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### *The President's Corner*

*By: Frank Rawling*

#### *Those White Poles*

Several times this fall I have been asked by visitors "What are those white poles for that are in the impoundments?" Well, here is the answer. They are a critical part of a research program conducted by Ray Brown, the Refuge Biologist. Ray is conducting this program in conjunction with the Patuxent Research Refuge in Laurel, MD. During the course of the year, but especially during migration season for shorebirds and waterfowl, Ray carries out bird surveys of the impoundments and marsh. In these surveys invariably birds are undercounted. This is because some birds are hidden in the vegetation. These poles, located in Raymond Pool and Sheariness Pool, mark off sections of the vegetated area in both locations. There are 65 acres marked off in each pond and there are 32 survey points in each pond. Three times during the year the birds flushed from these points are counted. The counts take place in August, the peak of the shorebird migration, September, the transition between shorebird and waterfowl migration, and November, the peak of the waterfowl migration. Assistants walk through each section flushing the birds and observers on the dikes and in the towers count the birds flushed. In addition the type of invertebrates and vegetation in each section are surveyed. The results are forwarded to Patuxent where the data is statistically analyzed. The goal of the research is to define the best way to manage the impoundments for birdlife.

Most Refuges carry on a research program as part of their mission. However, as mentioned above, Patuxent is a research refuge. That is, research is the primary focus of their mission. Patuxent has for many years been the home of the bird banding laboratory. If you should locate a bird that has

been banded with either a metal or plastic ring on the leg or a collar on the neck (often used on geese) and can read the information on the band then, by contacting the laboratory at Patuxent, you can learn where and when that bird was banded. Such information is how we learn more about bird migration and bird movement in general. Patuxent has been at the forefront of endangered species research for many years.

Another research refuge is Sevilleta NWR south of Albuquerque, NM, a refuge that I had the pleasure of visiting and touring this fall. The main focus of Sevilleta is long-term ecological research and the restoration of lands that have been impaired by many years of livestock grazing. Sevilleta is a large refuge of approximately 230,000 acres. It covers two mountain ranges, the Rio Grande Valley, and the northern end of the Chihuahan Desert. Because of its remoteness, it was chosen a few years ago to help implement the reintroduction of the Mexican Gray Wolf. Unfortunately on our tour of the Refuge we did not spot a wolf – perhaps next time!

The National Wildlife Refuge System is unique. We are indeed fortunate in this country to possess such a treasure.

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#### **A Reminder**

**The Friends of Bombay Hook (FOBH) is a 501 (c)(3) non-profit organization.**

**Therefore, monetary contributions made to FOBH are tax-deductible.**

## *The Refuge Store*

*By: Verna Price*

The Refuge Store had a great fall season, thanks to all of you who visited and made purchases.

This winter business has been slow, but we will have new items in stock for spring. We have the “Mad Bluebird” mugs, magnetic pads and coasters as well as the “Chorus Line” bird mugs and magnetic pads. We have also reordered books, t-shirts and carved jewelry.

If you have any suggestions of items to sell in the store, please let us know as we are always on the lookout for things visitors might like.

We look forward to seeing you in the Refuge Store!!!!

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## *Bird Notes*

*By: Frank Rawling*

### *The Fall Migration*

It was a warm fall. September was 4.1 degrees above normal, October 1.9 degrees above normal, and November also 1.9 degrees above normal. Both September and November had below average precipitation but October was 4.7 inches above average. The fall essentially averaged out to average precipitation. Did these climate differences have any effect on birds seen at the Refuge? Let's see.....

### September

The month began with the sightings of 2 **Black Terns** at Bear Swamp and both **Stilt Sandpipers** and **White-rumped Sandpipers** were seen at Raymond Pool. Shearness held some **Pectoral Sandpipers** and **Caspian Terns** as well as a **Peregrine Falcon**. The **Black Terns** were still at Bear Swamp on the 2nd. The same day a **Cooper's Hawk** was seen by the Visitor Center. On the 3rd the **Peregrine Falcon** was seen taking a **Dowitcher**. The same birders saw a **Red-necked Phalarope** at Bear Swamp and a **Tri-colored Heron** at Shearness. Two **Bald Eagles** were seen from the Boardwalk Trail on the 3rd. A couple of **Whimbrels** were seen at Bear Swamp on the 4th as well as 5 **Black-necked Stilts**. The **Tri-colored Herons** were at Bear Swamp on the 5th. Also on the 5th a

