



Natural Resource Quarterly | Spring 2020

Newsletter of Natural Resources in the National Capital Area



In This Issue:

- Spring Amphibian Timeline
- Oak Decline
- Assisting Parks with Climate Change Communication
- Peregrine Falcons Return to Harpers Ferry
- A "Pleasing Fungus Beetle" is One of a Pair of New State Records for Virginia
- NRS Field Work in Your Park
- Calendar

Spring Amphibian Timeline

by Alex Wright, NCRN I&M Amphibian Monitoring collaborator, Michigan State University

[Photo: Gray tree frog (*Hyla versicolor*) Credit: NPS]



Spring is right around the corner, and with spring comes the start of most amphibian breeding within the parks (and the start of data collection for Inventory & Monitoring's March to July [amphibian monitoring](#) program). So, what should park staff and visitors be on the lookout for and when?

One of the first species to kick off the breeding season in the National Capital Area (NCA) is the **marbled salamander** (*Ambystoma opacum*), which gets a head start on other local amphibian species by breeding on rainy nights the previous fall.

[Read More](#)

Oak Decline

by Dorothy Borowy, Integrated Pest Management Coordinator for the National Capital Area

What is Oak Decline?

For centuries, oak trees (genus *Quercus*) have dominated the forests of the Eastern United States. They are vital components of deciduous forest ecosystems here and are one of North America's most valuable hardwoods. Recently though, oak populations have taken some dramatic losses. Symptoms include, early browning of leaves, thinning of canopy cover, and loss of branches, which eventually leads to tree mortality. Understanding and preventing this phenomenon has been challenging, given



that no single factor is responsible for what has been generally defined as oak decline. A host of stressors including climate, tree age, site conditions, and history of disease interact to weaken trees over time, ultimately leading to sudden* death when the tree's resources are exhausted. This death by a thousand cuts makes prevention of oak decline difficult, as stressors can both vary by location and change over time.

[Read More](#)

[Photo: Moderate to severe decline symptoms in mature red oak. Credit: Joseph OBrien, USDA Forest Service, Bugwood.org]

Assisting Parks with Climate Change Communication

This summer, the Urban Ecology Research Learning Alliance (UERLA) is supporting an interdisciplinary team of creative young professionals in creating park science communication products. The team, with experience in science, communication, and design, will work with the George Mason University's Center for Climate Change Communication to produce peer-reviewed products requested by park managers.



Previous interns in this program, running since 2012, have produced materials such as graphics for park websites, videos for use in visitor centers, and regional StoryMaps to engage virtual visitors. All work is developed in alignment with NPS standards and policies.

What can the team do for your park? Call [Ann Gallagher](#) with questions and ideas. This collaborative program was recently profiled in the journal *Park Steward Forum* (the Interdisciplinary Journal of Place-Based Conservation, from UC Berkeley and the George Wright Society) in an article entitled [Climate Change and Protected Places: Adapting to New Realities](#).

This program is 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.

[Images: Digital watercolors by UERLA intern Jessica Chen created to support a regional geology StoryMap developed by the FY18 intern team. **Image above** is of Rock Creek Park's Boulder Bridge. **Image below** is of the confluence of the Potomac and Shenandoah Rivers at Harpers Ferry National Historical Park. Credit: NPS/Jessica Chen.]



Peregrine Falcons Return to Harpers Ferry

by Matthew Olear, NPS Volunteer
Peregrine Expert

[Photo: Female peregrine falcon at Harpers Ferry National Historical Park. Credit: NPS]

It has been decades since peregrine falcons nested on Maryland Heights at Harpers Ferry, but in recent years the birds are showing an interest in the historic nesting site again. Learn about the history of this species at Harpers Ferry NHP and the recent developments of their return.



[Read More](#)

A "Pleasing Fungus Beetle" is One of a Pair of New State Records for Virginia



The George Washington Memorial Parkway (GWMP) can claim documentation of two more new species for Virginia. The beetles *Cryptophilus obliteratus* and *Tytthonyx erythrocephala* were found in the park's Little Hunting Creek area during malaise trapping in 2017 and 2018. Volunteers in the GWMP Bug Lab were instrumental in plucking specimens of these bugs from among the large number of insects collected.

T. erythrocephala is a species of soldier beetle in the Cantharidae family. *C. obliteratus* is in the family Erotylidae, known as "pleasing fungus beetles."

Learn more:

Steury, Brent. Two Beetles New to Virginia (Coleoptera: Cantharidae, Erotylidae). 2019. Banisteria, Number 52, pages 50-51.

[Photo: *Cryptophilus obliteratus*. Credit: NPS/Steury]

NRS Field Work in Your Park

During spring (March - May), programs from the office of Natural Resources and Science (NRS) are in parks doing the following field work.

For details of specific locations to be visited, consult the Inventory & Monitoring (I&M) weekly field update and the Invasive Plant Management Team's (IPMT) Look Ahead weekly email messages sent to your park's Chief of Resources.



I&M Amphibian Monitoring runs from March through June, conditional on availability of habitat at Catocin, C&O Canal, GW Parkway, Manassas, Monocacy, National Capital Parks - East, Prince William, and Rock Creek.

I&M Macroinvertebrate Monitoring begins in March at stream sites in GW Parkway, Manassas, Prince William, Rock Creek, and Wolf Trap.

I&M Stream Water Quality- continues on a bi-monthly basis at all I&M parks in NCR except C&O Canal.

IPMT Treatment of lesser celandine began late February.

[Photo: Water monitoring at Henson Creek. Credit: NPS]

Calendar

2020

APRIL

30. 2020 Spotlight on National Park Resources in the National Capital Region. National Conservation Training Center (NCTC).

MAY

19-20. NCA Grasslands Workshop. Stephen T. Mather Training Center, Harpers Ferry, WV.

JUNE

5. Chesapeake Watershed Cooperative Ecosystem Studies Unit (CW CESU) Annual Meeting. National Conservation Training Center (NCTC).

Submit your ideas for the next Natural Resource Quarterly newsletter.

The Natural Resource Quarterly provides updates on the status of natural resources and science in the parks of Region 1 - National Capital Area.

[NCA Natural Resources](#) | [Previous Issues](#) | [NCR Inventory & Monitoring](#)

