



National Park Service

Summer 2023 Natural Resource Quarterly

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Natural Resource Quarterly | Summer 2023

Newsletter of Natural Resources in the National Capital Region



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Steury and Custer Win NCR Awards



Congratulations to the winners of the 2022 Regional Director's Awards in the National Capital Region (NCR)!

Brent Steury: Excellence in Natural Resource Research

George Washington Memorial Parkway (GWMP) Natural Resources Program Manager Brent Steury has been pivotal in developing and using science to drive and inform resource management. More than 20 years of park research has been instrumental to better understanding GWMP's biodiversity and highlighting the importance of small habitat fragments to the regional conservation of invertebrates. Brent has identified species new to GWMP, new to Virginia, and new to science, emphasizing the role that urban national parks play in protecting ecological integrity and biodiversity.

Jane Custer: Appleman-Judd-Lewis Award for Excellence in Cultural Resource Management

At Antietam National Battlefield, under Resource Management Program Manager Jane Custer's leadership, the park has made a dramatic shift toward stewarding and valuing a broader range of resources by integrating cultural and natural resource values. Jane's efforts will help to fundamentally change the park landscape in years to come by creating a more resilient ecosystem, restoring key viewsheds and vistas, creating new habitat, promoting connectivity in park trails to make the battlefield more accessible, and documentation and rehabilitation of commemorative and Mission 66-era historic landscapes and features.

All NCR award nominations were reviewed and endorsed by a panel of peers from NCR parks and the regional office. Nominations were forwarded to the Washington Office for consideration for service-wide awards.

Photos: On left Brent Steury. On right Jane Custer. Credit: NPS

Saving Floodplain Flowers in Rock Creek





Like the European starlings first brought to North America by Shakespeare enthusiasts in the nineteenth century, the lesser celandine plant is an invasive species that has been here so long, you might mistake it for a native. But you couldn't get further from the truth—the lesser celandine plant is an aggressive bully crowding out a host of native spring ephemeral flowers. [Read more about how Rock Creek Park has reclaimed space for native spring wildflowers.](#)

Photo: Native ephemerals at Rock Creek Park from L to R: spring beauties, Virginia bluebell, trout lily, and mayapple. (Credit: All NPS/Tait except for bluebells, NPS/Chuquin)

Return of Spongy Moth?!



Spongy moth (*Lymantria dispar*, formerly known as gypsy moth), is a forest pest that has laid low here in the National Capital Region (NCR) for 10-15 years. But it may be poised to surge once more.

[\(Catch up on pest basics here if you missed the last round of spongy moth.\)](#)

Recent spongy moth spread in North Carolina and Wisconsin have driven up the number of proposals to manage the pest from national park sites to nine this year, compared to two per year from 2016 to 2022. And some relatively inactive state management programs for spongy moth (like Virginia's) re-activated in 2022.

The last suppression efforts for spongy moth in NCR parks were in the 2008-2009 timeframe at parks including Catoctin Mountain Park and Prince William Forest Park. With nearby population surges of the pest and an [El Niño](#) that is creating the ideal climate conditions for spongy moth (warm and dry summer) in the mid-Atlantic, we could be ripe for an outbreak towards the end of this summer or starting next summer. So be on the lookout--and [report any sightings!](#)

[Learn more about spongy moth](#) including how they damage forest ecosystems, how to manage them, and how to [tell them apart from native tent caterpillars](#). Contact NCR Ecologist and Integrated Pest Management (IPM) Coordinator Dorothy Borowy at NPS email with additional questions on spongy moth.

Photo: On left, spongy moth caterpillars (Credit: USDA Forest Service/Tom Coleman). On right, spongy moths (Credit: USDA APHIS PPQ, Bugwood.org).