diverse group of shorebirds were in evidence at Shearness. Included were **Dunlin**, and **Pectoral, Western, Semi-palmated**, and **White-rumped Sandpipers**. An **American Avocet** was at Shearness and both **Yellowlegs** were seen at Bear Swamp. Two **Clapper Rails** were seen at Shearness and back at Bear Swamp a **Merlin** was in the area and 2 **Little Blue Herons**, one an immature. On the 6th the **Merlin** was sighted across from the parking lot at Raymond Pool and a moderate size flock of **Bobolinks** were seen in one of the fields near the Visitor Center. At Shearness the **Black-necked Stilt** population had grown to 30 on the 6th and a dozen **Snow Geese** were seen. An **American Golden Plover** was observed at Shearness on the 8th. Also on the 8th 2 **White-eyed Vireos** were seen near the Allee House. Two **Cooper's Hawks** were seen at Shearness on the 8th. The same area saw a **Yellow-crowned Night Heron** on the 11th. A nice observation was a **Golden Eagle** over the Visitor Center on the 13th. On the 16th **Bobolinks** were seen in the vicinity of both Raymond and Shearness Pools. The same observer noticed an **American Golden Plover** at Shearness and a **Tri-colored Heron** at Bear Swamp. A **Black Tern** was still at Bear Swamp on the 17th and there were 2 **Marbled Godwits** at Shearness and a **Curlew Sandpiper** at Bear Swamp. Two **Buff-breasted Sandpipers** were at Raymond on the 25th and the first **Ross's Goose** of the season was spotted the next day. The number of **Buff-breasted Sandpipers** had risen to 11 in Raymond Pool on the 27th. The same birder spotted a **Palm Warbler** that day at Raymond. Warblers were still around on the 28th when a **Prairie Warbler** was seen in the Native Plant Garden on the 28th and on the 30th a **Canada Warbler** was seen at the Raymond Tower and a **Palm Warbler** at Bear Swamp Trail. The month ended with the sighting of 8 **Pectoral Sandpipers** at Bear Swamp.



*Canada Warbler*

### October

A **Virginia Rail** was seen along the Boardwalk Trail and a **Clapper Rail** was seen on the bayside of Shearness. The same observer of the rails spotted a **Buff-breasted Sandpiper** in Shearness Pool to begin the month. On the 2nd there was a large group of **Great White Egrets** in residence at Bear Swamp. A **Wilson's Snipe** was seen in

Bear Swamp on the 5th. Both a **Peregrine** and an immature **Northern Harrier** were seen on the 6th. No less than 3 **Peregrines** were seen at Bear Swamp on the 9th. This was followed by a **Sharpshinned Hawk** at the Visitor Center on the 11th. And, an **Osprey** was still in the area of Bear Swamp on the same day. The 12th saw 2 **Peregrines** at Sheariness as well as a **Brown Pelican** noticed flying over the same area. The same day Sheariness hosted 6 **Marbled Godwits** and **Hudsonian Godwits** were seen there on the 13th. Sheariness was popular that day with a large flock of **American Avocets**. The Avocet flock in Sheariness was estimated at 400 on the 14th. The 14th was apparently a raptor day for a **Peregrine**, a **Cooper's Hawk**, and 8 **Northern Harriers** were seen in the Sheariness area. One birder saw a **Marbled Godwit** on Raymond and a **Hudsonian Godwit** at Sheariness. It always pays to watch the fields and telephone wires along Whitehall Neck Road (the entrance road to the Refuge) for one regular birder at the Refuge saw 4 **American Kestrels** along the road. Both **Godwits** were still hanging around on the 15th and 16th. An **Eastern Screech Owl** was seen at the corn crib on the exit road from Bear Swamp on the 16th. A survey of the **Snow Geese** on the Refuge gave a count of 2,800 on the 18th. On the 20th Sheariness still hosted about 250 **American Avocets**. One observer that day counted 19 **Hudsonian Godwits** at Raymond Pool. The same person saw a **Red-necked Phalarope** there also. A nice find was a **Lincoln's Sparrow** at the Native Plant Garden on the 23rd. The same day a **Pied-billed Grebe** was seen at Sheariness as well as a **Great Horned Owl**. A **Cackling Goose** was seen at Raymond that day as well as 3 **Blue-headed Vireos** and 5 **Hermit Thrush** along the Boardwalk Trail. In the Bear Swamp area both a **Winter Wren** and a **House Wren** were seen. **Ruddy Ducks** put in an appearance on the bayside of Sheariness on the 24th and 3 days later a **Merlin** and **Boat-tailed Grackles** were seen at Sheariness. A late **Yellow-billed Cuckoo** was seen from Raymond Tower on the 12th. A **Golden Eagle** was spotted in a fly-over at Bear Swamp on the same day. On the 28th a **Brown Creeper** was seen in the area of the feeders at the Visitor Center. **Northern Pintails** and **Green-winged Teals** were seen on the 30th. In addition some 30



