

# Wings

Newsletter for Alligator River and Pea Island National Wildlife Refuges Vol. XIV, No. 4 December, 2011

## **Hurricane Irene Damage to Pea Island**

On August 27, storm surge from Hurricane Irene breached North Carolina Highway 12 in four places around the old refuge office, maintenance shop, and intern residence. The North Carolina Department of Transportation (NCDOT) installed a 650-foot temporary bridge across the breach and restored access to Hatteras Island at 6PM on October 10. According to NCDOT, the metal bridge should last for 10 years.

The U.S. Fish and Wildlife Service will not fill in the new inlets created by the breaches.

There was also a breach at the 'S Curves' just north of Rodanthe at the southern end of the refuge. And a surge from the sound side breached the west dike of North Pond damaging the bulkhead next to the pumping station. For wildlife management, the dike breach has had significant impact, and the refuge is working hard to repair the dike.

NCDOT and other agencies are developing a long term strategy to ensure access to Hatteras Island. A Record of Decision (ROD) was signed on December 20, 2010 to permit the Bonner Bridge to be replaced. That ROD did not address a specific strategy for NC 12, but it did stipulate that a long term strategy be developed based on the findings of a coastal monitoring program and Refuge habitat and NC 12 vulnerability forecasting study funded by NCDOT.

NCDOT held public meetings on December 5 and 6 to present alternative strategies to the public. Public comments were due by December 21.

NC 12 is located on a narrow right-of-way between fragile coastal dune environment to the east and coastal marshes to the west. Both habitat types

support wildlife species critical to the purpose of the Pea Island National Wildlife Refuge.

The North Carolina Division of Coastal Management estimates that the average annual erosion rate from 1942 to 1992 of the shoreline between Oregon Inlet and Rodanthe was 22 feet per year just south of Oregon Inlet and 16 feet per year just north of Rodanthe.

The U.S. Army Corps of Engineers regulates the coastal marshes under the Section 404 of the 1972 Clean Water Act.

The old Pea Island refuge office and maintenance shop and garage of the intern residence collapsed into one of the breaches, as did the concrete shed in which supplies and equipment used for the monitoring of sea turtles were stored.

The Service had decided earlier in the spring of 2011 to demolish the buildings at Pea Island and relocate the office and intern residence off of the refuge. A storm in early 2010 had undermined the foundation of the office and shop building.



Four Breaches in the Vicinity of the Old Refuge Office and Intern Residence in August, 2011 (USFWS Photo)

## The Big Sit at Alligator River

Volunteers from the Alligator River National Wildlife Refuge participated in the 17<sup>th</sup> Annual Big Sit on October 9 during National Wildlife Refuge Week. The Big Sit is an annual, international, noncompetitive birding event hosted by Bird Watcher's Digest and founded by the New Haven, Connecticut Bird Club. The objective of The Big Sit is to count as many bird species as can be seen or heard within 24 hours from a single spot. The Alligator River participants observed 46 species from the corner of Milltail Road and Sawyer Lake Road. The most significant sighting was a pair of Lincoln's sparrows, neotropical migratory songbirds that are rarely observed on the refuge.

## Wildfest

Wildfest, an environmental education event oriented toward children and families, was held on Wednesday, October 26 at the Wright Brothers National Memorial. The large Wright Brothers Pavilion at the Memorial again provided a great location for environmental agencies and organizations to teach participants about the conservation of natural resources. New exhibitors, including the Elizabethan Gardens, the Lost Colony, and North Carolina Sea Grant provided interesting learning experiences for the students. More than 230 attendees from Dare and Hyde County schools and home-schooled children from Hyde County participated this year. Students from the First Flight High School AVID (Advancement Via Individual Determination) program served as group leaders and staffed activity tables.



