Spring Quarterly 2024

Get ready for the City Nature Challenge!
April 26-29, 2024

Beginning April 26, people across the greater DC metropolitan area will have the opportunity to participate in one of the largest citizen science events in the world: the City Nature Challenge.

The Challenge is a friendly rivalry among urban areas worldwide to document their local biodiversity. As a type of bioblitz—a concentrated biological inventory of species within a limited time frame—the Challenge seeks to increase the public's engagement with nature while providing valuable information to scientists studying the effects of urban density on biodiversity.

The City Nature Challenge began in 2017 when Los Angeles and San Francisco competed to see which area could produce the most observations of urban wildlife over one long weekend. Since then, the event has spread to over 450 urban areas in more than 50 countries worldwide, with bragging rights for the highest number of observations made, the highest number of individual observers who participate, and highest number of individual species identified per area. In the last five years, the CNC DC has consistently placed in the top 10 worldwide for all three measures and hopes to make a strong showing in 2024 as well.

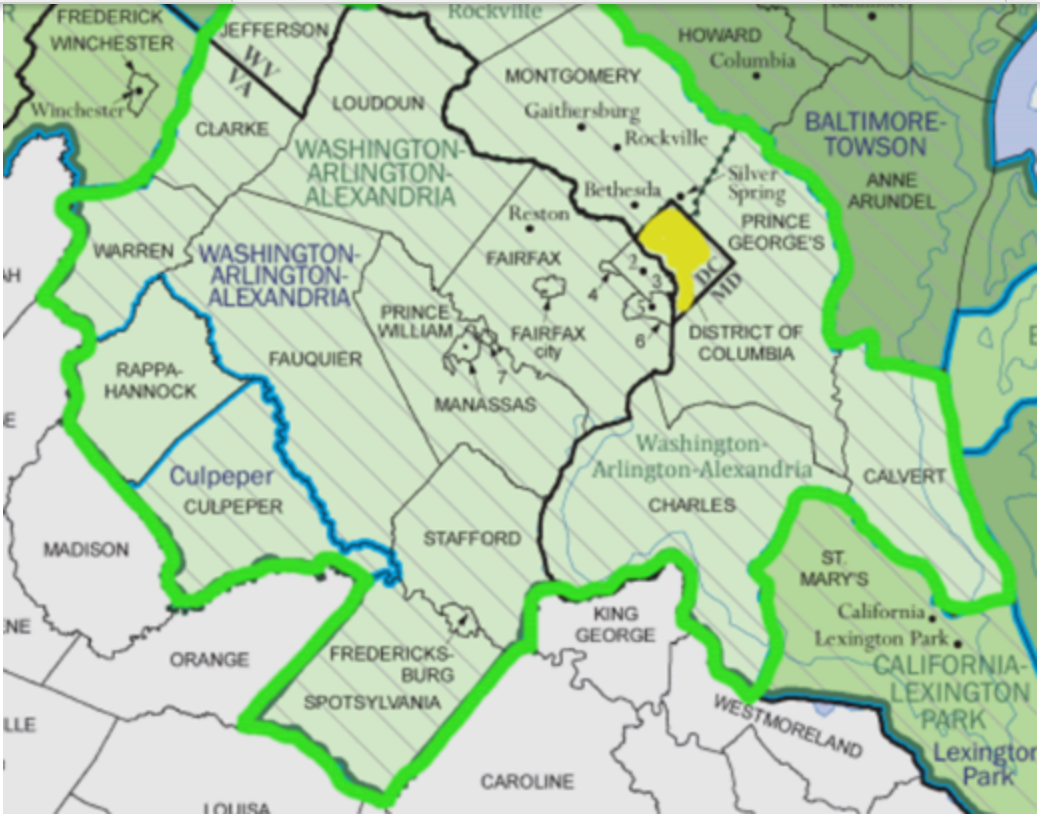
Cities all over the world participate in the City Nature Challenge. Click here to learn more: https://www.citynaturechallenge.org/participating-cities

Participation is fun and easy for volunteers at all skill levels. During the weekend of April 26-29, observers will use the free iNaturalist app or their own cameras to take photographs

of local wildlife—plants, fungi, insects, wild animals--and upload them to the iNaturalist website. Any observations taken between April 26-29, and uploaded by May 5 in the area designated below, will automatically be counted for the Challenge. From April 30-May 5, volunteers with expertise can help identify species by surveying observations on the iNaturalist website.

City Nature Challenge participants searching for salamanders at Barcroft Park in 2018.

Photo credit: Marion Jordan.



Observations made within the green outline on the map will count toward the DC metro area City Nature Challenge.

Interested in joining the 2024 DC Challenge? Get ready to participate by downloading the iNaturalist app and setting up an account. Then go out on your own to make observations during the Challenge weekend, or better yet, enlist your friends and families to join you in this citizen science event. ARMN has been a strong supporter of the CNC DC over the last five years and will be organizing group observation walks during the weekend. Similar group events will be listed on the CNC DC website.

