



National Wildlife Refuge System

Northeast Region – 2011 Report



Blackwater National Wildlife Refuge (Md.) acquired 825 acres of land along the Nanticoke River Watershed. For nearly 20 years, the Service, in partnership with state agencies and other organizations, has been working to conserve lands along the Nanticoke, which is one of the least developed watersheds in the Chesapeake Bay region.

Regional Profile

Operations budget:	\$41,724,548
One-year project funding:	\$12,234,641
Fire funding:	\$ 3,266,078
Realty funding:	\$ 2,497,936
Full-time staff:	377
Visitors:	5,900,000
Friends groups:	54
Volunteers:	7,000
Volunteer hours:	228,000

The U.S. Fish and Wildlife Service (Service) manages 72 national wildlife refuges within its 13-state Northeast Region. Spanning from Maine to Virginia, refuge lands protect vital and significant habitats for migratory birds, threatened and endangered species, and other wildlife.

National wildlife refuges are places where people can get outside and connect with nature. They can hunt, fish, and learn about the value of the National Wildlife Refuge System for both wildlife and people.

We celebrated many accomplishments in 2011. Learn more in this annual report about the work we've done this year to uphold the agency's mission, practice sound science to make strategic management decisions, serve as stewards of resources in our trust, cultivate future leaders, and connect people with the outdoors. We also faced some challenges this year, including the three-month-long fire at Great Dismal Swamp National Wildlife Refuge (Va.), and continued to address issues at several of our coastal refuges including Prime Hook National Wildlife Refuge (Del.) and Chincoteague National Wildlife Refuge (Va.).

Visit our website at <http://www.fws.gov/northeast/refuges>.

Upholding Our Mission

The mission of the National Wildlife Refuge System is “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.” In 2011, we continued to protect lands for wildlife and serve the public.

From the Chief

There’s no place like home!!

I started my career 22 years ago in the Northeast Region and I am really excited to be back! Not only is this region my home, but I’m lucky to be joining an outstanding team - our “refuge family” here in the Northeast. The work we do here is important – managing a network of lands to support wildlife for the benefit of the American people. We strive for excellence, using the best science and engaging with states, partners and other Service programs. I’ve had a chance to visit several of our refuges, and I am inspired by the talent, creativity, and passion our employees, friends groups, volunteers, and partners bring to our collective efforts that make our refuges true jewels of conservation on the landscape.

My childhood was spent exploring the outdoors. I didn’t leave a log or stone unturned in my pursuit of finding critters that might be discovered. Our wildlife refuges provide countless opportunities for people to strengthen these same intrinsic connections we all have with nature. Refuges in our region encompass a vast variety of habitats, from the dense forests of Maine to the sandy beaches of Virginia. These lands are not only critical for wildlife, they provide excellent opportunities to tell our story to the American people. Nearly 6 million visitors enjoyed our refuges in the Northeast region this year. Our close proximity to some of the nation’s largest metropolitan areas provides us with an excellent opportunity to connect the conservation work we do in the National Wildlife Refuge System with people. While protecting habitat for wildlife, we provide environmental education and wildlife-dependent recreation activities that help to stimulate the minds and inspire the hearts of others to leave a legacy of abundant and healthy wild lands for future generations to enjoy. Our refuges also provide substantial economic benefits to local communities. In fact, a recent study commissioned by the National Fish and Wildlife Foundation conservatively estimates that the combined impact of all outdoor recreation, natural resources conservation, and historic preservation in America results in \$1.6 trillion of total economic activity. The same study showed that the total value of ecosystem services provided by the Refuge System as a whole is \$32.2 billion per year.

To be successful, we need to do the right things in the right places. From “saving dirt” to investing in infrastructure, our work is strategic, and guided by sound planning. Comprehensive conservation plans (CCPs) were completed for five national wildlife refuges in the Northeast this year bringing our total CCPs completed to 47. Our CCPs serve as blueprints for important work yet to come, and we, as a Refuge System, are working on implementing our vision. This year, the Northeast Region continued to use and practice sound science to strategically grow and manage the Refuge System. We invested in youth programs, employing 324 young adults to nurture future conservation leaders. We also invested in facilities and infrastructure that will help us better serve the American public as we continue to be conservation stewards for the future generations of Americans.

