

POTOMAC RIVER NATIONAL WILDLIFE REFUGE COMPLEX

2011 ANNUAL NARRATIVE

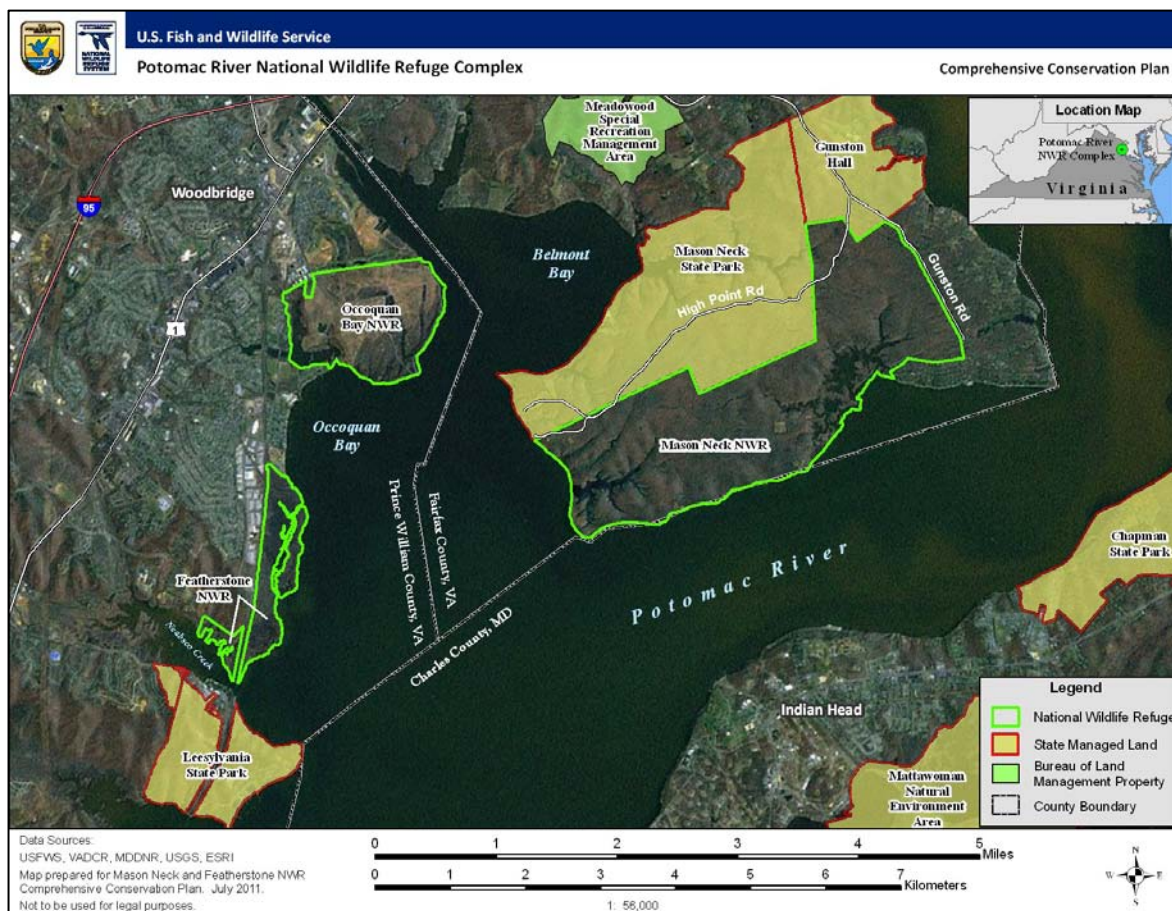


River otters at play on Marumsco Creek, Occoquan Bay National Wildlife Refuge.