Lost Colony Staff Members Teach Children a Native American Dance Based on White-tailed Deer.  
(USFWS Photo)



Paddlers on the Full Moon Canoe Tour at Wings over Water (USFWS Photo)

## Wings over Water

The Wings over Water Festival was held from November 8-13, 2011 on the national wildlife refuges and other locations throughout northeastern North Carolina. The event attracted hundreds of participants to the six-day event.

The Festival featured birding and paddling tours, trips to historic attractions and area refuges and parks, geocaching, and presentations on climate change and nature photography,

Some of the more popular new programs included: Exploring the Pine Island Audubon Sanctuary, bird Photography at Mattamuskeet National Wildlife Refuge, Beach and Dunescape Photography, Full Moon Canoe Tour Pea Island Plant Hike, Roanoke Island History Kayak Tour, Roanoke Island Full Moon Kayak Tour

Award-winning photographer, author and biologist Todd Pusser delivered this year's keynote presentation. He has traveled to more than 30 countries and into every ocean basin on earth. His photographs have appeared in hundreds of publications around the world and have been featured in prominent magazines such as BBC Wildlife, National Wildlife, National Geographic Kids, and Ocean Realm.



Participants in the Pea Island Geocache Activity at Pea Island during Wings over Water (USFWS Photo)

### **North American Association for Environmental Education**

Visitor Services Specialist Cindy Heffley represented the refuges at the 40<sup>th</sup> Annual Conference of the North American Association for Environmental Education at the Raleigh, North Carolina Convention Center from October 12-15.

Cindy gave two presentations on the programs at the conference: Teaching Stewardship of Federal Lands through Middle School Science Clubs, and Wildlife Olympics – Providing Physical Activity While Meeting State Educational Standards. The presentations conveyed the approaches to environmental education that Cindy uses in the Dare County middle schools and that Abbey Reibel uses with the Wildlife Olympics in the Dare County elementary schools and at the refuge's special events. More than 700 educators from all over the world attended the conference.

### **Coastal Wildlife Refuge Society Awards Banquet**

The Society held its Annual Awards Banquet on November 20, 2011 at Pamlico Jacks Restaurant in Nags Head to recognize volunteers for their service to the refuges. Peggy Eubanks was recognized as Volunteer of the Year. Peggy has provided more than 1500 hours of service to the refuges. She staffs the visitor center at Pea Island and leads bird walks when the regular leaders are on vacation. Peggy also takes inventory of the merchandise in the gift shop.

Other volunteers recognized at the banquet included: Bob Glennon with 3,500 hours of service, Ron Marchand with 3,000 hours, Neal Moore and Ken Wynn with 2,500 hours, Bill Akis and Peggy Eubanks with 1,500 hours, and Amy Etherington with 1,000 hours.

Each person who volunteered in 2011 received a stained glass bird suitable for hanging in a window.

### **Pea Island Office, Residence, and Resident Volunteer Pad Moving in 2012**

The Fish and Wildlife Service had decided to relocate the Pea Island office, residence, and resident volunteer pad in 2012 before Hurricane Irene. The office and shop were damaged in 2010 by a storm, and the structure was undermined by erosion. The staff relocated their office to the living room of the interns' residence. An inspection of the residence this spring had yielded problems that cannot be corrected economically.

Visitor Services Specialist Cindy Heffley will relocate to an office that is being renovated by the National Park Service near the Bodie Island Lighthouse north of Oregon Inlet while Visitor Services Specialist Abbey Reibel will be stationed in the new headquarters building in Manteo. The Fish and Wildlife Service will purchase a house in South Nags Head for intern housing. The resident volunteers will have hookups for their recreational vehicles at the Bodie Island maintenance area in South Nags Head.

The staff, interns, and resident volunteers should be moved into their new facilities by May of 2012.



A Great Blue Heron with a Freshly-Caught Fish at Alligator River National Wildlife Refuge (Tracey Rock Photo)



Fawn of a White-tailed Deer at the Alligator River National Wildlife Refuge (Tracey Rock Photo)

### **Alligator River Office and Visitor Center**

The U.S. Fish and Wildlife Service broke ground in 2010 on its 18,000-square foot office and visitor center for the Alligator River National Wildlife Refuge on U.S. Route 64 in Manteo across from the Fort Raleigh National Historic Site.