Our mission is important, and I look forward to working with all of you in this year to come, managing our wildlife refuges for the critters we care about, and moving the needle of conservation for the benefit of the American people. Learn about the National Wildlife Refuge System’s plan to address the changing landscape of conservation in the special section that follows.

- Scott

A new vision for the Refuge System

In July, 80 Service employees from the Northeast Region participated in the *Conserving the Future: Wildlife Refuges and the Next Generation* conference in Madison, Wis., which discussed the National Wildlife Refuge System's plan to address the changing landscape of conservation.

The 21st century strategic vision for the Refuge System acknowledges the broad social, political and economic changes that have made habitat conservation more challenging since the agency last set comprehensive goals in 1999. As the nation's population has grown larger and more diverse and the landscape for conservation has changed, the Service launched an online conversation about conservation in the fall of 2010 to distill the new Refuge System vision. Final recommendations incorporate suggestions from the public, non-government organizations, state wildlife agencies, and employees of the Service.

To implement the new vision, nine implementation teams have been established: urban wildlife refuges; strategic growth; the leadership development council; planning; science; community partnerships; communications; hunting, fishing, and outdoor recreation; and interpretation and education. Implementation is expected to be largely complete in about five years.



The Northeast Region participated in the Conserving the Future: Wildlife Refuges and the Next Generation conference to help initiate the Refuge System vision.



Completed visitor contact station at Edwin B. Forsythe National Wildlife Refuge (N.J.).

Recovery Act funds “green” improvements

Funds we received in 2009 from the American Recovery and Reinvestment Act (ARRA) helped complete the construction of visitor centers and improve energy efficiency in Service facilities. These projects created hundreds of jobs and income for communities near national wildlife refuges.

- ARRA funded exhibits at Assabet River National Wildlife Refuge (Mass.) The visitor facility was recognized for the 2011 Federal Energy and Water Management Award for sustainable design. The building’s “green” features prevent 13.1 metric tons of greenhouse gas emissions from being released and conserve 3,000 gallons of water each year.
- The Eastern Shore of Virginia National Wildlife Refuge replaced the heating and cooling pumps in their visitor center with a new geothermal heating and cooling system. The refuge also installed new foyers to the front and rear entrances of their visitor center, which form a barrier to keep wind-driven rains from entering the building.
- The new administration and visitor facility at the Long Island National Wildlife Refuge Complex (N.Y.) was built to LEED Gold certification standards. It features a geothermal heating and cooling system, recycled content building materials, and solar-powered electricity.
- We installed solar panels at the Silvio O. Conte National Fish and Wildlife Refuge (Mass.) headquarters.



Solar panels on the new administration and visitor facility at the Long Island National Wildlife Refuge Complex will reduce the facility’s power consumption.

Providing access to our lands

Promoting alternative transportation use and reducing greenhouse gas emissions are important goals of the Refuge System. In 2011, the transportation program continued to strive for improved transportation facilities for vehicles, bicycles, pedestrians, kayakers, and other refuge visitors. The program worked to identify ways that efforts could better conserve and enhance fish, wildlife, and plant resources and their habitats. Projects completed in 2011 include an entrance road reconstruction and bike lane at Back Bay National Wildlife Refuge (Va.), rehabilitation of a road and nine parking lots at Iroquois National Wildlife Refuge (N.Y.), and rehabilitation of the auto tour route at Bombay Hook National Wildlife Refuge (Del.).

Responding to Hurricane Irene

This August, refuges in the Northeast were impacted by Hurricane Irene. The storm caused Service facility closures throughout the region and damages to refuge property. While a majority of refuges in the region were fortunate to recover successfully from the damage, other Service properties were heavily impacted by the storm.

Great Swamp National Wildlife Refuge (N.J.) and Wallkill River National Wildlife Refuge (N.J.) were closed for several days after Hurricane Irene. Some roads and dikes were under three feet of water and footbridges and dams were washed out.

The National Wildlife Refuge System loaned equipment to White River National Fish Hatchery to aid in clean-up from the storm. Heavy equipment operators from refuges throughout the Northeast also assisted in removing about 17 million pounds of mud from the hatchery.



