships developed through the Friends of Bombay Hook becoming a member of the Chamber of Commerce. Tom Worley, Area Director of Government Relations/Public Affairs, at Comcast, participated in the Central Delaware Chamber of Commerce's Leadership Development train-

ing program by helping coordinate a day focusing on History and Environment of Kent County because Comcast was a sponsor. Through the Central Delaware Chamber of Commerce, I became aware of the Leadership Central Delaware (LCD) Program and was a student in 2003-2004. I met Tom and worked with him on coordinating recent LCD History and Environment days. Through this relationship, Tom was familiar with the Refuge and nominated Bombay Hook as a potential volunteer site.

After the site was selected, Bill Malone, Manager of Government Relations and Public Affairs, took over the project. He organized coordination meetings and the took care of all the details for the day. Comcast Delmarva, Inc. Vice President and General Manager Henry Pearl also demonstrated his commitment to the project by participating with the planting that day. Martha Nudel of the National Wildlife Refuge System Washington D.C. Office presented Mr. Pearl with a plaque on behalf of the Refuge in appreciation for their contribution.

With recent and projected funding and staffing decreases for the National Wildlife Refuge System, partnerships are becoming increasingly vital to helping us meet our wildlife conservation mission and providing wildlife-dependent recreational opportunities for Bombay Hook.

While many corporations engage in community outreach, it is heartening for a major company like Comcast to encourage all of its employees to volunteer together on one day to make a difference in each of the communities that Comcast serves. This project resulted in on the ground improvements for wildlife habitat and public recreation and education and would not have been possible without the assistance of Comcast. We are grateful to Comcast and its employees for the hard work, dedication and spirit of volunteerism that they displayed.

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***Did You Know.....?***

Volunteers of Bombay Hook had a lot of items on their "TO DO LIST". During the past year, volunteers clocked over 4,800 hours on the projects listed:

| <u>Projects</u>       | <u>Completed</u> |
|-----------------------|------------------|
| Visitor Center        | √                |
| Waterfowl ID Workshop | √                |

|  |   |
|--|---|
| Bird Counts  | √ |
| Friends of Bombay Hook Festival  | √ |
| Table Top Festival   | √ |
| Allee House  | √ |
| Pea Patch Trip   | √ |
| Highway Cleanup  | √ |
| Artwork for bird migration game  | √ |
| Native Plant Garden  | √ |
| Lesson plan for garden activity  | √ |
| Computer projects for store  | √ |
| Computer input for volunteer list  | √ |
| Exhibit work – Library   | √ |
| Webpage Design   | √ |
| Database for volunteer’s time/reports  | √ |
| Bird Counts  | √ |
| Office Work  | √ |
| Environmental Education  | √ |
| General Maintenance  | √ |
| Cutting Grass  | √ |
| Vehicle Maintenance  | √ |
| Sign Maintenance   | √ |
| Leaf Presses   | √ |
| Cleaning   | √ |
| Bluebird box maintenance and monitoring  | √ |
| Friends’ Newsletter  | √ |
| Conducting Birding Tours   | √ |
| Conducting Children Tours  | √ |
| Purple Martin House maintenance and monitoring   | √ |
| State Science Standard   | √ |
| Writing (Auto-Tour Brochure, Boardwalk Trail, Bear Swamp Trail, Allee House information, CCC article, exhibits, newsletter articles) | √ |
| Proofreading   | √ |
| Data Collection  | √ |
| Horseshoe Crab Survey  | √ |
| Photography  | √ |
| Construction Projects – leaf presses for BOW program   | √ |
| Computer Program   | √ |
| Wood Duck Box Construction   | √ |
| Landscaping  | √ |
| Eagle Scout Project  | √ |
| Trail Work   | √ |
| Nest Boxes   | √ |
| Special Events   | √ |
| Exhibit Work   | √ |
| Population censusing   | √ |

## Bombay Hook National Wildlife Refuge

Celebrates National Wildlife Refuge Week by offering a  
Family Nature Scavenger Photograph Search Challenge

Sponsored by



Bombay Hook NWR in Smyrna, Delaware invites families to celebrate National Wildlife Refuge week by participating in a **nature scavenger photograph search** from **October 16 – November 5, 2005**. Families will have 10 clues about wildlife and habitat designations located on the Refuge. When the family has found the designated area, the family will take a photograph of family members at the area. This will be proof that your family has completed all 10 clues. When you complete the scavenger photograph search, turn in your photographs at Bombay Hook's Visitor Center on or before November 5, 2005. Each family (up to 50 families) that hand in their completed search photographs will receive an entrance pass to Bombay Hook National Wildlife Refuge (valid for 1 year). Is your family up to the challenge?