INTRODUCTION

Potomac River National Wildlife Refuge Complex

Elizabeth Hartwell Mason Neck, Featherstone, and Occoquan Bay National Wildlife Refuges were combined to form the Potomac River National Wildlife Refuge Complex in 1988. The three refuges border Occoquan Bay at the junction of Fairfax and Prince William Counties, Virginia. Potomac River National Wildlife Refuge Complex (complex) provides exceptional forested, grassland, and wetland habitats for wildlife in a dynamic, highly urbanized region of Northern Virginia. The proximity of the complex to the Nation's capital provides unparalleled opportunities to demonstrate the importance of the natural world in enhancing the quality of human life and raise public awareness about the value of the National Wildlife Refuge System. Staff fosters stewardship of the tidal Potomac River and the Chesapeake Bay watershed through outreach, education, and partnerships while visitors have diverse opportunities for quality, compatible, wildlife-dependent recreation.



Elizabeth Hartwell Mason Neck National Wildlife Refuge

Elizabeth Hartwell Mason Neck National Wildlife Refuge (Mason Neck NWR) encompasses forest, marsh, and riverine habitat along Occoquan Bay and tidal Potomac River. Mason Neck

NWR was established in 1969 as the first national wildlife refuge specifically created to protect the bald eagle (*Haliaeetus leucocephalus*) using funds provided under the Endangered Species Act. Bald eagles, federally listed in 1969 and determined recovered in 2007, continues to be a focal species on the refuge. On August 14, 2006 the refuge name was officially changed to “Elizabeth Hartwell Mason Neck National Wildlife Refuge” to honor the significant contributions to conservation by Elizabeth Hartwell. Ms. Hartwell, a resident of Mason Neck and a conservation activist, spearheaded the movement to protect habitat on the Mason Neck peninsula. Mason Neck NWR has grown from 845 acres to 2,277 acres, including 789 acres leased from the Northern Virginia Regional Park Authority. Mason Neck NWR was a subunit of Blackwater NWR, based in Cambridge, Maryland. In 1974, Mason Neck NWR became an independent unit with its own manager.

Occoquan Bay National Wildlife Refuge

Occoquan Bay NWR is a 644 acre parcel on a peninsula bordered by the sandy river shoreline of Belmont Bay, Occoquan Bay and the tidal flats of Marumsco Creek. Occoquan Bay NWR is made up of two parcels formerly known as the Marumsco NWR and the Woodbridge Research Facility. Marumsco NWR had been established in 1973 when the Army exsessed the creek portion of the property. The research facility, which served as an Army communications in the 1950’a and 1960’s and a top secret research center in the 1970’s and 1980’s, closed its operations in September of 1994 under the Base Realignment and Closure Act (BRAC). The site was formally transferred to the U.S. Fish and Wildlife Service in June 1998. Recombining the two parcels with the new name Occoquan Bay gave the site more community recognition and management capability.

Occoquan Bay NWR contains a diversity of grassland and wetland plant species unusual in the heavily developed Potomac region. Its diverse habitats support a correspondingly high number of wildlife species, particularly migrant land and waterbirds and grassland nesting species. Wetland habitats cover about 50 percent of the site, and include wet meadows, bottomland hardwoods, open freshwater marsh, and tidally influenced marshes and streams. About 20 percent of the unit is upland meadows, with the remaining vegetated areas consisting of shrub and mature or second growth forest. The refuge is managed to provide early successional habitats and appropriate wildlife dependent recreational opportunities, to educate visitors on the results and benefits of habitat management for wildlife, and for the enjoyment and benefit of people.

Featherstone National Wildlife Refuge

Featherstone NWR was established in 1979 with land acquired from the District of Columbia. The refuge further expanded in 1992 with lands donated by Prince William County. The refuge encompasses 325 acres of freshwater marsh and forested riverine habitat along the southwest edge of Occoquan Bay. Its wetlands are important habitat for bald eagles, wading and waterbirds, waterfowl, and other native species of conservation concern plants in an otherwise highly urbanized setting along the tidal Potomac River.