*Brown Pelican*

**Ruddy Turnstones** were seen at Sheariness that day. A couple of **Pine Siskins** were also at the feeders on the 30th and 4 **Yellow-rumped Warblers** were seen along Raymond Trail. Both **Kinglets** were seen that day also. A **Palm Warbler** was seen in the feeder area on the 31st. and the month ended on a high note with the sighting of a **Gray-cheeked Thrush** along the Parson Point Trail.

### November

The first **Rough-legged Hawk** of the season was spotted over the north end of Bear Swamp on the 1st. A **Tundra Swan** was also seen that day at Sheariness. On the 2nd a nice observation at Sheariness was a **Vesper Sparrow**. The Boardwalk Trail on the 2nd held a **Black and White Warbler** and in the area of the Visitor Center the same observer saw a **Fox Sparrow** and 2 **Hairy Woodpeckers**. On the 4th, a gray-phase **Eastern Screech Owl** was seen in a wood duck box behind the Visitor Center. The birder also saw a **Winter Wren** on the Raymond Tower trail and a **Barn Swallow** flying over Bear Swamp. There were a lot of waterfowl on the Refuge on the 4th with the impoundments holding **Northern Pintail**, **Green-winged Teal**, **Ruddy Ducks**, **Black Ducks**, **Northern Shovelers** as well as



*Vesper Sparrow*

**American Coots**. In addition there were still **Great Blue Herons** and **Great White Egrets** on the Refuge. A **Wilson's Phalarope** and a flock of **Ring-necked Ducks** were seen on the 5th. The same day a birding group also saw 3 **Redheads** on Sheariness and 2 **Peregrines**. A late-staying **Magnolia Warbler** was seen that day also. On the 6th 2 **Winter Wrens** were seen at the Finis turnaround. Three **American Golden Plovers** were seen along Whitehall Neck Road on the 7th as well as a **Red-shouldered Hawk** at the Raymond Tower parking lot and **American Pipits** along the Allee House road. Also on the 7th the Parson Point trail held **Brown Creepers**, **Golden-crowned Kinglets**, **Ruby-crowned Kinglets** and an **Eastern Phoebe**. On a FOBH birdwalk on the 8th a lesser **Black-backed Gull** was seen on the bayside of Sheariness as well as a **Peregrine Falcon** and 4 **Bald Eagles**. Bald Eagles have been quite common on the Refuge this fall. A waterfowl survey on the 9th picked up **Redheads**, **Hooded Merganser**, **Greater Scaup**, **Bufflehead**, and **Ruddy Ducks**.