**Clue 1:** As you enter the Refuge look for the Refuge name and the federal organization that the refuge system is part of. HINT: USFWS. Take a family picture in front of the sign.

**Clue 2:** As you walk a trail that has a boardwalk over the salt marsh, look for a sign that shows a creature with one large and one small claw. You might see live ones scurrying into mud holes. Take a family picture in front of the small sign.

**Clue 3:** At the end of a trail you will find steps to climb, and at the top you will find out how an impoundment is managed for the different seasons of the year. Take a family picture in front of the sign.

**Clue 4:** At the end of one trail you will find a floating dock and will be able to look through an eye piece that makes the birds look larger. Take a family picture in front of the scope.

**Clue 5:** As you drive through the Refuge look for birds in their natural habitat. Take a family picture in front of a habitat with geese, ducks, egrets, herons, or any bird will do.

**Clue 6:** As you drive the auto-tour route look for a place that used to hold corn, now it provides safe nesting places for owls. Take a family picture in front of the structure.

**Clue 7:** The Finis fresh water area of the Refuge provides a habitat for many animals. Look for a sign that explains the importance of diverse wildlife and plant communities. Take a family picture in front of the sign.

**Clue 8:** As you drive through the Refuge you will see a brick house (behind a row of trees) built in 1753. The gate will be locked near the house. Walk to the other side of the gate and in front of the house. Take a family picture in front the house.

**Clue 9:** Stop at the building open to visitors and look for some mounted animals. Find an animal that lives in the fresh water and likes to slide down mud banks, has fur on his tail, and is 33 inches tall. HINT: He is eating a fish. Take a family picture in front of the animal.

**Clue 10:** As you exit the Refuge gate look for a small white sign with a blue goose. Don't go beyond the sign! Take a family picture in front of the sign.

## Bombay Hook NWR Calendar of Events

**October 13, 2005** Salt Marsh Boat Ride - Meet at the Refuge Visitor Center at 7:30 am. The boat ride will be approximately 1- 1/2 hours long. Meander through the salt marsh with Arthur Straughn and Ray Brown, Refuge staff, looking for snow geese, ducks, large wading birds, hawks, and more! Be prepared for cold weather and possibly getting a little wet! Call to register, 302-653-6872.

**October 15 and 16, 2005** Hawk Program with Zack Williams. Programs will be held at 8:00 am, 10:00 am, and 12:00 noon Saturday and Sunday.

**October 18, 2005** Salt Marsh Boat Ride - Meet at the Refuge Visitor Center at 10:30 am. The boat ride will be approximately 1- 1/2 hours long. Meander through the salt marsh with Arthur Straughn and Ray Brown, Refuge staff, looking for snow geese, ducks, large wading birds, hawks, and more! Be prepared for cold weather and possibly getting a little wet! Call to register, 302-653-6872.

**October 22, 2005** Highway Clean Up. Bring your gloves and wear shoes that can get wet. Meet in the Auditorium at 9:00 am. Refreshments will be served after the clean up. We are usually finished by 12 noon or 1:00 pm. Sponsored by Friends of Bombay Hook, Inc.

**October 29, 2005** FERN SYMPOSIUM

**WHO:** Open to the public - \$15.00 registration. Price includes lunch and 1 year membership to Friends of Bombay Hook or to the Delaware Native Plant Society. Members of Delaware Native Plant Society and Friends of Bombay Hook attend free. Registration closes at 40 people. To register and for more information contact Quentin Schlieder, 302-653-6449.