Several roads at Great Swamp National Wildlife Refuge (N.J.) were inundated after Hurricane Irene.

Students and volunteers planted 2,500 native red spruce seedlings at Canaan Valley National Wildlife Refuge (W. Va.) to reduce forest fragmentation, increase tree canopy cover, and improve habitat for federally threatened species, the cheat mountain salamander and West Virginia northern flying squirrel.



Grateful for our refuge friends and volunteers

We have 54 refuge friends groups in the region who volunteer their time and energy to help support and advocate for our refuges. Friends groups supported visitor services by hosting numerous environmental education and interpretive programs.

The Friends of Assabet National Wildlife Refuge (Mass.) raised money to find an efficient way to map refuge lands for invasive plants. Forty volunteers spent more than 1,300 hours treating 192 acres of invasive plants at the Eastern Massachusetts National Wildlife Refuge Complex thanks to the money raised by the refuges' friends group.

In addition to the contributions of our refuge friends groups, 7,000 volunteers donated 228,000 hours to conservation at refuges in the Northeast. Volunteers helped to pull invasive species, assisted with outreach activities, and helped with day-to-day operations at our offices and visitor centers. For example:

- Spectra Energy volunteers helped to clear downed trees and improved trails at Sunhaze Meadows National Wildlife Refuge (Maine).
- Volunteers at Monomoy National Wildlife Refuge (Mass.) researched the location for a temporary banding station at the South Monomoy Lighthouse to capture and band songbirds to begin to study the extent that these birds use the refuge during fall migration.
- About 40 Americorps National Civilian Community Corps firefighters helped manage habitat and fight wildfires this year, serving national wildlife refuges and their partners in Virginia, Maryland and North Carolina, amounting to \$72,000 in salary savings.
- An Eagle Scout and students at the Tucker County High School built a new kiosk at the visitor contact station at Canaan Valley National Wildlife Refuge. (W. Va.)

Recognizing exceptional public service

This year, several individuals were recognized for their outstanding public contributions to the National Wildlife Refuge System.

Cyrus Brame, an outdoor recreation planner at Eastern Virginia Rivers National Wildlife Refuge Complex, won the Department of the Interior Sustainable Hero Environmental Achievement Award for demonstrating environmental leadership. Brame created the James River Excess to Asset Program, which collected thousands of pounds of debris from refuge lands, sold the debris to local scrap yards, and used the revenue to promote the refuge's recycling program.

Frank Drazszewski, deputy refuge manager of Parker River National Wildlife Refuge (Mass.), received honorable mention in the Sustainable Hero category of the Interior Department's Environmental Achievement Award for his work overseeing the region's largest refuge facility photovoltaic installation.

Stephanie Koch, wildlife biologist at the Eastern Massachusetts National Wildlife Refuge Complex won the Service's Science Leadership Award for her oversight of the biological and habitat management activities of the eight refuges that make up the complex.



Cyrus Brame's James River Excess to Asset program has repurposed more than 23,000 pounds of debris.

Sound Science, Strategic Decisions

We work with conservation partners to make sure we are making the best biological decisions for wildlife and people on our refuge lands. We increased our inventory and monitoring projects, continued to plan for the future of our refuges, and implemented biological projects to benefit species on our lands. The work of refuge biologists is an integral part of our efforts to uphold the Service's mission.

Managing in a changing climate and planning for sea level rise

In collaboration with the National Park Service and Rutgers University, nine coastal refuges are conducting long-term inventory and monitoring of their shorelines. This program will provide information about responding to the rate of shoreline change on our refuges. It will also help us understand the changes due to sea level rise, more frequent and intense storms, and additional threats such as urbanization and adjacent beach nourishment projects. In addition, monuments are being established at three to six coastal refuges to monitor beach and dune elevation changes in areas of management concern.

We partnered with the U.S. Geological Survey to complete the pilot phase of a salt marsh integrity study. The study's results will be applied to a long-term monitoring program for all coastal refuges in the region. In 2011, sediment elevation tables and water loggers were purchased to begin collecting salt marsh data at each coastal refuge. Monitoring results will be used to rank the ecological integrity of salt marsh units, provide a monitoring method that measures salt marsh health over time, prioritize salt marsh sites for restoration, and monitor the effectiveness of restoration activities.

