



# Mid-Atlantic Network

NEWSLETTER Fall 2009

Volume 2 Issue 2



## Something to Sing About - Bird Monitoring with Volunteers!

This spring, the Mid-Atlantic Network (MIDN) pilot-tested a new volunteer-based breeding bird monitoring protocol! Nicolas Bircher, a Master's student in Environmental Sciences at the Swiss Federal Institute of Technology in Zurich, Switzerland, helped develop the pilot project. The protocol is based on the Northeast Temperate Network's (NETN) Landbird Monitoring Program to ensure compatibility among networks and other state, government, and non-profit organizations within the Northeast Coordinated Bird Monitoring Partnership.

The monitoring uses point-count survey techniques to track the status and trends of breeding birds within our parks. During each 10-minute point count, all birds seen or heard are recorded along with the distance of the bird from the observer and the time it was detected. Collecting this data over a long-term can provide a measure for assessing ecological integrity and allow park managers to evaluate the impact of management strategies on the avian community.

This year's pilot testing with volunteers occurred in Booker T. Washington NM, Valley Forge NHP, and Fredericksburg and Spotsylvania NMP. Over 20 local volunteers were trained to conduct point counts,



Volunteers being trained on the bird monitoring protocol. Photo by S. Wakamiya.

use GPS units, and estimate distances. Between May 25 and July 15, over 200 point counts were conducted in the three parks. The MIDN would like to thank these volunteers for their dedication and hard work!

### Bird Data in Use

MIDN recently released two reports on the results of the 2003-2004 bird inventories at Booker T. Washington NM and Fredericksburg and Spotsylvania NMP. These reports contain a species list for each park and discuss habitat and management implications for the avian community.

One of the main purposes of the I&M baseline inventories was to create species checklists for the parks. To extend that purpose to the public, bird checklist brochures were created for Appomattox Courthouse NHP, Booker T. Washington NM, and Fredericksburg and Spotsylvania NMP using data from the avian inventories. These brochures are available at the visitor center or online.

Reports and brochures can be downloaded from: <http://science.nature.nps.gov/im/units/midn/Reports.cfm>



## Inside this issue:

- 1 Volunteer birders test protocol
- 2 Forest vegetation protocol
- 2 Water quality meeting
- 3 Vital Sign monitoring updates
- 4 People news

# Forest Vegetation Monitoring Protocol is now available!

The forest vegetation monitoring protocol has been published! This year, the protocol underwent external peer review, a process that provided valuable feedback and helped us to improve the document.

The protocol is available for download at: <http://science.nature.nps.gov/im/units/midn/ProtocolForestVegetation.cfm>

Over the summer, the forest vegetation field crew (Katherine Wilkin, Erika Gorczyca, Nichole Lightle, and Andrew Vincello) assisted the Mid-Atlantic and Northeast Temperate networks to establish over 150 plots in the Northeast Region. The crew spent the first half of the field season in the Northeast Temperate Network before heading to the Mid-Atlantic Network.

Between August and September they established 77 plots in MIDN parks: Appomattox Court House NHP (7), Booker T. Washington NM (2), Fredericksburg and Spotsylvania NMP (26), Gettysburg NMP (8), Hopewell Furnace NHS (4), Petersburg NB (13), Richmond NBP (10), and Valley



Andrew Vincello measures herbaceous plants at Gettysburg NMP. Photo by J. Comiskey.

Forge NHP (7).

The crew also established eight plots in three Northeast Coastal and Barrier Network parks: George Washington Birthplace NM (2), Thomas Stone NHS (2), and Sagamore Hill NHS (4).

Currently the data entry and verification is being completed in order to produce the first annual report for the forest vegetation monitoring program. This report will summarize the first three years of data.

Already, the forest vegetation protocol is becoming an important component of park management. At Valley Forge NHP, the newly released deer management plan will be using data from the forest vegetation monitoring to help the park evaluate the effectiveness of management actions. The protocol evaluates tree regeneration and cover of target species that are indicators of deer browse. Likewise, the protocol can be used to alert parks to increasing browse pressure as deer densities increase.