Reducing Deer and Removing Invasive Plants are Key to Long-term Forest Health

An April 4 [NPS news release](#) describes a [recent study published in the journal Ecological Applications](#) on the condition of forests in 39 eastern national parks (from 2008-2019). Almost all of these eastern forests are at risk due to browsing by overabundant white-tailed deer and crowding by invasive plants. These parks are taking steps to improve forest regeneration through a new collaboration called the

[resilient forest initiative.](#)

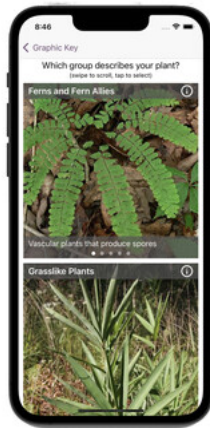
Miller, K., et al. 2023. "Overabundant Deer and Invasive Plants Drive Widespread Regeneration Debt in Eastern United States National Parks." *Ecological Applications* e2837. <https://doi.org/10.1002/eap.2837>

NCR Secures Special Funds for Landscape Conservation!

Cheers to all the park and regional staff who spent the last few months working hard on project proposals for some unprecedented funding opportunities (IRA and BIL)—you did a great job! Working and thinking as a region and collaborating with parks in the northeast and southeast lead to some amazing successes.

Numerous natural resource projects that will support parks in the National Capital Region are now planned and funded thanks to the recent Inflation Reduction Act (IRA) and Bipartisan Infrastructure Law (BIL). Projects include research and action on forest restoration, deer management, eastern grasslands restoration, and invasive plant management. [Learn more about IRA and BIL projects in the NCR](#) (NPS-only)

Weakley's Guide to Southeastern Plants Now Available as an App



Even if you're not a botanist, you've probably heard of Alan Weakley's *Flora of the Southeastern United States*. It's an authoritative and technical guide to plant identification. And it's big. Thousands of pages and thousands of plants big. So big, you probably wouldn't want to take it out with you on a hike.

But it's now available as an app for your phone, and you can select a version to fit your region within the Southeast. "FloraQuest: Northern Tier" is the name for the 11-state guide that includes **West Virginia, Virginia, Maryland, Washington (D.C.)**, Delaware, Pennsylvania, New Jersey, Kentucky, and parts of New York, Ohio, Indiana, and Illinois. It covers more than 5,800 wildflowers, trees, shrubs, grasses, and other vascular plants.

Photo: Screenshot of FloraQuest: Northern Tier app.

An Easier to Use Flora

To be clear, this is a guide to plants, but it is not a photo-identification app like iNaturalist, where the user snaps a photo of an organism for a community to ID. And it's also not an app to track the location of various species.

"FloraQuest: Northern Tier" does include easy-to-use graphic keys, advanced dichotomous keys*, habitat descriptions, range maps, and **20,000 diagnostic photographs**. The app also:

- allows you to enter in the plant characteristics you see and rules out all non-relevant species
- allows you to filter by your state and physiographic region and shows only relevant results close to you
- can be downloaded for offline use, and doesn't need an internet connection
- defines complicated botanical terms. Click on a word you don't know, and the definition will pop up in the app without you having to leave the page
- provides family and genus profiles with details about a group of plants as well as information about a particular species, which can be great for those new to plants and wanting to start broad or those brushing up on their plant relationships

The app also has suggestions for good places to botanize in every state. See the lists for [D.C.](#), [Maryland](#), [Virginia](#), and [West Virginia](#).

FloraQuest: Northern Tier is available for iOS and Android devices at [Flora Apps](#) -

[North Carolina Botanical Garden \(unc.edu\)](http://North Carolina Botanical Garden (unc.edu)). And the Southeastern Flora Team remains committed to traditional floras and making flora data accessible, so **you can download the latest PDF of the Flora of the Southeastern United States for free** (donations optional) at ncbg.unc.edu/flora

*A dichotomous key presents a series of paired choices describing a plant's characteristics that lead the user to plant identification (like an eye doctor asking which of 2 views is clearest, over and over again).

Awards Given to 3 Grad Students for Work on Chesapeake Watershed CESU Projects



Photos: Left to right- Chandler Berry, Megan Massa, and Leah Rudge. Credit: left to right- Berry, UMCES, and NPS.