Vulnerability assessments were started to show how Parker River National Wildlife Refuge (Mass.) and Eastern Shore of Virginia National Wildlife Refuge could be impacted by climate change.



We continue to monitor sea level rise to make strategic management decisions.

Controlling invasive species

Silvio O. Conte National Fish and Wildlife Refuge (Mass.) was one of four refuges in the country selected to participate in an invasive species pilot program. The information collected during the program will establish national program guidelines for the National Wildlife Refuge System's invasive plant inventory and monitoring. Findings will allow refuges to adaptively manage invasive plants and the surrounding landscapes in which they occur. During 2011, we managed invasive species and restored native plant communities on nearly 1,000 acres of refuge lands region-wide.

We continued our efforts to control non-native plants and animals. Refuge biologists helped to create a conceptual framework for managing common reed (*Phragmites australis*), which overruns wetlands when not controlled. The framework provides models to help managers predict the best and most economical way to control *Phragmites* at a specific site.

Volunteers and interns at John Heinz National Wildlife Refuge at Tinicum (Penn.) pull invasive species such as Phragmites, wisteria, oriental bittersweet, and Japanese stiltgrass to improve wildlife habitat.



Planning for our future

The National Wildlife Refuge Improvement Act of 1997 requires the Service to write a comprehensive conservation plan (CCP) for each national wildlife refuge. A CCP is a 15-year strategic plan establishing management direction for refuge programs.

We have completed CCPs for most of our refuges and are actively engaged in those that remain. This year, we completed five plans: Supawna Meadows National Wildlife Refuge (N.J.), Canaan Valley National Wildlife Refuge (W. Va.), Mason Neck National Wildlife Refuge (Va.), Featherstone National Wildlife Refuge (Va.) and Iroquois National Wildlife Refuge (N.Y.)

Throughout the CCP process, we collaborate with the public and our partners to identify issues and concerns, and seek solutions. For example, after considering public input, we opened Featherstone National Wildlife Refuge to public access for the first time since its establishment. Public and partner involvement will continue to be critical for the successful implementation of each plan.

A particular highlight for refuge planning was receiving the Service's 2011 National Outstanding Plan Award for the Canaan Valley National Wildlife Refuge (W. Va.) CCP. This competitive award was based on criteria for quality, teamwork, public participation, presentation, and problem solving. Stakeholder involvement through surveys, interviews, and public meetings was key to addressing habitat management and visitor access issues on the refuge.

Expanding our scientific foundation

This year, we monitored migrating and wintering waterbirds as part of the Service's integrated waterbird management and monitoring (IWMM) project. Biologists conducted waterbird counts and collected habitat data at 16 refuges and 40 wetlands in the Northeast Region.

Edwin B. Forsythe National Wildlife Refuge (N.J.) has led the effort to greatly expand the IWMM surveys in the Northeast Region. Long-standing volunteers have gathered IWMM survey data at the refuge's two major impoundment sites. Additionally, refuge staff have engaged state and private partners in New Jersey and Delaware to establish a network of IWMM sites. This collaborative effort will drastically improve the information we now have on waterbird use of important habitats.

We also continued our participation in the Refuge System's inventory and monitoring (I&M) program. Some notable projects include:

- Nine refuges in the Northeast Region participated in the vernal pool amphibian monitoring, which assessed amphibian population at the participating sites and identified priority areas for habitat management.
- Four refuges participated in a migrating landbird and shrubland restoration adaptive management study to investigate where the most important stopover areas are in the Northeast for migratory birds. The information will allow us to provide high quality stopover habitat and develop protocols for the habitat management of critical areas.

Notable biological projects

We participated in several refuge-specific projects, including:

- At Maine Coastal Islands National Wildlife Refuge, in consultation with the regional Migratory Bird program, greater shearwaters were tagged to track the migratory pathways and activities of pelagic seabirds in the Gulf of Maine. This project will help determine how climate change or offshore development might influence pelagic species.
- John Heinz National Wildlife Refuge at Tinicum (Penn.) installed a bird-safe glass in a portion of the observation area at the refuge visitor center, in partnership with the Delaware Valley Ornithological Club, Audubon PA, the Philadelphia Zoo and the Friends of Heinz Refuge.