Three **White Pelicans** were observed on the bayside of Shearneck on the 10th. They were also seen in Shearneck Pool late that afternoon. On the 12th a **Hermit Thrush** was seen along the Boardwalk Trail. Raymond Pool held 100's of **Dunlin** on the 12th and a **Willet** was seen on the bayside of Shearneck. A **Ross's Goose** was spotted in Shearneck on the 13th. An **American Bittern** was seen from the overlook at Shearneck on the 13th as well as a **Pied-billed Grebe**. There was still one **White Pelican** in the area on the 17th. And 3 **Saltmarsh Sharp-tailed Sparrows** were seen by a school group at Bear Swamp on the 19th. There were still **American Avocets** at Raymond on the 19th. The 20th turned up a real find when a **Western Kingbird** was spotted along Raymond Dike by a longtime Refuge birder. A **Cackling Goose** was also seen that day in Shearneck Pool. **Eastern Meadowlarks** were seen on the Refuge on the 23rd and 2 **White Pelicans** were hanging on at Shearneck. **American Pipits** were seen in their traditional area along the road to the Allee House on the 23rd and a female **Wood Duck** was at Bear Swamp. **Gadwall** was seen at Finis on the 25th as well as a **Great Blue Heron** making a meal of a snake! An **American Bittern** was seen at Shearneck on the 26th and a **Kingfisher** on the 28th also at Shearneck.

*Cheers and Good Birding!!!*

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***Bombay Hook Visitors Bring \$4.3 Million to the Local Economy***  
***By: Terry Villanueva***

A recent report entitled ***Banking on Nature 2004: The Economic Benefits to Local Communities of National Wildlife Refuge Visitation***, was compiled by U.S. Fish and Wildlife Service economists. It states that the economic impact of recreational use on national wildlife refuges generated almost \$1.4 billion in total economic activity during the 2004 fiscal year.

According to the study, nearly 37 million people visited national wildlife refuges in 2004, creating almost 24,000 private sector jobs and producing about \$454 million in employment income. Additionally, recreational spending on refuges generated nearly \$151 million in tax revenue at the local, county, state and federal level.

We are pleased that Bombay Hook was one of the refuges listed in the study. It indicates that the Refuge generated \$4,316,600 in 2004 in revenue from recreational expenditures by visitors. This resulted in 37 jobs being generated and \$855,000 tax revenue. The Refuge generates \$7.29 of revenue for every dollar spent in operations. Much of this impact is the result of visitors that travel from out-of-state to visit the Bombay Hook for wildlife observation, photography, and hunting.

This report discusses just one benefit of the National Wildlife Refuge System. Refuges like Bombay Hook also provide important environmental benefits to areas by conserving important wildlife habitat including wetlands. The marshes of Bombay Hook provide nursery areas for fisheries including those that are commercially harvested. Wetlands also are important for water quality and to reduce flooding.

The report reinforces the travel industry's belief that ecotourism is becoming big business, according to Roger Dow, president of the Travel Industry Association of America, who unveiled the report with the Secretary of the Interior. The study measured the economic impact of ecotourism, large numbers of people traveling substantial distances for outdoor activities like wildlife observation and photography, as well as more traditional refuge programs like hunting and fishing.

For a copy of the full report on 93 national wildlife refuges visit <http://www.fws.gov/refuges/>.

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***Those Other Critters At Bombay Hook***  
***Part II***  
***By: Robert W. Mayer***

Although birds are Bombay Hook's most visible inhabitants, they share the refuge with many species of mammals, reptiles, and amphibians. In Part I we met some of the thirty-five mammal species living in various habitats of the refuge. So now let's turn our attention to a sample of the twenty-one species of reptiles and fourteen species of amphibians that are known to live here. Authorities agree, however, that probably there are other species native to this area that to date have not been found on the refuge itself.

Most of the mammals are nocturnal and, therefore, abroad when the refuge is closed to visitors. Reptiles and amphibians are mostly diurnal but often remain unseen for different reasons. They are generally small; they stay hidden in cover; and many have excellent camouflage. In fact, school students who conduct habitat studies as part of the environmental education program are the visitors most likely to encounter these inhabitants.

### **The Reptiles**

Of the twenty-one species of reptiles, two are lizards, eight are turtles, and eleven are snakes, and none are poisonous.

The **five-lined skink** and the **northern fence lizard** are uncommon, but both are present. These two lizards are found in similar woodland habitats where there are fallen logs, dead trees, and forest debris, although the fence lizard prefers the more open edges of forests, while the skink is more attracted to wet wooded areas. Both are similar in size, up to about eight inches. Both also have similar diets: insects and small invertebrates. A behavioral difference, however, is that the skink is terrestrial, while the fenced lizard is arboreal, and its favorite trick when threatened is to climb straight up the trunk of a tree, remaining on the side away from its enemy. But the skink has another escape mechanism: if grabbed by its tail, the tail simply drops off (a new tail then regenerates). Their appearances also are quite different. The fence lizard has rough, overlapping scales, while the skink's scales are smooth, but it is the juvenile skink that has the species most distinctive feature – its tail is bright blue.