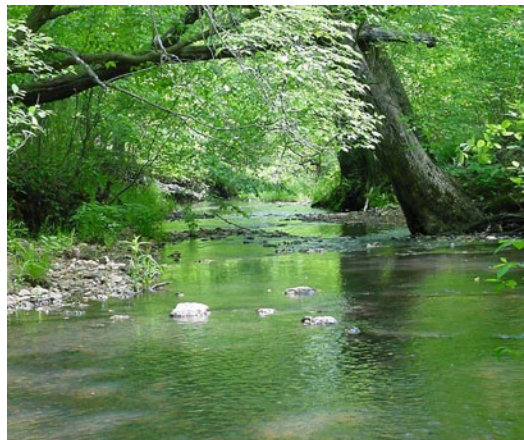
---

## Meeting held to discuss Water Quality Monitoring

In November, MIDN and University of Virginia (UVA) hosted a Water Quality Technical Advisory Committee meeting at the Department of Environmental Sciences in Charlottesville. Eighteen participants from USGS, Virginia Department of Environmental Quality, NPS, and UVA met to discuss the proposed plans for the network's water quality monitoring program and provide an overview of the legacy protocol being updated for Shenandoah NP. The role of the committee was to assist the network in addressing unresolved issues related to protocol development.

The University of Virginia has been monitoring water quality in Shenandoah NP since 1979. Currently, they are developing the protocol for the rest of the MIDN and have established 51 water quality monitoring sites in nine network

parks. A challenge MIDN faces is how to collect data that will be meaningful to network parks given our funding and personnel limitations. This was one of several questions posed to the advisory committee.



The Appomattox River flows through Appomattox Court House NHP. Photo by J. Comiskey.

Sampling fewer sites more frequently will help us detect changes over a shorter time frame. This, however, would mean that we can only sample one or two sites per park, an approach that may not provide adequate spatial coverage, especially in parks that have multiple units spread over a wide area.

Over the next year, UVA and MIDN will implement pilot testing across the network. The likely approach will involve a combination of intensive and extensive sites — a small number of sites sampled monthly with a greater number sampled quarterly. The data from pilot testing will help us determine the best sampling combination to use in the long-term monitoring program, as well as the level of support that can be provided by individual parks wanting both intensive and extensive data collected.



# Status of the MIDN Vital Sign Monitoring

## Air Quality

The NPS Air Resources Division has released its 2008 Air Quality in National Parks Progress Report which can be accessed at: [http://nature.nps.gov/air/Pubs/pdf/AQ\\_Trends\\_In\\_Parks\\_2008\\_Final\\_Web.pdf](http://nature.nps.gov/air/Pubs/pdf/AQ_Trends_In_Parks_2008_Final_Web.pdf). The report shows increasing air quality at some network parks for ozone (Fredericksburg and Spotsylvania NMP, Gettysburg NMP, Petersburg NB, Richmond NB, Shenandoah NP, and Valley Forge NP), atmospheric deposition (Gettysburg NMP and Shenandoah NP), and visibility (Gettysburg NMP) between 1997 and 2007.

## Aquatic Macroinvertebrates

Appalachian Aquatic Consultants are currently processing and identifying samples collected in the spring. This data will be used to inform development of the aquatic macroinvertebrate monitoring protocol which we expect sometime next summer. Additional sampling and training are scheduled for 2010. Plans for developing a regional macroinvertebrate monitoring working group are currently underway.

## Breeding Bird Monitoring

Pilot testing volunteer monitoring was very successful (see page 1). We are planning to conduct the second year of pilot testing at Booker T. Washington NM, Valley Forge NHP, and Fredericksburg and Spotsylvania NMP. For the remaining parks, we are glad to assist in developing the sampling



Nichole Lightle measures the DBH of a tree at Gettysburg NMP. Photo by J. Comiskey.

strategy, provide training, and conduct data analysis and reporting; each park will have to coordinate volunteers to implement the program, and mark the sample locations in the field.