The inventory and monitoring program funded some habitat use research and white-nose syndrome monitoring in bats.



A juvenile red knot is tagged at Monomoy National Wildlife Refuge (Mass.) to track its location during the winter, which will help monitor migration patterns.

Resource Stewardship

This year we continued to manage our fire program, acquire important lands for wildlife, protect imperiled species, and enforce wildlife laws.

Managing fire

The largest and most expensive (over \$12.5 million) wildfire ever on refuge lands in the Northeast Region burned in 2011 at Great Dismal Swamp National Wildlife Refuge (Va.). From the time it was ignited by lightning in August until it was extinguished in November, the Lateral West Fire consumed 6,574 acres. In addition to causing health and safety concerns for the populated Hampton Roads area, the fire set back efforts to restore Atlantic white cedars and limited visitor access to the refuge.

While our region only endured one large wildfire, 46 of our staff responded to 25 different wildfires in 10 states this year, most in the drought-stricken South. These responders included refuge managers, wildlife biologists, foresters, law enforcement officers, administrative officers, maintenance workers, and equipment operators.

To help protect refuges from wildfire and maintain habitat for wildlife, we conduct controlled burns. This year our controlled burns benefitted roseate terns, bald eagles, and red-cockaded woodpeckers. We completed the first controlled burn at the National Conservation Training Center (W. Va.) as the first step in restoring 430 acres of native wildlife habitat.

The Nature Conservancy's Maryland/D.C. chapter commended our firefighters from Blackwater National Wildlife Refuge (Md.) for assisting them with 350 acres of controlled burns at their preserves to restore critical habitat for several rare and endangered species of plants.



The Lateral West Fire at Great Dismal Swamp National Wildlife Refuge (Va.) was fueled by grasses, brush, and downed trees and continued to burn even after Hurricane Irene doused the area with a foot of rain.

Protecting key lands for wildlife

Protecting land and habitat for fish and wildlife is an important part of the Refuge System mission. In 2011, we acquired 7,300 acres of land on 17 national wildlife refuges.

The Service acquired 3,391 acres of land at Umbagog National Wildlife Refuge (Maine and N.H.) in the Northern Forest as a part of the Androscoggin Headwaters – Plum Creek conservation project. The project promotes the protection of working forests and important areas for loons, black ducks, osprey and other migratory birds. The project is a partnership among the Service, New Hampshire Department of Fish and Game, and Plum Creek Timber, and aims to protect more than 8,000 acres of sensitive habitat in New Hampshire.

Other important acquisitions include:

- The Silvio O. Conte National Fish and Wildlife Refuge (Mass.), which encompasses the entire Connecticut River watershed, acquired 907 acres in 2011. The Connecticut River was identified by three states, Connecticut, Massachusetts and Vermont, as being a critical centerpiece of the America's Great Outdoors initiative.
- Blackwater National Wildlife Refuge (Md.) has been recognized as one of the Chesapeake Bay's most important conservation areas. In 2011, the Service added 596 acres to the refuge on a high ridge near the southern end of the refuge; the acquired tracts will be essential for climate change adaptation.



325 acres were added to Canaan Valley National Wildlife Refuge (W. Va.), securing a significant ecological corridor with the Monongahela National Forest and establishing a critical link in the Heart of the Highlands Trail.

Protecting threatened and endangered species

This year, we implemented over 200 activities to help recover threatened and endangered species on national wildlife refuges. Examples of these activities include replenishing streamside habitat to benefit aquatic species and restoring coastal wetland and marine areas to benefit the federally endangered piping plover.

We completed projects resulting in the restoration of 468 stream and river miles and 198,541 acres of land on national wildlife refuges, and improved populations of 64 indicator species. Some examples include:

- The Rhode Island National Wildlife Refuge Complex constructed the New England cottontail acclimation pen on Ninigret National Wildlife Refuge. The pen is designed to provide captive-bred young New England cottontails with a safe environment to learn how to forage on native plants, escape predators, and seek shelter from the elements.
- Assabet River National Wildlife Refuge (Mass.) converted a World War II bunker to a potential winter bat hibernacula to try to reduce the impacts of white-nose syndrome by providing fungus-free hibernacula in a white-nose affected area.