A new award program from the Chesapeake Watershed Cooperative Ecosystem Studies Unit (CHWA CESU) recognizes graduate students who make outstanding contributions to a CHWA CESU-facilitated research project. Up to 3 awards of \$1,500 are given annually. This year's winners are:

Chandler Berry for his contributions to analysis of online information and news on rock climbing management issues at Harpers Ferry (HAFE), support of a 3-park climbing management research project for Harpers Ferry, C&O Canal, and Great Falls, and his assistance with field data collection at Rock Creek and Wolf Trap for visitor use reporting.

Megan Massa for her work on grassland bird responses to habitat management in NPS battlefield parks. She analyzed a long-term NCR Inventory & Monitoring Network (NCRN I&M) grassland bird dataset, to document the value of NPS battlefield parks to grassland bird conservation and to demonstrate how land managers can augment or adjust open-space management to benefit this imperiled suite of species. She presented on this research to the 2022 American Ornithological Society conference, and in NPS forums (including meetings for the NCR Science Forum and the NCR Natural Resource Advisory Group).

Leah Rudge for her contributions to interpreting results of a grassland bird study at Harper's Ferry for park management use and for her public outreach and communication efforts related to that study. She also held a workshop for park staff to observe bird mist-netting and banding, and presented a talk on the topic at the Mid-Atlantic Ecological Society of America conference, and a poster at the Association of Field Ornithologists meeting.

Morgan Crump received honorable mention for contributions to a project evaluating human perceptions of anthropogenic light sources in protected areas. Over several years, Morgan led a team of undergraduate students who assisted volunteers through a one-mile trail system offering different rotating lighting conditions at night. Morgan demonstrated poise and professionalism in all her stakeholder interactions.

To learn more about the CHWA CESU Student Award, contact Rhonda Schwinabart at rschwinabart@umces.edu.

Food for Thought: Whose DC Canopy?

D.C. has some of the toughest urban tree protection laws in the nation, yet according to non-profit Casey Trees, the city tree canopy peaked at 38 percent in 2016. By 2020 it had lost 565 acres of trees—about the size of the National Mall. And the wards with

the highest number of Black residents—Wards 5, 7 and 8—are losing trees the fastest. A recent episode on private land near Fort Stanton park illustrates the phenomenon. Read more in:

[When the Trees Leave: Ward 8 is Losing Tree Canopy at Twice the Rate of DC Overall](#) Elizabeth O'Gorek. May 16, 2023. eastoftheriverdcnews.com

Inspiring Curiosity Science Ed Videos



Above: A screen capture from a new NPS video on macroinvertebrates at Wolf Trap National Park for the Performing Arts produced by American University film students through the NCR Urban Ecology Research Learning Alliance. This and other "Inspiring Curiosity" science education videos are expected to be available this July [on the UERLA website](#).

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 NPS press releases, new NPS web and social media content, and articles from InsideNPS (available to NPS only).

[The DC Region's Ash Trees Are Dying Off](#) (DCist News: 5/8/2023)

[National Park Service to begin construction on two Mount Vernon Trail bridges - George Washington Memorial Parkway](#) (NPS News Release: 5/8/2023)

[Building Relationships and Breaking Down Boundaries: The Fourth Biennial Science Communicators' Training \(sharepoint.com\)](#) (NPS Sharepoint: 4/24/2023)

[National Parks in Maryland, Virginia, West Virginia and D.C. provide more than 48,000 meals of donated venison to neighbors - Catoctin Mountain Park](#) (NPS News Release: 4/20/2023)

[Seven ways to get outside around D.C. this National Park Week - Rock Creek Park](#) (NPS News Release: 4/19/2023)

[Catoctin Mountain Park ramps up protection of native plants - Catoctin Mountain Park](#) (NPS News Release: 4/11/2023)

[Reducing deer numbers and removing invasive plants are key to long-term forest health - Catoctin Mountain Park](#) (NPS News Release: 4/4/2023)

Calendar

JUNE

4-7. [International Urban Wildlife Conference](#). Washington, DC.

JULY

13. Natural Resource Advisory Team (NAT) Meeting. 9:00 am – 12:00 pm. Contact Brittany Grouge at NPS email for meeting link.

The *Natural Resource Quarterly* provides updates on the status of natural resources and science in [National Capital Region](#) parks.

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