Wings

Newsletter for Alligator River and Pea Island National Wildlife Refuges Vol. XV, No. 1 March, 2012

Coastal Wildlife Refuge Society Receives National Friends Group Award

The National Wildlife Refuge Association and the National Fish and Wildlife Foundation have chosen the Coastal Wildlife Refuge Society as their 2012 Refuge Friends Group of the Year. 'Friends Groups' assist national wildlife refuges by raising funds, recruiting and managing volunteers, and lobbying for refuge support.

The Coastal Wildlife Refuge Society had 217 volunteers who contributed 27,800 hours (13 staff years) of service to the Alligator River and Pea Island National Wildlife Refuges in 2011. That represents a significant contribution to the 33-member staff. Volunteers support to a variety of activities, including maintenance, education and interpretation, and biological monitoring.

The Society operates the Visitor Center and Gift Shop at Pea Island that raises money for refuge projects and provides a valuable resource for the public who seek an extensive selection of field guides and books of local interest.

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 on October 10. The metal bridge should last for 10 years.

On January 18, the NCDOT began a project to protect the southern end of the bridge with sheet piling and rip rap in January. The inlet had been migrating to the south ever since it had been formed and the erosion threatened the bridge.
The migration of the inlet to the south is a geological phenomenon and is the same migration that Oregon Inlet exhibited before its southern shoreline was protected by rock riprap.

The North Carolina Department of Transportation and other agencies continue to develop 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 Route 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 North Carolina Highway 12 vulnerability forecasting study funded by NCDOT.

The U.S. Fish and Wildlife 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.

Intern Residence and Riprap Protecting the Temporary Bridge in February, 2012 (Bob Glennon Photo)

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 has relocated to a trailer at the Hatteras National Seashore maintenance area in South Nags Head in March and will move to an office that is being renovated by the National Park Service near the Bodie Island Lighthouse north of Oregon Inlet in the fall. 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 Hatteras National Seashore maintenance area in South Nags Head.

Abbey Reibel and the interns and resident volunteers should be moved into their new facilities by May of 2012.

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; however, exhibits installation will not occur until June. The Fish and Wildlife Service will plann a VIP tour late June or early July, followed by a "soft opening". An Open House/Grand Opening will be held in the fall.

Climate Stewards Move to the Field

Students from the First Flight High School AVID (Advancement Via Individual Determination) Program began their training as climate stewards with some background classroom training and observation of specific plants as they emerge from winter dormancy.

The pupils will be taking notes on the dates on which the leaves of plants emerge, the flowers bloom, and the fruit matures in the Arboretum at the Baum Senior Citizen Center. During the 2012-2013 school year, they will also watch the same species of plants at the Creef Cut Trail at the Alligator River National Wildlife Refuge.

The observations are part of Project Budburst, a national effort managed by the National Ecological Observatory Network, Inc. (NEON) and the Chicago Botanical Garden.

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 and First Flight Middle Schools, and Cape Hatteras Secondary School. Cindy can always use more volunteers to assist her. Interested parties can contact Cindy at 252-475-4180 or 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.

Climate Change Project

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

This winter, Total Marine Services Inc, a contractor for The Nature Conservancy, began to install earthen plugs in three small drainage ditches on the east side of the Refuge. These ditches were remnant from past ownerships and were allowing saltwater to penetrate far into interior portions of the Refuge. Installation of these plugs will re-establish natural brackish marsh and pocosin hydrology, encouraging a more natural sheetflow across the landscape and increasing water quality in Pamlico Sound. In addition to the ditch plugs, Total Marine Services Inc also began installation of 700 linear feet of oyster reefs along several highly-eroding shorelines bordering Pamlico Sound. These reefs include both marl (limestone) reefs and oyster shell bag reefs (i.e. shell bagged by volunteers). These reefs are designed to restore native oyster habitat for oysters and associated fauna and reduced erosion rates of the Refuge's marshes.

Staff from The Nature Conservancy and interns 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. One noteworthy finding was the success of previously establish marl and oyster shell bag reefs at the end of Point Peter Road. Monitoring indicated incredible recruitment of oysters with over 500 live oysters per square meter.

This winter, The Nature Conservancy will continue to work with volunteers to bag oyster shell for current and future projects around the region. Volunteers are always needed and are encouraged to contact Kate Murray at kmurray@tnc.org or (252) 441-2525 to coordinate event dates.

The results of the project will guide efforts in other areas of the coast, including a 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 going to The Nature Conservancy's web site at www.nature.org and following the links to the North Carolina Chapter home page.

Participants in the Geocaching Program at Pea Island during Wings over Water (USFWS Photo)

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/

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.

Spring and Summer Program Schedule

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

The staff has posted the schedule at: http://www.fws.gov/alligatorriver/Images/InterpretivePrograms.pdf

Bird walks will be conducted at the Pea Island National Wildlife Refuge on Thursdays, Fridays, and Sundays in April and on Wednesday, Thursday, and Friday mornings May through October. The walks take place from 8:00 to 9:30. Participants meet at the Pea Island Visitor Center.