*Five-Lined Skink*

For many people snakes may be their least favorite reptile, at least until they meet the **eastern wormsake**. At first glance it appears to be a large earthworm (actually, earthworms happen to be its favorite food), but then on closer examination the mouth and eyes of its small but distinct snake head clearly identify it as a snake, not a worm. The wormsake is a favorite with school groups and is frequently found in Finis Woods.

The **black ratsnake** and the **eastern gratersnake** are probably best known because they are so commonly found

throughout this region in varied habitats – including gardens and buildings. The **common watersnake**, however, is the most frequently observed snake on the refuge, often seen basking in the sun on warm days or swimming in one of the freshwater pools.

Many consider the **northern rough greensnake** our prettiest. Sometimes called the vine snake, this slender snake is emerald green above, lighter on its underside, is an excellent climber and blends in with vines and shrubs as it searches grasshoppers, crickets, and spiders.

Two interesting snakes are the **eastern hog-nosed snake** and the **northern black racer**. The hog-nosed snake's diet is mostly frogs and toads, and our **Fowler's toad** is its favorite food. When threatened, this snake puffs up and flattens its head and neck, hisses, and then rises up cobra-fashion, but if this bluff doesn't work, it coils up, defecates, releases a foul-smelling musk, rolls on its back and plays dead possum-fashion.

Although the black racer's scientific name is *Coluber c. constrictor*, it does not use constriction to kill its prey. But like the hog-nosed, it rises up cobra-fashion to strike and is known to bite repeatedly. Usually, however, it uses its speed to get away. The black racer is second only to the black ratsnake in size, reaching five feet in length.

Unlike the other reptiles, turtles are frequently observed in the freshwater impoundments. In the spring, **eastern snapping turtles** can be found laying eggs along the dike roads and edges of fields; **eastern painted turtles**, our most common and frequently observed turtles, and two less common species, **spotted turtles**, and **northern red-bellied cooters**, bask in the sun on logs and mud banks of Shearness, Bear Swamp, and Finis Pools.

While some of our turtles are found in brackish as well as freshwater (e.g., eastern snapping turtles and **eastern mud turtles**), the **northern diamond-backed terrapin** lives only in the brackish water of the salt marsh. Interestingly, both snapping turtles and diamond-backed terrapins have found their way into soups: snapper soup, made famous by a Philadelphia restaurant, and terrapin soup, a feature of an exclusive dining club in Baltimore. However, while demand for snapper soup never threatened the snapping turtle population, the population of diamond-backed terrapins was significantly reduced in the first half of the twentieth century by

# Friends of Bombay Hook Supports the Refuge



Ken Liehr fills the bird feeders. Friends purchased 3 finch and sunflower feeders, and the bird seed.



Joel Martin checks the new purple martin system.



48 people attended the volunteer recognition luncheon.



Tina Watson delivers 40 toys to the Salvation Army's Holiday Toy Drive. Volunteers brought them to the Volunteer Recognition luncheon.



Zack Williams, volunteer at Hawk Mountain (PA), provided 2 days of raptor identification programs in October at Bombay Hook. He had 58 participants and 12 species of raptors were identified: Bald Eagle, Osprey, Peregrine Falcon, American Kestrel, Merlin, Cooper's Hawk, Sharp-shinned Hawk, Red-tailed Hawk, Red Shoulder Hawk, Northern Harrier, Black Vulture and Turkey Vulture.



Brownie group learns about the Refuge, birds and native plants. The ferns were donated by Friends for the girls to plant in the garden.

## Friends of Bombay Hook Sponsors Programs

- Volunteer Recognition
- Raptor Program
- Photo Challenge for NWR Week
- Girl Scout Programs
- Eagle Scout Programs
- Cub Scout Programs
- Fishing Events
- Festivals



Friends of Bombay Hook sponsor the fishing event for 2 local Boys' and Girls' Clubs.



the demand for this culinary specialty.