In 2023, the DC City Nature Challenge identified more than 2,500 wild species in the metropolitan area. Help us do even better in 2024 by joining the Challenge. It offers a great opportunity to spend time in nature. In the process, you'll gain a greater appreciation of the diverse plants and wildlife around us and join citizen scientists across the world to increase our scientific understanding of biodiversity in urban areas.

If you'd like to join a group observation walk guided by ARMN members during the CNC weekend, click on this link to sign up:
https://armn.org/city-nature-challenge-washington-dc-metro-area/

Here are some other useful resources:

- List of resources for observers and identifiers: https://citynaturechallengedc.org/for-observers/
- List of other CNC DC events: https://citynaturechallengedc.org/events/
- The CNC international site: https://www.citynaturechallenge.org/
- Follow the CNC DC on social media:
- Instagram @CityNature_DC https://www.instagram.com/citynature_dc/
- Facebook: @CityNatureDC https://www.facebook.com/citynaturedc
- Twitter/X: @dc_citynature https://twitter.com/dc_citynature

-By Rosemary Jann

Connect with nature through citizen science

Participants looking for soil-dwellers during a bioblitz. Photo credit: ARMN

We live in a natural world of rich complexity, but one that is under increasing threat. To protect it, we must better understand it. Although nature's almost infinite variety may put full understanding out of reach, professional scientists have been able to significantly expand their access to data about what's happening in the environment by harnessing the power of the public through citizen science.

Citizen science, also known as community or participatory science, offers volunteers

opportunities to collect, analyze, and share data about the natural world, making it available for research projects conducted by professional scientists and resource managers. Volunteer observers and monitors collect data following established protocols and submit it for research purposes to recognized scientific and governmental organizations.

Citizen scientists are expanding our knowledge of the world in numerous fields. Birders can submit their findings to enhance understanding of avian populations and migrations. Trained listeners can verify the seasonal presence of frog and cricket species; monarch butterfly taggers help map the movements of an endangered species. The effects of climate change can be revealed through close observation of phenology, the timing of plant and animal behaviors. Sky watchers can report on the effects of light pollution or enhance NASA's understanding of cloud formation. Precipitation monitors reveal patterns in rain and snowfall and help identify storm behavior and microclimates.

There are citizen science projects for all skill levels, including ones that you can do in your own backyard or local park. Many offer great ways to get children interested in science and the natural world. Participating in citizen science projects will enhance your understanding of the plants, animals, and natural environment that surrounds you while also contributing to projects of global importance.

Read the Become a Citizen Scientist article to see ways in which you can get involved today.

-By Rosemary Jann

Reestablishing Itea Virginica in Little Hunting Creek

Students from Stone Ridge School of the Sacred Heart plant *Itea virginica* and *Iris versicolor* in tidal wetland habitat along Little Hunting Creek.

Photo credit: Matt Bright, Earth Sangha

If you visited Earth Sangha's Wild Plant Nursery last year you may have noticed that we had a large number of Virginia Sweetspire (*Itea virginica*) reserved for conservation projects. This spring, we've finally gotten started planting these out into appropriate tidal wetland habitats in the hope of reestablishing a secure population.

Itea virginica is a smallish native shrub that, while common in the horticultural trade, is increasingly rare in our wild areas. Most of its habitat are tidal wetlands – and increasingly rare habitat type in a region that continues to see rapid development. Rod Simmons' *Native Vascular Flora of the City of Alexandria, Virginia* lists *Itea virginica* as historically known in Hunting Creek where Cameron Run and Four Mile Run meet and form a cove (a separate creek from Little Hunting Creek farther south where we're working), but otherwise suspected extirpated from the City's natural areas.

After a lucky year of good seed germination, Lisa Bright, our co-founder and Director

Emeritus has grown increasingly concerned that this may be our last succession of *Itea virginica* absent any effort to protect this species as populations along the Potomac suffer from erosion, high levels of siltation, and development threaten other tidal wetland habitats.

We decided to develop a plan to donate our Sweetspire seedlings to an effort to reestablish them in appropriate habitat.

First, we had to identify appropriate habitats. While *Itea virginica* is common in the trade and frequently planted into a variety of conditions, in the wild locally we see it in tidal wetlands so we confined our search to tidal wetland habitats. Ideally, we wanted to be working in areas that may have once had documented populations. Next, we wanted to ensure restoration plantings happened in areas already in conservation either as parkland or through conservation easements. From there, we assessed the general health of these sites either hoping to find extant populations of *Itea virginica* (alas, we had no such luck!) or healthy populations of other tidal wetland species that indicated the Sweetspire could thrive.

Matt Bright, the Executive Director at Earth Sangha where he has worked full-time on native plant conservation since 2011.