Bristol County Agricultural School sophomores partnered with species experts at the Eastern Massachusetts National Wildlife Refuge Complex to raise Blanding's turtles and release them into wetland habitat.

Upholding wildlife laws

The region's 34 refuge law enforcement officers carry out laws to protect both the natural resources and public safety on national wildlife refuges. Program highlights of 2011 include:

- The region's Special Operations Response Team responded to a request to provide additional law enforcement on the Texas – Mexico border. Five officers responded, making numerous cases on illegal entry, drug interdiction, and increasing public safety and natural resource protection to the South Texas National Wildlife Refuge Complex. Additionally, three members provided additional law enforcement to Chincoteague National Wildlife Refuge immediately following Hurricane Irene.
- The Northeast Region field training officers, zone officers, and chief coordinated a seminar training to certify all those involved in the regional field training evaluation program, making the Northeast the only region fully certified.
- This year, zone officers coordinated five task forces at various refuges for waterfowl hunting enforcement, snowmobile access enforcement, and addressing public safety issues.
- In 2011, we continued to strengthen our collaboration with the Service's Office of Law Enforcement, including plans to co-locate refuge law enforcement officers with Service special agents at larger refuge facilities in the region.

Safeguarding cultural resources

In addition to protecting wildlife and people, we protect cultural resources on our national wildlife refuges and use them to enhance the visitor experience.

Great Dismal Swamp National Wildlife Refuge (Va.) completed a new Underground Railroad Network to Freedom interpretive pavilion with the assistance of American University Professor Dan Sayers. Sayers and his field staff have conducted archaeological studies at Great Dismal Swamp since 2003.

Surveys enabled redesign of building and trail construction to avoid damaging newly discovered archaeological sites at Ninigret National Wildlife Refuge (R.I.), Presquile National Wildlife Refuge (Va.), Wertheim National Wildlife Refuge (N.Y.) and Elizabeth Hartwell Mason Neck National Wildlife Refuge (Va.)

Assabet River National Wildlife Refuge (Mass.) mitigated damage to two important prehistoric archaeological sites. Information was recovered from archaeological excavations in affected areas prior to road and trail improvements for a new visitor center. The final report and artifacts are resources for further study and interpretation of 8,000 years of American Indian settlement on the refuge.



Recovering archaeological information at Assabet River National Wildlife Refuge (Mass.)

Cultivating Future Conservationists

The National Wildlife Refuge System in the Northeast Region continues its diligent efforts to engage, educate, and employ diverse groups of young people in the field of natural resources. In 2011, we employed 324 young adults between the ages of 15 and 25. Our job programs for youth include the Youth Conservation Corps (YCC), Career Discovery Internship Program (CDIP), Student Temporary Employment Program (STEP), and Student Career Experience Program (SCEP). All these programs directly support and align with the Department's Youth in the Great Outdoors program and the President's America's Great Outdoors Initiative.

In 2011, 135 students, ages 15 to 18, participated in our YCC program. YCC crews throughout the region assisted in refuge activities such as controlling invasive species, conducting wildlife surveys, maintaining trails, and participating in environmental education programs.

We employed 43 STEP and 10 SCEP students between the ages of 15 and 25 at national wildlife refuges and the regional office.



The YCC program offers high school students field experience in wildlife conservation. This crew is constructing a boardwalk on the Riverside Trail at Oxbow National Wildlife (Mass.)

Now in its fourth year, we continued the CDIP program in partnership with the Student Conservation Association. The program targets freshman and sophomore college students from culturally and ethnically diverse backgrounds to work for the Service for a 12-week learning and training experience. Participants spent the summer working in a wide variety of Service programs on a broad range of projects, from biological monitoring and habitat restoration to maintenance and recreational public use programs. The program's success in the region led to other regions to adopt it in 2011. A third region will participate in 2012. Thirty-three Northeast Region field stations hosted CDIP interns and 24 students participated in the Midwest and Southeast regions. To view student projects, please visit: <http://www.fws.gov/northeast/youth/cip.html>.