### **The Amphibians**

Fourteen species of amphibians have been identified on the refuge, including three species of salamander, one toad, and ten frogs.

Two salamanders, the **eastern red-backed salamander** and the **marbled salamander** are commonly found in Finis Woods by students in the environmental education program.

Most of our red-backed salamanders are the lead-backed morph that has a gray or black back rather than a red stripe down the back. These salamanders have no lungs and are able to get oxygen through their skin and mouth linings. They are terrestrial, living in the leaf litter of the forest floor, and they do not have an aquatic stage in their live cycle, as do most other salamanders.

The marbled salamander and the uncommonly found **spotted salamander** are mole salamanders, burrowing underground or living under logs. The marbled salamander, unlike the red-backed, has lungs and an aquatic larval stage. Its black and white appearance makes it easy to identify.



*Spotted Salamander*

**Fowler's toad** is the only toad species found at Bombay Hook, and an abundant population is found on the refuge. At times in late spring and early summer they seem to be everywhere when after a relatively short tadpole stage they metamorphose into little toads. Fowler's toads secrete a toxin that discourages predators and is irritating to mucous membranes, although the hog-nosed snake is not bothered by it (see above).

Frogs are members of another order that are recognized by visitors, more often by sound than by sight. We know that spring is on its way when we hear the **northern spring peepers**, **New Jersey chorus frogs**, and **wood frogs** calling in late February and early March. The **American bullfrog**, our largest frog, also is heard more often than seen, although bullfrog tadpoles are a common find by students dipping nets in Finis Pool.

**Pickrel frogs** and **southern leopard frogs** are somewhat similar in that both often can be found in flood plain meadows some distance from water and therefore are more easily found the species that are totally aquatic. Both also have large spots on their backs, but those on the leopard frog are rounded, while those on the pickrel frog are squarer. Like Fowler's toad, the pickrel frog secretes a toxin that is poisonous to predators.



*Pickrel Frog*

The **green treefrog** is a favorite with students who are lucky (and quick) enough to catch one. This slender, long-legged, bright green frog has "suction cups" on its feet, allowing it to attach itself to almost any surface, including the shirt of its captor. It prefers freshwater swamps and adjacent moist woodlands – such as are found at Finis.

So, now next time you visit Bombay Hook, look again for those other critters, the mammals, amphibians, and reptiles.<sup>1</sup>

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<sup>1</sup> References used for this two-part series of *Those Other Critters at Bombay Hook, Part I and Part II* were:

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***The Refuge Corner***  
***By: Terry Villanueva***

***Introducing Jesse Weigand***



*Jesse Weigand with Woodducks*

We are pleased to welcome Jesse Weigand to Bombay Hook NWR. Jesse arrived October 10 with his wife Kristen, dogs Max and Lexxi, rabbit Pig, and various frogs, a toad and a turtle. Jesse is the new Maintenance Worker, filling the position vacated by Dale Hudson five years ago.

Jesse grew up on Tug Hill near the Adirondacks in northern New York. Working on a National Wildlife Refuge is a good fit for Jesse, because he enjoys being in the outdoors, including hunting and fishing. Jesse studied surveying at Paul Smith's College in New York.

He began working for the U.S. Fish and Wildlife Service as a Survey Technician in the Northeast Regional Office in Hadley, Massachusetts in the spring of 1998. No stranger to Refuges, Jesse traveled to refuges throughout the Northeast, surveying and marking boundaries, primarily for newly acquired land. He worked at Refuges from Maine to West Virginia and North Carolina including Canaan Valley, Cape May, Rachel Carson, Nulhegan, Great Dismal Swamp, and Blackwater NWR. He even worked at Kodiak National Wildlife Refuge in Alaska for a month!

Jesse transferred to Moosehorn NWR in the spring of 2002 as a Biological Technician. While there he worked on various programs including biological surveys, prescribed burning, and boundary posting.

Upon arriving to "the Hook", Jesse jumped right in by helping with the deer hunt. He is the lead person working with the Service Asset Maintenance Management System (SAMMS) program, a computer based maintenance tracking program. Jesse has a broad knowledge of maintenance

skills, but also assists with biological work such as detectability surveys as a part of the impoundment study and helping at the deer check station. He says he enjoys working here at Bombay Hook.