Staff and public access to Featherstone NWR is limited. A CSX Transportation railroad runs the entire length of the refuge carrying high speed passenger and freight trains. The trains cause concern for visitor safety. Other foot and vehicle routes are along restricted roadways managed by CSX Transportation or cross through private lands. The tracks, rail berms, bridges, and rail line structures are barriers which prohibit safe access to refuge lands. Staff utilizes the Virginia Railway Express (VRE) commuter station adjacent to the refuge to cross the railroad tracks. However, VRE has not granted public access over the tracks. Public access is limited to a non-motorized boat landing on the southern edge of Farm Creek. While the refuge wanted to wait until access issues via the VRE platform were resolved before opening the refuge to the public, Congressman Connolly was insistent that the refuge be opened to the public when the CCP was finalized. Dedication of the non-motorized boat landing was held on October 8, 2011.



PERSONNEL

Project Leader	Greg Weiler
Deputy Refuge Manager	Daffny Jones -Transfer 2/25/11 to Northeast Region Office, MA
Deputy Refuge Manager	Amanda Daisey -Enter 7/31/11 from Chincoteague NWR, VA
Administrative Assistant	Stacie Allison
Maintenance Mechanic	Steve Boska
Federal Wildlife Officer	Gareth Williams
Park Ranger	Marty McClevey
STEP – Park Ranger	Patricia Wood

2011 HIGHLIGHTS

October '10 - May	- Stacie served as Administrative staff for Eastern VA Rivers NWRC in addition to Potomac River NWRC
February	- received two new laptop computers
March 14-18	- Stacie attended FBMS Conference in Atlanta, Georgia
August 23	- 5.8 magnitude earthquake shook Northern Virginia with an aftershock measuring 4.2 on the Richter scale according to the USGS.
August 27	- Hurricane Irene
September	- Tropical Storm Lee
October 6	- Complex administrative office relocated to 12638 Darby Brooke Court, Woodbridge, VA 22192
October 8	- Featherstone NWR opened to public access
October 11-12	- RO Environmental Compliance Audit

PLANNING

Mason Neck and Featherstone NWRs Comprehensive Conservation Plan

The CCP for Mason Neck and Featherstone NWRs was signed by the Regional Director, Wendy Weber, on September 1, 2011.

Occoquan Bay NWR Road and Parking Area Rehabilitation.

The refuge roads project to rehabilitate the parking areas (3), entrance road, and wildlife drive was funded and project planning was initiated. The project will resurface and place curbing at the two parking areas adjacent to the VCS. The main parking area will be resurfaced, re-lined, and have islands installed. The entrance road will be resurfaced and widened to accept an island

and entrance booth. The wildlife drive will be contoured and have material added to create a more uniform, durable non-paved surface. The project will be completed in 2012.

VISITOR SERVICES

Special Events and Programs:

- o November 6, 2010 -- Ranger McClevey conducted a tour of the Occoquan Bay and Mason Neck NWRs for three Forest Bureau Taiwanese delegates. Members of the tour included Ms. Jung-Sheng Shia, Ju-Yun Jeng and Professor Hsiao-Wei Yuan from the School of Forestry and Resource Conservation.
- o Mar 19, 2011 -- Featherstone NWR clean-up - 80 participants, 1800 lbs trash removed
- o April 10, 2011 -- Merrimac Farm Bluebell Festival- 208 contacts
- o April 19, 2011 -- Mason Neck Eagle Festival - 40 contacts
- o April 2011 -- Exxon Mobil Occoquan Bay NWR clean-up cancelled due to potential shutdown of federal government
- o May 14, 2011 -- 10th Annual Youth Fishing Event held on Occoquan Bay NWR. 63 kids participated in this event including 25 volunteers (109.5 hours) and seven staff members. Marumsc Elementary brought 38 kids to the event. Kids were separated into groups of five. Volunteers or staff members led the groups to the pond, demonstrated the fundamentals of fishing with loaner rods and reels, and encouraged the kids to fish on their own with supervision. Loaner rods & reels were provided from the Virginia Department of Game & Inland Fisheries (VDGIF). Hotdogs, chips and drinks were provided to participants, while a donation was requested for the adults to have lunch. Staff provided the kids with goody bags. Volunteers and staff received water bottles as special recognition for the 10th year anniversary. Prize drawings were held for rod & reel kits and small tackle boxes.
- o May 14, 2011 -- Prince William Trails and Streams Coalition cleaned trash from Marumsc Creek in Veterans Park to Occoquan Bay NWR property. Eleven volunteers removed a total of 655lbs of trash; including 14 tires, 5 boards with nails, pieces of metal, plastic plant pots, plastic bottles, cans, a plastic bat, a plastic crate, balls, Styrofoam and more. Trash bags, gloves, litter grabbers, and an Occoquan Wildlife Refuge permit, were obtained through Prince William Soil & Water Conservation District's Adopt-A-Stream Program and the trash was removed by PWC Department of Public Works. Access to the creek was arranged by private residents Sandra Dawson, Jim Zell and neighbors.