Some highlights of our other youth programs on national wildlife refuges:

- Walkkill River National Wildlife Refuge (N.J.) continued to participate in the New Jersey Youth Corps training program, which reaches out to economically disadvantaged high school students.
- After four summers of work by the Refuge's YCC crews and the Friends of Pondicherry, Silvio O. Conte National Fish and Wildlife Refuge (Mass.) opened the fully accessible Mud Pond Trail at the Pondicherry Division in New Hampshire.



Thirty-nine college students participated in the 2011 Career Discovery Internship Program on national wildlife refuges.

Connecting People with the Outdoors

In 2011, nearly six million people visited national wildlife refuges in the Northeast. This year we invested in new visitor services programs, built two new visitor centers, constructed over 20,000 feet of trails, boardwalks, bridges and piers, explored ways to reach non-traditional audiences, and provided excellent opportunities for public use activities.

Innovative visitor services programs

Montezuma National Wildlife Refuge (N.Y.) continued to operate their self-guided cell phone tours, which allow visitors to call a local number at identified stops along a walking/auto tour route to hear short messages about the refuge, including information about emergent marshes, bald eagle recovery, and the history of the Erie Canal.

The Silvio O. Conte National Fish and Wildlife Refuge's (Mass.) mobile visitor center, the Watershed on Wheels or WOW Express, traveled to 64 events and hosted 19,000 visitors and schoolchildren.

Ohio River Islands National Wildlife Refuge (W. Va.) partnered with Crooked Creek Archery to provide youth from the surrounding area with an opportunity to learn archery. Over the past two years, eight programs have been offered to over 650 young people.

Edwin B. Forsythe National Wildlife Refuge (N.J.) staff worked with the Atlantic County School Nurse Association to start "prescribing" outdoor experiences for children's health.



Silvio O. Conte National Wildlife Refuge's WOW Express travels to educate visitors about the importance of the refuge and the Connecticut River watershed.

Reaching urban audiences

With an increasingly diverse American public and a recently developed nationwide vision for refuges in urban areas, in 2011 we explored innovative ways to reach urban audiences.

- Edwin B. Forsythe National Wildlife Refuge (N.J.) partnered with two area schools to complete the Celebrate Urban Birds project. The program met every two weeks and students learned how to identify different birds based on characteristics, habitat, and food requirements.
- John Heinz National Wildlife Refuge at Tinicum (Pa.) hosted the Focus on Diversity: Changing the Face of American Birding conference with the Fledging Birders Institute. The conference featured a diverse crowd of panelists and attendees discussing ways to spread birdwatching to new audiences and breaking the barriers faced by new and minority birders.
- This year, the region began to assess quality urban environmental education programs currently provided by refuges in our region and nationally. Information gathered will provide a model program template for refuges in our region. The project will help determine the needs of refuges that are developing or would like to develop urban environmental education programs, and to identify areas where support can be provided.

Refuges and social media

Facebook, Twitter, YouTube, Flickr and blogs allow us to communicate with people in new ways. A growing number of national wildlife refuges have Facebook pages, where visitors can learn about upcoming events and wildlife activities, and may post information themselves. Researchers at the Maine Coastal Islands National Wildlife Refuge hosted a blog about their summer field studies of seabirds.

Hunting

In 2011, about 68,000 visitors hunted on refuges in the Northeast Region.

- Eastern Neck National Wildlife Refuge (Md.) hosted its second annual youth turkey hunt. Young hunters and their parents participated in a hunter safety program prior to the hunt.
- Missisquoi National Wildlife Refuge (Vt.) and Iroquois National Wildlife Refuge (N.Y.) hosted waterfowl courses for young hunters. Over 60 young hunters participated in programs about firearm safety, hunter ethics, and wildlife conservation before taking part in an actual waterfowl hunt.

Fishing

About 489,000 anglers took part in fishing this year at national wildlife refuges. Various events provided opportunities for people of all ages to go fishing.