It is good to have Jesse on board to fill the pressing need for the second maintenance position at the Refuge. Please join us in welcoming Jesse to the staff.

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***Tom and Marcia Poling are Recognized for  
Coordinating Bombay Hook's Highway Cleanup***  
***By: Tina Watson***

Tom and Marcia Poling have coordinated the highway cleanup at Bombay Hook for fifteen years. As volunteers and lifetime members of Friends of Bombay Hook, Inc., Marcia and Tom have embraced the spring and fall cleanups with enthusiasm and dedication. They have spent over 120 hours calling volunteers, preparing news releases, picking up signs at DELDOT, reporting results to DELDOT, taking aluminum to recycling, baking refreshments, and coordinating the volunteers for 30 cleanups.



*Tom and Marcia Poling working at one of the 30  
Highway Cleanups they have coordinated for 15 years*

Their efforts have resulted in approximately 750 bags of trash picked up along Route 9. The cleanup area starts at the Leipsic Bridge and continues north to Raymond Neck Road, which includes all of Whitehall Neck Road, and also Raymond Neck Road when enough volunteers are available (which is most of the time). They have coordinated the efforts of 270 volunteers (approximately 960 hours) over the 15 years and have provided homemade refreshments after each cleanup. Tom and Marcia's "Think Globally – Act Locally" attitude is appreciated and needed to help make our community a better place to live. Next time you see them thank them for their efforts—better yet, come and join them for the spring cleanup on April 22, 2006 at 1:00 pm.

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***Bombay Hook NWR Hosts Special Goose Hunt for Hunters in Wheelchairs***  
***By: Terry Villanueva***

Along the shores of the Delaware Bay, hunters in wheelchairs, many of them veterans, had an early Christmas with what is for them a unique and rare waterfowl hunting trip. On the Bombay Hook National Wildlife Refuge, refuge personnel, professional waterfowl guides, experienced hunters, and other volunteers helped a dozen hunters with disabilities enjoy a day filled with camaraderie, the calls of Canada geese from national champion waterfowl callers and the birds themselves. Many of these hunters had never experienced waterfowl hunting before while others had the opportunity to return to the sport after sustaining spinal cord injuries.

The day began with a pre-dawn breakfast and welcome, providing an opportunity for hunters to meet the professional guides and volunteers. After a short drive, the hunters settled into six temporary blinds amid the decoys, clover, and winter wheat fields, watching as many as 100,000 snow geese, Canada geese, and ducks that visit the refuge during the winter months.

Only four of the hunters were successful in getting geese. This was due in part to the fact that it was such a sunny day, unfavorable conditions for waterfowl hunting. Because of the hunters' limited mobility, the callers must lure the birds in very close for them to successfully get a goose. All of the hunters commented that they had a great day in the outdoors seeing geese, learning to call, enjoying the time with others in the blinds, and attempting to bag a goose. Several of them had to have lunch brought out to the blinds because they did not want to miss any part of this rare opportunity waterfowl hunting. Photos were taken, friendships were formed, and memories were made that will last a lifetime. Hunters and volunteers alike had a great day at Bombay Hook.



*Hunters and volunteers prepare to enjoy a day in the outdoors at the Wheelin' Sportsman Goose Hunt*

The youngest hunter was 13-year-old Patrick Mish. Although confined to a wheelchair due to cerebral palsy, this did not curb his enthusiasm. He woke up before dawn eager to get going and saying "Duck, goose". When his father asked him during the ride in that morning if he would still have fun if he did not get a bird, he gave a resounding, "Yes!"

The event is the result of a partnership between the National Wildlife Refuge System and The National Wild Turkey Federation's Wheelin' Sportsmen Program. The partnership was created to develop new opportunities for people with disabilities to enjoy the outdoors. Over 20 volunteers worked together to make this event possible.

This was the third year of the event at Bombay Hook NWR. The refuge worked with a steering committee to expand the program to accommodate a dozen hunters and obtain six wheelchair accessible blinds and equipment to support this as an annual event. Blinds may also be available to loan for similar events in nearby areas.