Volunteer removing trash and debris from Featherstone NWR.



Fishing at Painted Turtle Pond.

- o May 18, 2011 -- Ranger McClevey received an award for his work as a member of Chesapeake Bay Partnership. The Prince William County School Board hosted a dinner to recognize the partnership. Partners include George Mason University, Prince William Forest Park, Alice Ferguson Foundation, Manassas National Battlefield, and Wonders of Watersheds Middle School program.
- o May 2011 -- Marty McClevey worked with Living Classrooms DC to facilitate shad fry releases on Occoquan Bay NWR. Seven schools and over 150 children and teachers participated in the event.
- o June 3, 2011 -- Russian Ministry of Natural Resources and private sector partners toured Occoquan Bay NWR with Ranger McClevey and Officer Williams. The tour served as an orientation to the refuge system and basic refuge management. Visitors included:
 1. Ms. Olga Repina, Department of State Policy and Regulation of Environmental Protection and Safety (Protected Areas Section), Ministry of Natural Resources and Environment
 2. Ms. Elena Vorontsova-Kasumyan, Senior Engineer, Sakhalin Energy Investment Co. Ltd.
 3. Ms. Natalia Danilina, Director, Zapovedniks Ecocenter NGO (nature reserves and national parks)
 4. Dr. Alexei Surov, Deputy Director, Institute of Ecology and Evolution, Russian Academy of Sciences
 5. Mr. Ilya Mordvintsev, Ecoinformation Center, Institute of Ecology and Evolution, Russian Academy of Sciences
- o August 13, 2011 -- Prince William County Fair - 48 contacts
- o October 1, 2011 -- Friends of Potomac River Refuges Fall Festival at Occoquan Bay NWR. Event had 410 participants, 60 – 70 % were first time visitors.
- o October 8, 2011 -- USFWS opened Featherstone NWR to public use. Congressman Gerry Connolly delivered a speech at the official opening ceremony.
- o Wonders of Watersheds – An environmental education program with Prince William County Middle Schools facilitated by refuge staff and Joy Greene, EAGLES Center Coordinator. Seven schools made 24 visits with 1,551 students, 81 teachers, and 116 chaperones participating in the program.
- o Virginia Native Plant Society - Conducted annual meeting at the complex. 28 people toured Occoquan Bay NWR and 27 people toured Featherstone NWR.
- o Northern Virginia Birding Club walks - Steve Williams of conducted two bird walks. A total of 46 people attend the bird walks.