The contractor began work on the building site at the end of May. The perimeter foundation, elevator tower, and exterior walls have been completed. The estimated completion date for the building is May of 2012. The Fish and Wildlife Service has planned a ribbon-cutting ceremony for May 31.

### **Climate Stewards**

Cindy Heffley has been trained as a climate steward educator in a national program administered by the National Atmospheric and Oceanic Administration. In a pilot program, she will train students from the First Flight High School AVID (Advancement Via Individual Determination) Program to be climate stewards.

The four-year program will help students learn about climate change and how it's affecting our area. As part of that education, they will discover ways to mitigate and adapt to those changes. With the support of the Dare Education Foundation, the program will exist of in-school meetings with activities and guest speakers as well as field trips to Alligator River National Wildlife Refuge and the Outer Banks Arboretum in Kill Devil Hills.

All objectives are curriculum-based and will be able to be implemented at other high schools in the

future. Over the four years, students will participate in Project Budburst which tracks the dates on which the leaves of plants emerge, the flowers bloom, and the fruit matures.

Studies have shown that this type of Citizen Science is very helpful in tracking changes in many natural events including migration. Anyone interested in following the progress of the group is encouraged to contact Cindy so she can add you as a member of their Facebook group.

### **School Programs**

Visitor Services Specialists Cindy Heffley and Abbey Reibel conduct programs to local schools. Volunteers from the community and college interns assist them with the programs.

Cindy brings lessons to Dare County's middle school-aged children in Junior Naturalists Clubs at Manteo Middle School, First Flight Middle School, and Cape Hatteras Secondary School. Cindy can always use more volunteers to assist her. Interested parties may contact Cindy at 252-475-4180 or [Cindy\\_Heffley@fws.gov](mailto:Cindy_Heffley@fws.gov).

Abbey teaches kindergarten students in wildlife clubs at elementary schools in Manteo, Kitty Hawk, and Nags Head. Abbey expanded her program to first grades in September. She needs volunteers to assist with planning and conducting programs. Interested parties may contact Abbey at 252-475-0060, or [abbey\\_reibel@fws.gov](mailto:abbey_reibel@fws.gov).



Manteo Middle School Science Club Members Documenting "Wildlife" during a Club Meeting photo (USFWS Photo)

## Climate Change Project

The Nature Conservancy's Climate Change Adaptation Project on the Alligator River National Wildlife Refuge continues with and adjacent to the marshes and pocosins on the east side of U.S. Route 264 between Manns Harbor and Stumpy Point.

This autumn, The Nature Conservancy and refuge staff acquired the necessary permits to install earthen plugs in three small drainage ditches on the east side of the refuge. In addition, 700 linear feet of oyster reef are scheduled to be installed in several highly-eroding shorelines bordering Pamlico Sound. Work is scheduled to begin mid-December 2011. These components of the larger project will encourage sheet flow of storm water, increasing water quality in Pamlico Sound, prevent saltwater intrusion into the pocosin, and reduced erosion rates of the refuge's marshes.

Staff and volunteers also monitored numerous ecosystem indicators in the refuge, looking at changes in water quality, water flow, soil accretion and subsidence, shoreline erosion rates, estuarine fauna species richness, and seedling growth and survival after restoration.

Volunteers from Warren Wilson College helped bag oyster shells in October. This winter, staff and volunteers will continue to bag oyster shells. Bagging events are in the process of being scheduled with dates yet to be determined. Volunteers are always needed and are encouraged to contact Kate Murray at [kmurray@tnc.org](mailto:kmurray@tnc.org).

