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## Summer 2022 Natural Resource Quarterly

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## Natural Resource Quarterly | Summer 2022

*Newsletter of Natural Resources in the National Capital Region*



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## Wildlife Updates

Scott Bates, NCR Wildlife Biologist

### Avian Flu

In February, [avian influenza \(HPAI\) was found in a wild duck on the Eastern Shore and in a backyard flock of mixed birds in Fauquier County](#). Birds with the disease exhibit sneezing, coughing, walking or swimming in circles, and swelling of the legs and feet. No human cases were detected. The possibility for human transmission is sporadic.

What makes this flu different from other avian flus is a higher prevalence in wild birds so that it will keep circulating between wild birds and commercial poultry. If you must handle dead birds, use gloves, mask, and other personal protective gear. More information is available on the NPS [HPAI Sharepoint](#) site. Report sick birds or unusual bird deaths to the [NPS Wildlife Health and Morbidity Observation database](#).

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### Bobcats



**Above:** Bobcat at Catoctin Mountain Park on April 3, 2022. Credit: NPS

**Right:** Bobcat scat (next to car keys for scale) found in the lower Gambrill Mill field at Monocacy National Battlefield in April. Bobcat scat is distinct in its extreme segmentation and hardness. (Coyote scats are rope-like and have a softer texture.) Bobcat specimens and sightings have been recently confirmed in Montgomery and Prince George's Counties, Maryland.



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### Chronic Wasting Disease

[Chronic wasting disease](#) (CWD) is a wildlife disease that infects white-tailed deer as well as elk, moose, and reindeer (cervids). The disease has been present in the greater National Capital Region for many years, but to date it has not been found in any of the region's national parks. (All parks managing deer populations participate in a CWD sampling program and to date all results have been negative. This provides a high level of confidence that CWD does not currently exist in park deer populations.)

Maryland, Virginia, and West Virginia all monitor for movement in CWD cases across their states. In spring 2022, West Virginia had no new cases to report. Virginia had new cases in Loudon and Fauquier Counties two miles north of Leesburg and eight miles west of Manassas National Battlefield Park. Maryland had no new cases further east past Breathedsville, five miles north of Antietam National Battlefield.

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## Northern Long-eared Bats at Catoctin

A pregnant, northern long-eared bat (NLEB, *Myotis septentrionalis*) was found at Catoctin Mountain Park during bat monitoring on May 17. NLEBs are listed as threatened and are under consideration for reclassification to an endangered species by the US Fish and Wildlife Service.

The bat, who flew into a mist net was found to be in good health and was tagged using a small transmitter before being released. Researchers used the transmitter to track the bat and found 7 females and 1 male under the shingles and in the eaves of various park historic structures. (Typically NLEBs roost under the bark of small, standing dead or wounded live trees.)

Finding a pregnant NLEB in mid-May means pup season for these bats, previously thought to begin in June and run until July 31, is actually starting a few weeks earlier around May 15. Breeding NLEBs have been found previously at Gettysburg National Military Park and Rock Creek Park.

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## Resilient Forest Management Workshop this November



*Photo: Prescribed fire in Catoctin forest, 2018. Credit: NPS*

Join natural resource managers, ecologists from Inventory & Monitoring networks, and regional natural resource staff from the former Northeast and National Capital Regions (NER and NCR) for a training on resilient forest management this November.

This workshop will focus on strategies to promote resilient forests in eastern national parks by:

- training park staff on tools to address the most pressing threats to park forests
- connecting park managers with resources (funding, agencies, knowledgeable NPS staff) to enable them to implement resilient forest management
- building regional collaborations to address threats to forest health

Panel discussions during the workshop will cover topics like:

- forest pest management
- prescribed fire in forests
- actions to promote climate resilience
- strategic approaches to invasive plant management
- opportunities and challenges in managing forests in cultural landscapes

The **Resilient Forest Management Workshop**, hosted by NCR and NER regional natural resource and I&M staff, **will take place November 1-3** at the National Conservation Training Center in Shepherdstown, WV. Contact [Liz Matthews](#) for details.

## Why Support Resilient Forests Now

In response to concerning long-term trends in tree regeneration throughout the tens of thousands of acres of forests in eastern national parks, the NCR and NER I&M networks are convening this workshop to encourage and advance management actions that promote forest health and to foster new or expanded collaborations among managers and regional staff across the regions.

The ecological challenges that inspired this workshop is explained in the NPS article series: [Long-Term Monitoring Reveals Northeastern Park Forests in Peril](#). Both the workshop and article series are part of the larger [Managing Resilient Forests Initiative](#).

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## Ash Trees: Where Are They Now?



The [latest data on ash trees, emerald ash borer \(EAB\), and habitat changes in NCR parks](#) is in a new online resource brief from the NCR Inventory & Monitoring Network.