Staff Guided Programs:

Occoquan Bay NWR

- o Oct 23, 2010 -- Nocturnal Creature Feature -27 people
- o Dec 4, 2010 -- Occoquan Bay NWR PowerPoint presentation and van ride - 7 people
- o Feb 12, 2011 -- Tracks & Scat - 22 people
- o Mar 5, 2011 -- Woodcock Walk with the Friends of Potomac River Refuges -26 people
- o April 23, 2011 -- Night Walk -8 people
- o July 16, 2011 -- Mammals of Occoquan Bay NWR - 1 person

- o September 19, 2011-- USFWS Budget Office staff visited from Arlington learn about national wildlife refuges – 15 people
- o October 23, 2011 -- Nocturnal Event -7 people

Mason Neck NWR

- o Nov 20, 2010 -- Night Hike - 5 people
- o Mar 26, 2011-- Night Walk - 0 people
- o June 11, 2011-- Ranger Walk - 2 people
- o August 20, 2011-- Evening Walk - 4 people

Boy Scouts of America Projects:

- o October 23, 2010 - Ranger McClevey coordinated a scout project with Eagle Scout candidate Josh Rose. The project consisted of clearing and improving the interior hunt boundary for the Tree Stand area on Mason Neck NWR. The scouts began at 0930 and worked until 3 PM clearing the boundary along Gunston, Treestand and flagging the Great Marsh trail boundary. Fifteen scouts and seven adults worked the project and cleared approximately 1.5 miles of boundary.
- o James Fortner obtained the rank of Eagle Scout by coordinating work on the Great Marsh Trail with Ranger McClevey. His project consisted of filling in the edge with recycled concrete dust, clearing the vista and lopping limbs off the trail corridor. Hours spent by youth: 81 hours and 30 minutes; Hours spent by adults: 37hours and 15 minutes



LAW ENFORCEMENT

Complex Highlights:

- Total law enforcement (LE) incidents decreased in FY11, falling from 245 to 205 incidents. Consistent enforcement efforts and travel to training and assistance details (23 days) contributed to the reduction in incidents.
- USFWS Refuge Law Enforcement officers moved from the job series 0025-Park Ranger to series 1801-General Inspection, Investigation, Enforcement and Compliance. “Refuge Officers,” are now titled “Federal Wildlife Officers.”
- Agency Assists - Potomac River NWR Complex refuge law enforcement assisted neighboring agencies with the following:
 - o Turkey poaching enforcement near Mason Neck NWR with VDGIF
 - o Waterfowl enforcement on the Potomac River with VDGIF
 - o Assisted National Park Service with execution of large-scale ARPA search warrant in Petersburg, VA
 - o Aided VDGIF with local search warrant on deer and turkey poacher

ARPA search warrant, Petersburg, VA.



Deer racks seized during search warrant.

- o Assist State Police/DEA with marijuana eradication effort in central Virginia
- o Responded to incidents with BLM in Lorton, VA, in accordance with the complex MOU.

Elizabeth Hartwell Mason Neck NWR

- Reported incidents included bottle looting along trails, trespass, sexual activity in trailhead parking lots, graffiti tagging in bathrooms and overlooks, minor injuries along the bike trail, and dogs off leash.
- On February 14, 2011, a power line fell during a wind storm and sparked a fire on Mason Neck NWR. Fairfax County Fire Department responded contained the fire and damage to a relatively small area.



Fire started by downed power line on Mason Neck NWR.



Fairfax County Fire Department and refuge staff respond to fire.



Teepee made of refuge beech tree limbs.

- A Chapman Road resident cut beech tree limbs from refuge property to construct a backyard teepee for his children. Refuge LE staff educated the neighbor on statute 50 CFR 27.51(a) – “Disturbing, injuring and damaging plants and animals” and why tree limb removal it is not permitted on National Wildlife Refuges.

Occoquan Bay NWR

- Violations included unauthorized mountain bikers and joggers, high numbers of trespassing off trails, illegal removal of natural items (shells, feathers and driftwood), tire burnouts at Painted Turtle Pond pavilion, dog walking, sexual activity on the Wildlife Drive, drinking in public, and littering. Dumping incidents included televisions and household items and bread and pumpkins, likely tossed feed wildlife.
- A new bench along Easy Road and the life ring from the Painted Turtle observation deck were stolen this year.
- Vandals broke windows and punched holes in the walls of the “bunker”. Staff believes the vandals were searching for copper wire to sell.
- A refuge law enforcement contact resulted in an assault and use of force incident. The contact began as a low-level, compliance check incident for failure to pay entry fee and unauthorized bicycle use. The suspect became actively resistant to LE staff and pulled a knife from his pocket. In response, staff deployed a taser and arrested the suspect. Staff subsequently discovered the suspect was schizophrenic and failed to take his prescribed medication.