The Pea Island Canoe Tours will be held from June through September on Thursday mornings from 9 to noon. Family canoe tours designed for children will occur from June through August on Wednesday and Friday mornings from 10 to noon.

The Alligator River canoe tours will be conducted from June through August on Wednesday and Friday mornings from 9 to noon and a new two-hour family tour on Thursday mornings from 10 to noon.

Reservations and a fee are required for the canoe tours. Call 252-216-9464 to make reservations.

From June through August, the Pea Island schedule also features: Turtle Talk on Tuesdays from 2:30 to 3:30, Birds and Their Adaptations on Wednesdays from 2:30 to 3:30, and Soundside Adventure on Thursdays from 2:30 to 3:30. Turtle Talk and Birds and Their Adaptation meet at the Pea Island Visitor Center. Soundside Adventure meets at New Inlet 3 miles south of the Visitor Center.

From June through August, staff and volunteers will lead Alligator River tram tours on Tuesday mornings from 8:30 to 10:30. Alligator River will host two wildlife programs on Wednesday evenings: Bear Necessities from 5:30 to 7:00 and Red Wolf Howling Safari from 7:30 to 9:00. The tram tours and wildlife programs will depart from the Creef Cut Trail Parking Lot at the intersection of Milltail Road and U.S. Route 64.

Reservations and a fee are required for the Tuesday tram tours and the howlings. Call 252-216-9464 to make reservations.

Tram tours will be held on April 14 and May 12 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 Saturday tram tours.

Refuge Volunteer Bob Glennon Conducting a Program on Coastal Dune Plants at Pea Island during Wings over Water (USFWS Photo)

Tram Tours

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

A winter tram tour was held on Saturday, March 10 from 9AM until noon. Thirty-nine participants went on the tram tour. The tour celebrated the anniversary of the establishment of the Alligator River refuge. The February tour had to be cancelled due to high winds.

Free tram tours will be held on April 14 and May 12 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.

From June through August, staff and volunteers will lead Alligator River tram tours on Tuesday mornings from 8:30 to 10:30. Reservations and a fee are required for the Tuesday tram tours. Call 252-216-9464 to make reservations.

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

Who Does What on the Refuges?

Most visitors to the refuges probably encounter the volunteers who staff the visitor center, lead bird walks a canoe tours, teach classes, or interpret the wildlife and habitats. They may meet a visitor services specialist conducting a program or coordinating an event. However, behind the scenes, there are 33 staff members who make the decisions, administer the $4 million budget, collect biological data, manage the habitat, and maintain the facilities on the refuges. Here are summaries of what many of them do:

Mike Bryant is the Project Leader who manages Alligator River and Pea Island refuges and supervises the managers of the Pocosin Lakes, Mackay Island, Currituck, and Roanoke River National Wildlife Refuges and the Leader of the Rd Wolf Recovery Team. Scott Lanier is the deputy refuge manager for Alligator River and Pea Island.

Dennis Stewart is the Supervisory Wildlife Biologist who manages his staff biologist and prepares and reviews plans and environmental documents for everything that affects the wildlife and habitats on the refuges. Biologist Kris Fair conducts surveys on the refuges and works with the turtle volunteers who monitor turtle nesting and hatching. Biologist Brian Van Druten maintains the refuge's geographic information system and prepares maps

Tom Crews is the District Fire Management Officer who supervises the fire staff and plans prescribed burns and preparations for wildfire control. Kelly Van Druten is the Wildland Urban Interface Specialist who develops fire management plans and works with the Firewise Program. Bert Plante is the refuge Prescribed Fire Specialist.

Bonnie Strawser is the Supervisory Visitor Services Specialist who manages her staff and handles publicity for the refuges. Cindy Heffley conducts education and interpretive programs on the refuge and in middle schools. Abbey Reibel manages the Visitor Center and volunteers and conduct programs in kindergarten classes in Dare County.

Bruce Creef supervises the crew that maintains the refuges. Alligator River had 100 miles of roads and dozens of water control structures and signs and information kiosks that require constant attention

Some employees stationed at the refuge serve many refuges. Pam Wingrove is the natural resource planner serving all of the refuges in northeastern North Carolina. Becky Bartel is an inventory and monitoring biologist with the regional office in Atlanta assigned to the refuge.

David Rabon leads the Red Wolf Recovery Team that tracks the wolves throughout a five-county area on public and private lands. The biologists on the team check the adult wolves and their offspring for their general health and the range they occupy.

The faces you see as you enter the refuge office and the voices that answer the phone are most likely Refuge Clerk Adam Fauth and Budget and Finance Officer Kathy Whidbee. Adam manages the refuge web site and handles registration for canoe tours, red wolf howlings, and Wings over Water. Kathy manages the budget, contracts, and personnel on the refuges.

Alligator River NWR Administrative Staff (left to right): Bonnie Strawser, Brian Van Druten, Kathy Whidbee, Jay Eddy, Adam Fauth, Scott Lanier, Mike Bryant, Dennis Stewart

Refuge Plants in the Winter

Most of us think about plants in the refuge as the things that leaf out in the spring, flower sometime during the year, and make seed or fruit for wildlife. However, many plants have critical roles to play during the winter on both Pea Island and Alligator River Refuges.