*Photo: Standing dead ash trees at Piscataway Park. Credit: NPS/Brolis.*

## Good Riddance to Mall Rats

The National Mall (NAMA) gets over 32 million visitors a year and those visitors produce trash. This trash supports a thriving population of Norway rats (*Rattus norvegicus*) that until recently the park managed only with anticoagulant rodenticides. However, these poisons are a secondary risk to humans, other animals that might eat the poison (chipmunks, squirrels), and to predators that might scavenge the dead/dying rats (raccoons, owls, foxes, coyotes, hawks, vultures, and falcons).

That's why since November 2020, NAMA has been treating rat burrows on the Washington Monument grounds primarily with carbon monoxide. This method is effective in killing rats and allows the park to reduce their use of rodenticides. They are now looking to expand the use of carbon monoxide for rat control to other locations on the National Mall.



*Photos: On left, NAMA Biological Science Technician Brittany Grouge presenting a poster on NAMA rat control at the 10th International Integrated Pest Management (IPM) Symposium in Denver. Credit: NPS. On right, Carbon monoxide treatment being applied to a rat burrow at the Washington Monument. Credit: NPS*

## Ft. Hunt Bee Relocation is Sweet Solution

This May, George Washington Memorial Parkway staff resolved a long-standing safety and resource management issue where a large hive of honeybees in a hollow tree posed concerns for a future playground project at Fort Hunt Park. While a beehive might conjure up Winnie-the-Pooh whimsy, the proximity of stinging insects to the playground was a problem, so the park jumped into action.

For the National Park Service, non-native European honeybees are considered "trespass" animals, much like a farmer's livestock that might wander into a park. Ordinarily, NPS would have the livestock owner come and remove their animals, but in the case of the Fort Hunt honeybees, the park had no way to identify their owners. So, the park got creative and reached out to the Northern Virginia Beekeepers Association for help.

On May 13, the park tree crew and cooperating beekeepers met at the tree, and donned protective bee gear provided by the beekeepers. The tree crew brought down the small tree in one cut. Then, at the direction of the beekeepers they sliced the tree into sections. The hive took up eight feet of hollow tree cavity, about a foot wide in some places, and was jam-packed with honeycomb.







Photos: **On left**, GWMP tree crew and Northern Virginia beekeepers work to take down a tree and relocate bees. Credit: NPS. **On right**, some of the honeycomb and bees inside the tree's large hive. Credit: Northern Virginia Beekeepers Association.

The beekeepers used two empty wooden bee boxes to collect the bees, one section of honeycomb at a time. They also shared a bit of honeycomb with the small nearby crowd. Throughout the operation, **no one was stung**, the bees found a new caretaker and home, and the nearby playground site is a safer place to play.

## Not Ft. Hunt's First Visit from a Queen

According to the [Cultural Landscape Inventory for Fort Hunt](#), the Fort Hunt CCC Camp was regarded as a "model facility," [in its day] and in June 1939, Franklin and Eleanor Roosevelt brought England's King George VI and Queen Elizabeth to see the camp following a visit to Mount Vernon, during a royal tour of Canada and the United States. The First Lady described the occasion in her memoirs, "This I Remember" (1949):

*"Though it was a hot day, the royal couple took pains to examine the entire camp, and closely questioned the men on their diet, food, and work. After inspecting the barracks and the mess hall, the king studied a display of photographs showing the work of the CCC across the country, which had been arranged outside on bulletin boards. (HRS, 82-94)"*

Either on that day or shortly thereafter, two pin oak trees (*Quercus palustris*) were planted to honor the royal visit at the spot where the King had viewed the exhibit. (One tree still stands by the loop road in Area B today. It was not involved in the honeybee relocation.)

## Stress-Loving Plants and At-Risk Flora in Harpers Ferry



Riversides scoured by constant flooding. Thin soils on top of rock beds. Some habitats are so stressful, only a few species have adapted to them and can survive. But in adapting to these tough conditions, these specialized plants (some are "edaphic" and are restricted to certain soil conditions) don't compete well in the relatively cushy conditions found elsewhere. They are very few in number and paradoxically, some of these rugged plants are considered vulnerable.

**Photo:** Globally rare rock skullcap (*Scutellaria saxatilis*) (S1G3) clump growing with native plants in rich humus along rock outcrops. Credit NPS/Clara Thiel.

A project to document vulnerable plants in some of these "extreme" places at Harpers Ferry (originally presented in the [Fall 2019](#) issue of this newsletter) recently released a preliminary summary of their results.

A team from Frostburg State University led by Clara Thiel revisited spots where rare, threatened, and endangered plants had been recorded before, to see if the plants were still around and in what numbers, and to document conditions at each site. The vulnerable plants they sought have conservation rankings of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable). (Learn more about [conservation rankings](#)).