Bread dumped along Wildlife Drive.



Burnouts at Painted Turtle Pond pavilion.



Assault and taser deployment along Perimeter Road.

Featherstone NWR

- Incidents decreased significantly in 2011. This positive result is due to consistent LE presence for the last five years.
- Trespass, metal-detecting and digging holes on the refuge were among reported incidents.

EQUIPMENT AND FACILITIES

Trails, Roads, and Overlooks

- Tropical Storm Lee produced over 11 in. of rain in a single day in September. The storm flooded the complex causing damage to trails, roads, and other property. Heavy rains damaged culverts at Raccoon Creek, Sycamore Road, and High Point Creek. Rain washed out parts of Mason Neck and Occoquan Bay NWRs' gravel roads and High Point Bike Trail. In October, Maintenance Mechanic Boska and maintenance workers from Mason Neck State Park repaired the damage.
- A small fire was reported at the Woodmarsh Trail overlook on July 24th. Fairfax County Fire Department and Mason Neck State Park personnel responded. The fire continued to smolder for the two days. Complex staff monitored the site and extinguished remaining "hot spots".



Tropical Storm Lee damage to Mason Neck Bike Trail near the Woodmarsh Trail Parking Lot.

New Construction

- Friends of the Potomac River Refuges, staff, and volunteers constructed three shade shelters along Occoquan Bay NWR trails.
- Mason Neck NWR maintenance facility construction began in March. Contractors completed the project in November.

Major Maintenance

- The Complex received a USFWS Environmental Leadership Award Honorable Mention in the Good Neighbor category for sustainable practice efforts through recycling. The Good Neighbor Award recognizes a team or facility for its engagement with local or regional communities to plan, pursue and achieve sustainability goals. In February, refuge staff, volunteers, and partners removed more than 1200 pounds of scrap aluminum, brass, and copper from an aluminum conduit line located at Occoquan Bay NWR.



Completed shade shelter on Occoquan Bay NWR, scrap metal removal, and new John Deere 333D compact track loader.

Equipment Utilization and Replacement

In March the Refuge received a Deere 333D Compact Track Loader. The loader came equipped with a “forestry package” to be used for invasive management and in shrub management areas. The Deere 333D replaced a 1976 Allis-Chalmers 840 loader.

Service Asset and Maintenance Management System (SAMMS)

On March 31 in preparation for the USFWS transition to the new Financial and Business Management System, the Complex discontinued data entry into the FWS SAMMS. Regional and Washington Office staffs completed necessary SAMMS data entry after the March deadline. Data continued to be available to the complex on a “read only basis”.

WILDLIFE AND HABITAT MANAGEMENT

Big Game Hunt

Deer hunts were conducted on both Mason Neck and Occoquan Bay NWRs. This year hunters were required to take a doe prior to taking a buck and bucks had to have a minimum of four points on one side.

2011 Hunt Results

Mason Neck NWR Hunt - 33 deer (20 does, 13 buck, 8 antlered); past data over 80 deer

Occoquan Bay NWR Hunt - 16 deer (12 does, 4 bucks, 3 antlered)

Animal Control

The refuge has conducted an animal control program this year. Removal of coyotes and beavers is conducted on an opportunistic basis or restricted to removal of problem animals.