## Forest Vegetation

The network has completed the third year of plot establishment. With one more year to go, we currently have 230 plots established across the Mid-Atlantic Network and 12 plots in Northeast Coastal and Barrier Network. For 2010, we will continue

to share a field crew with NETN. The crew will be led by Andrew Vincello, recently hired by NETN as the new crew leader. Andrew has already spent two seasons working with NETN and MIDN, so he has extensive experience with the network parks and the monitoring protocol. Welcome Andrew, it is great to have you on-board!

## Water Quality and Quantity

Cooperators from UVA completed sample collection in all VA parks this summer and are scheduled to sample the PA parks (excluding Valley Forge NHP) in the fall. A technical advisory committee met at UVA to help inform the final stages of the protocol development (see page 2). By the end of the year we expect to have two protocols, one for Shenandoah NP and one for the remaining parks in the Mid-Atlantic Network. Implementation and testing for the protocol will start in 2010, when we hope to conduct monthly and quarterly sampling to help determine the best sampling frequency for the long-term program. Valley Forge NHP will have no formal field sampling, instead we will report on data collected by other partner organizations. The data compilation procedures will also be applicable to other parks in the network.

## Weather and Climate

The 2007 Annual Climate reports are being finalized while the 2008 reports are under review. We expect to have both sets of reports completed and posted by early next year.



Suzanne Maben and Ben Sutphen, University of Virginia, calibrate field instruments at Fredericksburg and Spotsylvania NMP. Photo by J. Comiskey.



Rick Webb, University of Virginia, collects water quality data at Fredericksburg and Spotsylvania NMP. Photo by J. Comiskey.



# Gone, but still connected

Earlier this year, Carolyn Davis (MIDN Science Communicator & NNL Coordinator) and her husband, Zach Bolitho (Natural Resource Specialist at GETT) decided to take an adventurous move from Gettysburg, Pennsylvania, to the northern Oregon coast.

Zach is now the Chief of Resources at Lewis and Clark NHP based out of Astoria, Oregon. However, Carolyn continues to assist the Mid-Atlantic Network on a part-time basis with the creation of the newsletter (such as the one you're reading right now!).

The hardest part about making the move was leaving all the wonderful people that work in the Northeast Region and its parks. In their spare time they've been busy exploring the coastline, mushroom hunting, and trying to stay dry in the 84 inches of rain the coastal climate gets!



Carolyn Davis and Zach Bolitho exploring Oregon's Ecola State Park with their daughter. Photo by C. Davis.

Cover photo credits: Common yellowthroat in top banner by N. Bircher; Eastern box turtle in bottom banner by C. Davis.

## Mid-Atlantic Network

[science.nature.nps.gov/im/units/midn/](http://science.nature.nps.gov/im/units/midn/)

## Shenandoah National Park Natural Resource Inventory and Monitoring

[www.nps.gov/shen/naturescience/](http://www.nps.gov/shen/naturescience/)

## National Inventory & Monitoring Program

[science.nature.nps.gov/im](http://science.nature.nps.gov/im)

## National Park Service

[www.nps.gov](http://www.nps.gov)

Mid-Atlantic I&M Network  
Fredericksburg and Spotsylvania NMP  
120 Chatham Lane  
Fredericksburg, VA 22405

## Program Manager/Ecologist:

James Comiskey  
[jim\\_comiskey@nps.gov](mailto:jim_comiskey@nps.gov)  
(540) 654-5328

## Data Manager:

Sarah Wakamiya  
[sarah\\_wakamiya@nps.gov](mailto:sarah_wakamiya@nps.gov)  
(540) 654-5538

## Science Communicator:

Carolyn Davis  
[carolyn\\_davis@nps.gov](mailto:carolyn_davis@nps.gov)



Original artwork by Cheryl Tanner