**WHEN:** Saturday, October 29, 2005

**TIME:** 10:00 am - 3:00 pm

**WHERE:** Bombay Hook National Wildlife Refuge - Visitor Center Auditorium

**INSTRUCTOR:** Dr. James Montgomery, Director of Terrestrial Studies, Ecology III, Environmental Consulting Firm

Dr. Montgomery, author of and the authority on **New Jersey Ferns and Fern Allies**, will present a slide program on Ferns and Fern Habitats of the Eastern United States. The program will be tailored to identifying and growing ferns native to east of the Mississippi, especially those native to Delaware. Dr. Montgomery will bring along copies of his book for you to purchase and have autographed. The program includes:

- 10:00 am - Coffee and Danish
- 10:15 am - Identifying Native Ferns
- 10:45 am - Break
- 11:00 am - Growing Native Ferns
- 12 noon - Lunch
- 12:45 pm - Sale of Native Ferns
- 1:45 pm - Field trips (two options)  
Bear Swamp Trail at Bombay Hook NWR or  
Woodland Beach Rich Woods

**November 5, 2005** Waterfowl Identification Trip

**WHO:** Open to the public - Free

**WHEN:** Saturday, November 5, 2005

**TIME:** 8:00 am - 12 noon

**WHERE:** Bombay Hook National Wildlife Refuge

**INSTRUCTOR:** Jeff Gordon, Associate Director, Delaware Nature Society, Abbott's Mill Nature Center

Enjoy a morning learning about and identifying waterfowl and other birds that migrate through or winter in the Delaware Bay area. Jeff will lead the group along Bombay Hook's three fresh water impoundments and the tidal salt marsh identifying ducks, geese, and other bird species. Jeff graduated from the University of Delaware in 1988 and worked as an interpretive naturalist in Yosemite and Acadia national parks, and at Santa Ana National Wildlife Refuge. From 1989 - 2002, he led birding tours for Victor Emanuel Nature Tours. This work took him all over North America, from Panama to the Arctic Circle. He has also led tours to Kenya and Antarctica. Today, Jeff is the Associate Director at Abbott's Mill Nature Center.

**November 6, 2005** Bicycle Tour on the Refuge. 10:00 am -12 noon.

Join Tina Watson, Outdoor Recreation Planner, for a guided bicycle tour. She will make several stops to discuss habitats, wildlife management techniques, and to do waterfowl identification. The guided trip will be approximately 4 miles. Riders may continue their bicycle tour on their own through the 8 miles of Refuge roads. Roads are packed dirt and a bicycle with hybrid tires is suggested. **Bring your helmet** and check the air in your tires!

**November 8, 2005** Waterfowl Identification Trip. 8:00 am - 11:00 am. Meet at the Visitor Center.

Frank Rawling and Ken Liehr, avid birders and Refuge volunteers, will lead the trip to identify the ducks, geese, and other bird species spotted along the three fresh water impoundments and the tidal salt marsh.

**November 15, 2005** Waterfowl Identification Trip. 8:00 am - 11:00 am. Meet at the Visitor Center.

Frank Rawling and Ken Liehr, avid birders and Refuge volunteers, will lead the trip to identify the ducks, geese, and other bird species spotted along the three fresh water impoundments and the tidal salt marsh.

**November 22, 2005** Waterfowl Identification Trip. 8:00 am - 11:00 am. Meet at the Visitor Center.


Frank Rawling and Ken Liehr, avid birders and Refuge volunteers, will lead the trip to identify the ducks, geese, and other bird species spotted along the three fresh water impoundments and the tidal salt marsh.

**November 29, 2005** Waterfowl Identification Trip. 8:00 am - 11:00 am. Meet at the Visitor Center.

Frank Rawling and Ken Liehr, avid birders and Refuge volunteers, will lead the trip to identify the ducks, geese, and other bird species spotted along the three fresh water impoundments and the tidal salt marsh.

**December 3, 2005** Volunteer Recognition Awards – 1:00 pm – 3:00 pm. Bombay Hook Visitor Center

Check for an updated schedule on the website at: [bombayhook.fws.gov](http://bombayhook.fws.gov)

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