The results of the project will guide efforts in other areas of the coast to mitigate the effects of climate change, including a pilot project to reduce shoreline erosion in the vicinity of the Bell Island pier in Swanquarter National Wildlife Refuge, as well as the examination of changes to the back barrier marsh system in Pea Island National Wildlife Refuge. Information on the project can be found by visiting The Nature Conservancy's web site at [www.nature.org](http://www.nature.org) and following the links to the North Carolina Chapter home page.

## Shorebird and Waterfowl Surveys

The fall waterfowl population at Pea Island peaked at 8,877 birds on October 6. The total included 8,408 pintails and 302 black ducks. Last winter and spring's peak occurred on January 27 with 16,651 birds. That total included 5,290 redheads and 4,031 greater snow geese.

The summer shorebird migration peaked on August 4 with 4,649 birds. The peak featured 2,740 semi-palmated sandpipers and 847 sanderlings. The spring migration peaked with 14,072 birds on May 24. That peak included 10,882 semi-palmated sandpipers and 1,282 dunlins.

There were 43 endangered piping plovers counted at the refuge on July 25 at the summer peak; 9 piping plovers represented the spring peak on April 25. A pair of piping plovers did produce 3 chicks, one of which fledged.

All of the waterfowl and shorebird survey data is available at: <http://samigbird.ncusfws.org/>.

### Thank You, Volunteers

Volunteers continue to make a significant contribution to the administration of Alligator River and Pea Island National Wildlife Refuges. Volunteers from the local community staff the visitor center at Pea Island and maintain the refuge's visibility seven days a week. Resident volunteers staff the visitor center, perform maintenance on the refuges, and assist with education and interpretation programs.



A Black Bear Scratching on a Pine Tree at the Alligator River National Wildlife Refuge (Tracey Rock Photo)

## **Manteo Christmas Parade**

Refuge staff and volunteers constructed and staffed a float for the Annual Manteo Christmas Parade on December 3. The float exhibited the 'Big 6' public uses (hunting, fishing, environmental education, interpretation, wildlife observation, and wildlife photography) permitted on national wildlife refuges.



U.S. Fish and Wildlife Service Float in the 2011 Manteo Christmas Parade (USFWS Photo)

## **Spring Program Schedule**

The Fish and Wildlife Service has set the program schedule for the first quarter of 2012.

Bird walks will be conducted at the Pea Island National Wildlife Refuge on Fridays and Sundays in January, February, and March. The walks will occur in the morning from 8:00 to 9:30. Participants meet at the Pea Island Visitor Center.

Tram tours will be held on February 11 and March 11 from 9AM until noon. They will depart from the Creef Cut Trail parking lot at Alligator River National Wildlife Refuge on U.S. Route 64.

No reservations or registration is required for the spring programs.

## **Coastal Wildlife Refuge Society**

The Coastal Wildlife Refuge Society is a non-profit organization established and incorporated in 1989 by a group of local citizens to provide support for Alligator River, Pea Island, and other national wildlife refuges in eastern North Carolina.

The Society has three purposes: generate funds to support programs and activities, assist in the recruitment of volunteers, and provide a voice for the members of the Society at a local, state, and national level.

More information about the Society is on its web site at: <http://www.coastalwildliferefuge.com/>



A Tom Turkey Strutting His Stuff on the Alligator River National Wildlife Refuge (Tracey Rock Photo)

## **Tram Tours**

The U.S. Fish and Wildlife purchased an open air tram in 2010 with which to conduct tours of the refuges.

Fall tram tours were held on Saturday, October 8 and Saturday, December 10 from 9AM until noon. The themes for the tours were a Scavenger Hunt to celebrate National Wildlife Refuge Week in October and Plants in Winter on the Refuge in December. Fifty-seven participants went on the tram tours. Free tram tours are held the second Saturday of each month in the off-season except January.

## **Coastal Wildlife Refuge Society Officers**

President: Stanley Oliver  
Vice President: Joyce Bornfriend  
Secretary: Martha Howell  
Treasurer: Warren Davis

Directors: Gail Dreis, Ann Groves, Tracey Rock, Bob Glennon