Invasive Plant Species Management

Park Ranger McClevey conducted pesticide spray operations at the Mason Neck and Occoquan Bay NWRs in 2011. Specific alien invasive plants targeted at Occoquan Bay NWR include: mile-a-minute (*Persicaria perfoliata*), beefsteak plant (*Perilla frutescens*) and Japanese knotweed (*Fallopia japonica*). McClevey sprayed seven distinct colonies of mile-a-minute totaling approximately three acres. Small (under a tenth acre) colonies of beefsteak and knotweed were treated. Staff found a new plant, wineberry (*Rubus phoenicolasius*), beginning to take hold on site. The handful of the plants were treated and hopefully eradicated. A small colony of tree of heaven (*Ailanthus altissima*) was basal treated near the old home site in conjunction with a cooperative meadow management project. Follow-up monitoring revealed that no re-sprouting had occurred within the spray area

Due to other commitments, Ranger McClevey was able to focus only on small isolated colonies of mile-a-minute, wineberry and beefsteak in the proximity of the High Point Creek impoundment and the Great Marsh Parking Lot of Mason Neck NWR. Rodeo and Garlon 4 were employed on the dike to target approximately 150 stems of various hardwood trees establishing a foothold on the constructed dike structure. Wineberry and mile-a-minute were treated at the Great Marsh Parking Lot.

Additional invasive species prevalent on both refuges include: Nepalese stilt grass (*Microstegium vimineum*), Chinese lespedeza (*Lespedeza cuneata*), Bradford or Callery pear (*Pyrus calleryana*), Russian olive (*Elaeagnus umbellata*) and phragmites (*Phragmites australis*).

McClevey attended one day of the Mid-Atlantic Invasive Plant Conference on invasive plant control at the National Conservation Training Center. During the conference, successful restoration programs were featured along with field workshops which focused on state of the art equipment and control techniques. Attendance at the conference fulfilled McClevey's training requirements for the Virginia State Pesticide Applicator's program.

MAPS Banding Station

Two Monitoring Avian Productivity and Survivorship (MAPS) stations have been operated on Mason Neck NWR since 1995. The stations are Mason Neck-1 located on Sycamore Road near Old Barn Road and Mason Neck-2 on Little Marsh Road northwest of the High Point eagle nest. Trained volunteers operate the stations and conduct banding sessions between May and August.

2011 MAPS Summary

Mason Neck 1: 32 birds banded of which 16 were Hatch Year
13 recaptures of which 9 were banded in previous years
41 individuals handled of 14 species

New:	1 Magnolia Warbler	Recaptured:	9 Northern Cardinal
	1 Northern Parula		1 Tufted Titmouse
	2 Acadian Flycatcher		2 Downy Woodpecker
	4 Ovenbird		1 Wood Thrush
	1 Red-eyed Vireo		
	1 Indigo Bunting		
	2 Scarlet Tanager		
	8 Tufted Titmouse		
	1 Carolina Wren		
	3 Wood Thrush		
	6 Northern Cardinal		
	1 American Robin		
	1 Blue Jay		

Mason Neck 2: 46 birds banded of which 16 were Hatch Year
 10 recaptures of which 9 were banded in previous years
 55 individuals handled of 20 species

New:	1 Northern Parula	Recaptured:	2 Tufted Titmouse
	3 Acadian Flycatcher		2 Northern Cardinal
	7 Prothonotary Warbler		3 Prothonotary Warbler
	1 Hooded Warbler		3 Acadian Flycatcher
	1 Common Yellowthroat		
	1 White-eyed Vireo		
	1 Black and White Warbler		
	2 Ovenbird		
	1 Red-eyed Vireo		
	1 Carolina Wren		
	1 SWTH		
	6 Tufted Titmouse		
	1 Downy Woodpecker		
	1 Scarlet Tanager		
	2 Gray Catbird		
	2 Wood Thrush		
	4 Northern Cardinal		
	1 Blue Jay		
	1 Yellow-billed Cuckoo		
	8 Common Grackle		

New and Unusual Wildlife Sightings

- Ranger McClevey and local birder Marc Ribaudo identified Lapland longspurs at Occoquan Bay NWR on January 29, 2011. Photographer Garth documented the sighting.
- Lesser black-backed gull identified on 2011 Christmas Bird Count