During their resurveys, they found:

- Thirty four of 56 previously documented S1-S3 species
- Ten additional S1-S3 species not previously documented in the park

## Changes in Vulnerable Plants Follow Changes in

## Habitat Stability

The loss and change to populations of vulnerable plant species was primarily attributed to competition from invasive species, habitat loss, and changes in site maintenance or disturbance regimes. The Frostburg team recommended that sensitive habitats remain or become protected from the public, and that invasive species removal projects be prioritized.

In revisiting plant surveys done in the mid-1980s and late 1990s, this project offers the chance to look at vulnerable plants and the effects of:

- large-scale forest changes and canopy loss from spongy moth (*Lymantria dispar*) and emerald ash borer (*Agrilus planipennis*)
- management actions, inactions, or changes
- increased park visitation and access

Most urgently, researchers encouraged management of the large population of the highly invasive kudzu vine (*Pueraria montana*) growing along Route 340 that threatens the floodplain habitats of the Potoma Wayside.

## Highlights from this project

- Current peregrine falcon closures along the Maryland Heights overlook area are likely to benefit existing populations of lobed spleenwort (*Asplenium pinnatifidum*) that were documented in 2012.
- The Virginia portion of the park preserves high-quality riparian and river scour habitat home to several state and regionally rare plant species.
- Several invasive species have become established in the park's Virginia floodplains and pose threats to many vulnerable plants.
- High diversity areas in the West Virginia portion of the park should remain a top priority for maintenance and protection.
- Globally rare limestone cedar glade habitats have experienced extensive canopy closure in the absence of regular mowing or grazing that is stressing vulnerable sun-loving species.

## Project Facilitation

This project was facilitated by the Chesapeake Watershed Cooperative Ecosystem Studies Unit (CW CESU). The CW CESU promotes stewardship and integrated ecosystem management of natural and cultural resources in the Chesapeake Watershed through collaborative research, technical assistance, and education. To do research with CW CESU, please contact Danny Filer at 301-689-7108.



Photos: **On left**, starry Solomon's-plume (*Maianthemum stellatum*) (S2) in flower. Credit: NPS/C. Thiel. **On right**, dense thickets of invasive stiltgrass (*Microstegium vimineum*) in the southern limestone habitats in the park's WV area. Credit: NPS/C. Thiel.

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## Food for Thought: No Bad Plants

The article, "[Is it good or bad?](#)" [Rethinking language around invasive species](#) published by Friends of the Mississippi River in April addresses the connotations of

published by Friends of the Mississippi River (FMFR), addresses the consequences of war and xenophobia in how we talk about invasive species.

It parses the difference between non-native and invasive, proposes that there are no “bad” plants, and introduces the concept of “displaced plant relatives” inspired in part by partners at local Indigenous organizations.

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## Nature News, ICYMI

In Case You Missed It (ICYMI), here's a roundup of nature news and resources from the last quarter that may be of interest to those working with natural resources in the National Capital Region. This includes articles from InsideNPS, NPS press releases, and new NPS web and social media content.

[How to Participate in National Trails Day on June 4](#) (InsideNPS: 5/11/22)

[Forest Health Protection funding source - call for proposals](#) (InsideNPS: 5/9/22)

[Potomac River Barges at C&O Canal](#) (NPS News Release: 5/8/22)

[2022 March/April Geospatial Newsletter Released!](#) (InsideNPS: 5/2/22)

[Planning for a Changing Climate](#) (NPS News Release: 4/28/22)

[World Migratory Bird Day 2022 Theme to Focus on Light Pollution](#) (InsideNPS: 4/26/22)

[2022-04-22-Murphy-Farm-Landscape-Improvements at Harpers Ferry](#) (NPS News Release: 4/22/22)

[465 Acres Returned to Rappahannock Tribe Along the Captain John Smith Chesapeake National Historic Trail](#) (InsideNPS: 4/8/22)

[NPS Integrated Pest Management Webinar Series!](#) (NPS News Release: 4/7/22)

[National Park Service finalizes plan to manage deer populations in DC and Maryland parks](#) (NPS News Release: 3/30/22)

[Catoctin Mountain Park will update park trail system to enhance the visitor experience](#) (NPS News Release: 3/21/22)

[Prescribed fire - Antietam National Battlefield](#) (NPS News Release: 3/18/22)

[Prescribed fire planned this month at Wolf Trap National Park for the Performing Arts](#) (NPS News Release: 3/11/22)

[Project provides access to trails along the Potomac River - George Washington Memorial Parkway](#) (NPS News Release: 3/5/22)

A new interagency climate change report, “[2022 Sea Level Rise Technical Report](#)” provides updated sea level rise projections through 2150 for all U.S. coastal waters. Keep up to date on climate change issues with the [NCA Climate Change Workgroup](#).

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The Natural Resource Quarterly provides updates on the status of natural resources and science in National Capital Region parks.

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