- Patuxent Research Refuge (Md.) partnered with the Project Healing Waters fly fishing program, which hosted several combat veterans from the Walter Reed Medical Center and the Ft. Meade Warrior Transition Unit for a day of fly fishing.
- Rappahannock River Valley National Wildlife Refuge (Va.) opened Laurel Grove Pond to the public for fishing access, which is accessible by canoe, kayak, and hand-launched boats.
- Various refuges around the region hosted Take Me Fishing days, providing new anglers with an orientation to fish species and angling techniques.

Wildlife observation and photography

Refuges in our region are home to many species of wildlife. Refuges offered a variety of programs and outdoor experiences for visitors.

- Patuxent Research Refuge (Md.) hosted their third annual Birding for the Blind event in May, designed specifically for visually impaired people and their families and friends.
- Parker River National Wildlife Refuge (Mass.) hosted its first digital nature camp for 10 young adults, offering hands-on introduction to nature photography and image editing.
- The Eastern Shore of Virginia National Wildlife Refuge constructed a 2.7-mile bike trail and a replacement walkway to one of the overlooks

Environmental education

In 2011, 67,000 visitors took part in environmental education programs on our refuges.

- Students from three local high schools used Supawna Meadows National Wildlife Refuge (N.J.) for sampling aquatic organisms and analyzing mercury.
- Blackwater National Wildlife Refuge (Md.) partnered with Dorchester County public schools to present environmental education programs to fourth, fifth and sixth graders. Students had the opportunity to conduct surveys in the marsh and used GPS units to learn why it is an important component to field work in environmental science.
- Canaan Valley National Wildlife Refuge (W. Va.) held an event for 100 sixth graders, who learned archery at the refuge, heard talks about various animals that inhabit the refuge, and learned about waterfowl migration.
- More than 350 sixth-grade students in Dorchester County helped plant trees at Blackwater National Wildlife Refuge (Md.) to restore 36 acres of forested habitat.



Thousands of children learn about wildlife and the natural world at our refuge programs.

Interpretation

Environmental interpretation includes specialized programs that introduce the public to wildlife and what we do at national wildlife refuges. More than 200,000 visitors participated in interpretive activities on our refuges this year.

- Many refuges held events in celebration of National Public Lands Day and National Wildlife Refuge Week.
- Patuxent Research Refuge (Md.) celebrated its 75th anniversary in 2011; more than 1,000 people attended its annual wildlife festival.
- Great Swamp National Wildlife Refuge (N.J.) and the Friends of Great Swamp partnered with 15 local libraries in the area to display exhibits to inform people about the refuge and the Refuge System.
- Wallkill River National Wildlife Refuge (N.J.) hosted their Go Wild-Go Birding event, featuring a poster contest for youth from kindergarten to high school and hands-on activities about bird migration and bird songs.



Longstreth Elementary students help fill raised beds with soil before planting native wildflowers as part of the Friends of Heinz Native Plant Pollinator Garden at John Heinz National Wildlife Refuge at Tinicum (Penn.)

Improving our visitor services programs

The National Wildlife Refuge System held a workshop, *Keeping our Eyes on the Stars and our Feet on the Ground*, for 60 visitor services and outreach professionals to network, share ideas, and participate in professional development sessions. Topics included cutting edge programming, visitor services planning, interpreting climate change and marketing your field station in the digital age. The workshop also focused on the National Wildlife Refuge System Vision, and how its visitor services recommendations may be implemented at refuges in the region. There will be a visitor services advisory group to focus the direction of the visitor services program in the region.

In 2011, visitor services programs were reviewed at James River National Wildlife Refuge (Va.), Presquile National Wildlife Refuge (Va.), Stewart B. McKinney National Wildlife Refuge (Conn.), Cape May National Wildlife Refuge (N.J.), and Mashpee National Wildlife Refuge (Mass.) The reviews provide refuge staff with recommendations that will help improve outreach and visitor services programs at the refuge. In addition, five refuges in the region are among 50 included in a national visitor survey led by the U.S. Geological Survey. The survey will provide managers with demographics of refuge visitors and their satisfaction with services and facilities.

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There are 72 national wildlife refuge areas in the Service's 13-state Northeast Region, many of which are managed together as refuge complexes. Learn more at <http://www.fws.gov/northeast/refuges>.



“Sooner or later you are likely to meet the sign of the flying goose – the emblem of the national wildlife refuges.”

-Rachel Carson