Those criteria led us to the Little Hunting Creek watershed. A search in SERNEC (the Southeast Regional Network of Expertise and Collection – a vast effort to digitize herbaria specimens) found a historical population near the mouth of Little Hunting Creek as late as

1975. The selected wetlands we visited had populations of other wetland shrubs like *Ilex verticillata*, *Cephalanthus occidentalis*, and *Swida amomum* (syn. *Cornus amomum*) and perhaps most importantly for us, good populations of the tidal wetland specialist, *Zizania aquatica* the annual, native Wild Rice. Wild rice's presence suggested to us a relatively stable tidal wetland environment – populations on the Potomac River tend to be less reliable because the tidal wetlands there are less healthy.

As of writing, we've already planted over 50 *Itea virginica* seedlings to a Northern Virginia Conservation Trust site along with the support of the Friends of Little Hunting Creek. Separately, we've gotten support from Fairfax County Park Authority for a similar replanting upstream at Martin Luther King Jr. Park. Both of these sites were not too long-ago tidal swamps that have rapidly become tidal marshes as the native green ashes have died from emerald ash borer. We're working on growing ash to address that too, but that's probably best left to another blog post.

If you're interested in joining Earth Sangha on its mission to preserve local *Itea virginica* genotypes, please check www.earthsangha.org/volunteer. If you have any questions please contact Matt at mbright@earthsangha.org.

-By Matt Bright

Book Review

by Herb Bolton

Arlington Master Naturalist, Fall 2022

Insects of North America

By John C. Abbott, Kendra K. Abbott

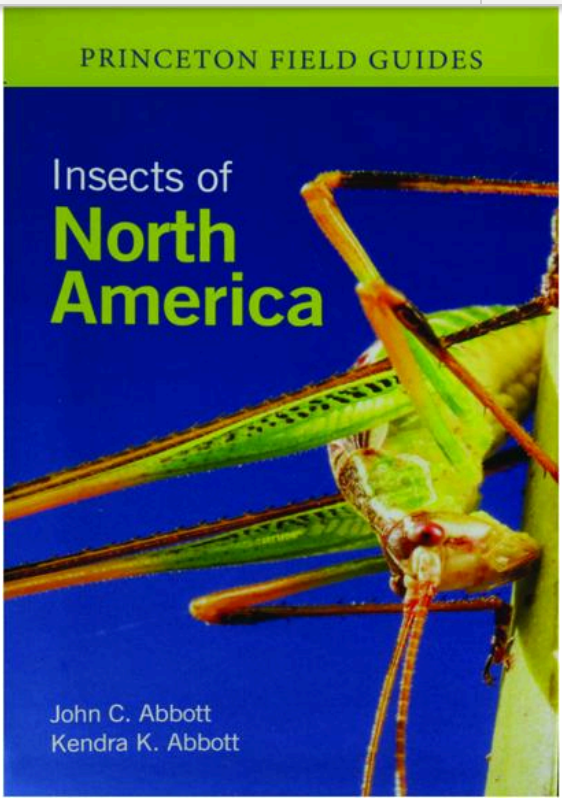
Series: Princeton Field Guides, 2023; 600 pages; 4.5 x 7.25 in.

Princeton University Press

ISBN: 9780691232850 (softcover)

Insects of North America by John C. Abbott and Kendra K. Abbott is a valuable

updated field guide on the insects of the United States and Canada. At 608 pages, this comprehensive guide is a great resource for beginners, amateurs, naturalists, or experienced professionals interested in learning more about the most diverse group of animals on the earth. With input from photographers, insect specialists, ecologists, and entomology colleagues, the guide covers the 783 families of insects known at the time of publication (May 2023). It includes over 3,700 color photographs, diagrams, and tables.



Besides basic information (defining "insect," as well as its structure, anatomy, growth, development, and metamorphosis), the guide includes insect classification, nomenclature, and diversity, and a brief discussion of global threats. It contains many attractive dichotomous keys, with photographs or diagrams for each couplet in the key. The main pictorial key to the insect orders is conveniently located on the inside cover of the guide. For each insect order, there is a similar pictorial key for the families found in that order. Most insect photographs are identified to the species level. There is also an illustrated glossary to complement the guide.

While this field guide is large, it cannot provide details about all insects covered. So, for more in-depth coverage of a favorite insect, family, genus, or species, individuals will still need to visit other regional or local field guides. Also, the focus of descriptions and photographs is on the insect adult stage. There is only selected detail about immature stages of some insect families.

Insects of North America is a practical field guide for all levels of users. It provides both valuable information and hours of fascination and enjoyment about insects and their immense diversity.

Questions? Comments? Email us at newsletter@armn.org

ARMN is a chapter of the Virginia Master Naturalists, a network of 30 volunteer-run chapters that span the state.