Both refuges feature many densely branched evergreen plants that provide thermal cover for songbirds to protect them from cold breezes and overhead cover for small ground-dwelling mammals such as rabbits. Eastern red cedar, wax myrtle, and yaupon holly all provide those important functions.

Both refuges also provide sites for a number of species of vines that serve as escape cover from predators. Virginia creeper, greenbrier, grapes, and poison ivy all climb up trees and shrubs and create protective tangles of vegetation. The thorns of some greenbrier species are also armed cover.

At Alligator River, there are many more species of evergreen trees and shrubs. Atlantic white cedar is a tree uniquely adapted to the swamps of organic soils that produces a canopy of vegetation as dense as eastern red cedar does on well-drained soil. The pocosins at Alligator River are also home to a number of broadleaf evergreen shrubs such as redbay, swamp red bay, inkberry holly, gallberry holly, coastal doghobble, and fetterbush Lyonia. These plants resemble other common ericaceous (acid-loving) plants such as rhododendron, mountain laurel, and azalea.

Each refuge also has plants that retain their fruit until winter comes and wildlife is desperate for food. The fruit of these species is not highly palatable when it first ripens. It persists until wildlife needs it. The lavender berries of wax myrtle are relished by songbirds, especially yellow-rumped warblers that used to be called myrtle warblers. Beautyberry also bears lavender berries that attract flocks of birds when other sources of food are scarce.

Sumac retains its clusters of black berries until songbirds pick them off the stems. The berries are high in vitamin C and taste like citrus. The fluffy seeds of goldenrod hang on the plants through the winter and songbirds can been seen throughout the season picking them off.

Poison Ivy Berries in a Live Oak Tree at the Pea Island National Wildlife Refuge on February 26, 2012 (Bob Glennon Photo)

Refuge Employee Selected as Conservation Communicator of the Year

The North Carolina Chapter of the Soil and Water Conservation Society selected Fish and Wildlife Service employee Cindy Heffley as its conservation Communicator of the Year.

Cindy has facilitated improved quality and increased participation in refuge education, interpretation, and outreach programs.

The Soil and Water Conservation Society is a professional organization dedicated to the promotion and implementation of practices to conserve soil, water, and related natural resources.

Bob Glennon Presenting Cindy Heffley with the Soil and Water Conservation Society's Conservation Communicator Award (SWCS Photo)

Bald Eagles at Alligator River (Tracey Rock Photo)

Pains Bay Fire Recovery

The areas burned by the Pains Bay Fire are regenerating. The fire occurred in early late spring until early summer which allowed ample time for vegetation to begin regrowing immediately after the fire passed. The mild weather in September and October allowed for the re-growth to take place for a longer period into the fall season than in an average year.

This regrowth is occurring everywhere, but the changes in vegetative structure and species composition is what will be noticed at first. In areas where the fire burned with the most severity (burning deeper into the organic soil), the ecosystem change is obvious on the micro and macro levels as bogs regenerate where there was low pocosin, and shrub and pond pine forests regenerate where there was high pocosin.

The fire brings some welcome diversity into the Low Pocosin along U.S. Highway 264, cleaned up the understory in some pond pine stands at Long Shoal River along Pamlico Road and the southern portions along Highway 264 where the fire burned with much less severity. Marshes are all regenerated and it is hard to see where the fire burned now.

Along the north side of Highway 264 and in the more northern half to third of the fire (primarily on the Bombing Range property) where the fire burned into Pond Pine stands and burned out the peat around the roots, much of the forest is dead now. These trees will be falling down over the next 3 to 5 years and it will be interesting to see if the forest seeds back to pond pine or regenerates to brush and grasses and especially if we get another fire that sets things back yet again.

Much of this area received a heavy dose of salt water from the pumping operations that occurred to suppress the fire. Also, areas along the Highway 264 Canal, Stumpy Point Bay, and the other canal systems received a second heavy dose of salt water during the flooding from Hurricane Irene. Irene also dropped around 7 inches of fresh water along the entire fire but, since the hurricane, the area has only received about a third to a half of the usual seasonal rainfall.

Needless to say, the affected forested areas are in dire conditions from the fire, fire suppression flooding, the hurricane flooding, and the extended drought. In fact, there is concern about the health in the forests that were not affected by the fire that we have suspended all prescribed burning operations in the forests this year as a result.

Ecologically, there has likely been more disturbance to this area in one year than there has been in the preceding 50 years and especially since the 1957 Dare County Fire. It will be interesting to see the effects of last year's events on wildlife habitat in the marshes and forested wetlands across the landscape where the Pains Bay Fire occurred.

Contributed by Tom Crews,
District Fire Management Officer

Shells on Newly Accumulated Wind-blown Sand at the Inlet Created by Hurricane Irene at the Pea Island National Wildlife Refuge on February 26, 2012 (Bob Glennon Photo)