Sponsorships were obtained from Altria, Anderson Homes, Horty and Horty, P.A., Kershaw Construction, Wilmington Trust, and Wing Master Farms. Partners include the National Wild Turkey Federation, Avery Outdoors, Colonial Chapter of Paralyzed Veterans of America, Dager's Waterfowling, Tim Ground's Game Calls, the Delaware Division of Fish and Wildlife, and Safari Club International. They provided funding for wheelchair accessible field blinds, ammunition, equipment, supplies, and food. Decoys and goose calls were donated to support the event. The Friends of Bombay Hook served as the recipient of grant donations and disbursed funds to cover expenditures. Participation by Friends was a critical link for the success of obtaining grant contributions because of their non-profit status.

Bombay Hook and its partners hope that this special event can serve as a model to expand the program to other National Wildlife Refuges throughout the country. We hope that hunters will return to use the handicap accessible blind that is available as a part of the regular Refuge goose hunting program.

Justin Tackett, host of the Outdoor Life Network show Waterdog, and his dog, Yella, were there to film the event.

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**Bombay Hook NWR Hosts Episode of Waterdog for Outdoor Life Network TV**  
*By: Terry Villanueva*

**Bombay Hook Word Search**

Help find the following words

Good Luck!!!!

Bombay Hook NWR was the site of recent filming of an episode of the popular waterfowl hunting program Waterdog for the Outdoor Life Network. Host Justin Tackett and his dog, Yella, visited the Refuge for three days of filming to inform viewers about Bombay Hook and the National Wildlife Refuge System. They filmed a special goose hunt for hunters in wheelchairs and a morning of goose hunting at Bombay Hook NWR with U.S. Fish and Wildlife Service Deputy Director Matt Hogan.

The near pristine marshes, freshwater impoundments, fields, and the call of thousands of ducks, geese, and swans were the backdrop for this episode. Interviews were done with hunters, volunteers, and refuge staff working on the special wheelchair goose hunt. The film crew spent time in field blinds during the special hunt.

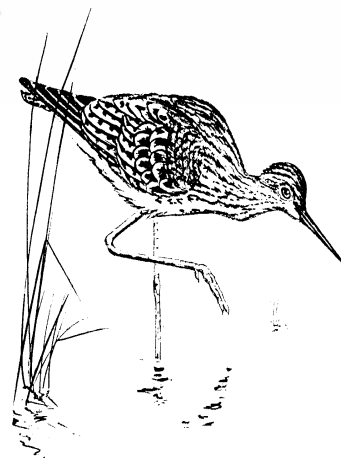
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*U.S. Fish and Wildlife Service Deputy Director Matt Hogan is interviewed for an episode of Waterdog at Bombay Hook NWR*

They returned the next day to meet Deputy Director Hogan to discuss the attributes of the Refuge System and the wildlife-dependent recreation opportunities during a goose hunt on the refuge. After being drawn last in the predawn drawing for hunt blinds, they proceeded out to the field to set up decoys. Deputy Director Hogan demonstrated his knowledge of waterfowl hunting as he called in geese for Justin and himself. Yella made a couple of great retrieves as a part of the hunt. The morning in the field was the ideal setting for Deputy Director Hogan to introduce the Refuge System and the hunting opportunities provided on these public lands to more than 1 million viewers of the Waterdog program. The program will air during the fall of 2006.

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|--------------|----------------|
| ALLEE        | IMPOUNDMENT    |
| AMPHIBIANS   | INSECTS        |
| AVOCET       | INTERPRETATION |
| BIODIVERSITY | MARSH          |
| BIRDWATCHING | MIGRATION      |
| BLUEGOOSE    | MOSQUITO       |
| BOARDWALK    | NESTING        |
| BOMBAY       | OBSERVATION    |
| BRACKISH     | OWLS           |
| DELAWARE     | REFUGE         |
| EAGLE        | SHEARNES       |
| EDUCATION    | SHOREBIRDS     |
| FIELDS       | TRAIL          |
| FOREST       | VISITOR        |
| FOX          | VOLUNTEER      |
| FRESHWATER   | WARBLERS       |
| FRIENDS      | WATERFOWL      |
| HABITAT      | WETLAND        |
| HERON        | WILDLIFE       |



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