







# Hello! Interested in learning more about the plants and animals you see all around you?

This guide is a great place to start! It was created as an easy-to-use introduction to the plants and animals of the Anacostia River watershed. The guide provides a broad overview of the plants and animals you are likely to see in and around the Anacostia River and its watershed communities; however, it is not comprehensive.

Plants and animals in the guide include those that are native to the area (have always been here), those that have been introduced to the

area (non-native), and those that have been introduced and cause ecological harm (invasive). Also included in the guide are plants and animals that are listed as species of greatest conservation need in either Maryland, Washington, D.C., or both\* (native species that need a little love from us).

Non-native, invasive, and species of greatest conservation need have been identified on the following pages using the symbols below:



Non-native



Invasive



Species of Greatest Conservation Need

We recommend using the guide in one of two ways: either enjoy it by browsing cover to cover, or consult specific pages when you are journeying through the watershed. For further exploration and more detailed information on specific plant and animal species, we recommend consulting specialized keys that highlight particular taxa.

As always, we encourage all to "take only photographs, leave only footprints."

# **HAPPY EXPLORING!**

<sup>\*</sup>Exotic and invasive species were determined using information available on the Maryland Biodiversity Project webpage: https://www.marylandbiodiversity.com/

<sup>\*</sup>Species of greatest conservation need were determined using the State Wildlife Action Plans for both Maryland and Washington, D.C.

Maryland webpage: http://dnr.maryland.gov/wildlife/Pages/plants\_wildlife/SWAP\_Submission.aspx Washington, D.C. webpage: https://doee.dc.gov/service/2015-district-columbia-wildlife-action-plan



# to the Plants and Animals of the Anacostia River Watershed

# **CONTENTS**

- 1 Introduction
- 3 Who We Are
- 4 Map of the Anacostia River Watershed
- 5 Flora and Fauna

5	Aquatic Animals	11	Wetland Plants
6	Amphibians	12	Wildflowers
7	Reptiles	13	Trees and Shrubs
8	Birds	14	Vines
9	Mammals	15	Mushrooms and Fungi

- 10 Insects and Kin 16 Seasonal Phenomena
- 20 Appendix of Citizen Science Projects

18 How You Can Get Involved

22 Photographer Credits and Thank Yous

# Mission Statement

The Anacostia Watershed Society's mission is to protect and restore the Anacostia River by bringing partners and communities together to achieve a clean and safe Anacostia River for the benefit of all living in its watershed and for future generations.



## Who We Are

For 30 years, the Anacostia Watershed Society (AWS) has been working to restore the Anacostia River – once known as one of the most polluted rivers in the U.S. – back to health and vitality. We do this by showing people how we all affect the river and how our urban river has the power to enrich our everyday lives, even when we don't visit it.

A river doesn't exist in isolation: it comes from someplace, and goes somewhere, and is affected by everything along its banks and in its channel. So to make a real difference in the life of the Anacostia and its watershed communities, we work on many fronts – nature and culture – to make progress: we replant riverside land, boost river recreation, repopulate beneficial river animals, advocate for river-friendly policies, and teach children and adults how they can enjoy the Anacostia while helping it recover.

This field guide is one way we aim to bring together the communities of the Anacostia – animal, plant, and human – in a mutually beneficial way. We know that once the watershed's human residents "meet" the other residents we might find in and along the river, and when we tune in to seasonal changes around us, we appreciate our communities in new and sometimes profound ways.

Since 1989, the Anacostia Watershed Society has led a charge that sparked a dramatic turn-around for the Anacostia and its watershed communities. Just as "a rising tide raises all boats," a recovering river benefits the health and well-being of all the communities it touches, creating a virtuous cycle. When we enjoy and respect nature with a light touch, everybody wins!

We wish you many happy hours exploring in the Anacostia River watershed.

A watershed is an area of land that drains to a particular body of water. The red line below indicates the boundary of the Anacostia River watershed. All of the land within the red line drains to the Anacostia River. What happens in this 176 square mile area - home to more than 1 million people - directly impacts the Anacostia River and it's plant, animal, and human communities.



# **Aquatic Animals**

From fish to mussels, crayfish to snails, these creatures are perfectly suited to life in the watery world of the Anacostia River. Hidden to most, they live full and rich lives below the water's surface, creating an intricate web of life that helps define the Anacostia River.



American eel



Asian clam

Jorge Bogantes Montero



Striped bass



Pumpkinseed
Jorge Bogantes Montero



Mystery snail



White perch
Jorge Bogantes Montero



Brown bullhead



American shad



Eastern floater



Mummichog

Jorge Bogantes Montero



Northern snakehead



Crayfish

Jorge Bogantes Montero

# **Amphibians**

Soft, beautiful animals with unique life cycles that utilize both water and land – these are our frogs, toads, and salamanders. Serving as "canaries in the coalmine", they are often the first species to indicate that something in the environment could use our help.



Eastern
American toad



Eastern red-backed salamander



☐ Gray/Cope's gray treefrog

Lisa Powers



Northern green frog

Maddie Koenig

en

Southern
leopard frog

Jorge Bogantes Montero



Northern two-lined salamander

Rachel Gauza Gronert



Spotted
salamander
Jorge Bogantes Montero



Spring peeper



Wood frog

# **Reptiles**

Scaly, dry-skinned, and often misunderstood – these are our snakes, lizards, and turtles. From rodent-eating snakes to water-loving turtles, reptiles play an important role in the watershed. And what an assortment the river has to offer! Reptiles you won't find in the Anacostia River? Alligators and crocodiles.



Eastern box turtle © Krista Schlyer



Eastern painted turtle

Jim Brighton



Northern
red-bellied turtle



Red-eared slider



Common snapping turtle



Common five-lined skink



Eastern garter snake

ter .



Eastern ratsnake



Northern watersnake

Jeff Culler

# **Birds**

Birds are our feathered masters of the sky that many appreciate for their beauty alone. Songbirds, wading birds, waterfowl, and raptors - the Anacostia River has them all! Be sure to check out the river at different times of year to observe the full cast of winged visitors.



Bald eagle Will Parson



Barn swallows Maddie Koenia



Goose Jorge Bogantes Montero



Doublecrested cormorant lim Hayard



**Belted** kingfisher

Will Parson



Great blue heron

© Krista Schlver



Great egret Jorge Bogantes Montero



Herring gull Dan Rauch



Mallard Garv Van Velsir



Northern cardinal Maddie Koenia



Osprey © Krista Schlver



Red-winged blackbird © Krista Schlyer

# **Mammals**

From the big brown bat to the coyote, we share the Anacostia River watershed with these and a number of other furry creatures! Oftentimes secretive, these creatures sometimes make their presence known through things left behind - tracks, scat (poop), and homes they construct above or below ground.







Coyote Mark R. Johnson

Eastern cottontail Maddie Koenia







Groundhog Will Parson

Muskrat © Krista Schlver

North American beaver Isabelle Koenig









Virginia opossum © Krista Schlver

Common raccoon Jorge Bogantes Montero

Red fox Mary Sweet

Whitetailed deer Maddie Koenia

# Insects and Kin

Some of the smallest creatures on the planet, yet so important. From pollinators to decomposers, insects and their kin help us grow food and remove waste. They also provide beauty and are a food source for other creatures. These are just a few of a multitude.



Bumblebee © Krista Schlyer



Common whitetail



Eastern tiger swallowtail

© Krista Schlyer



Emerald ash borer ©USGS Bee Lab, Sam Droege



Fishing spider



Periodical cicada



Familiar
bluet

Jenny Glenn



Eastern yellowjacket



Monarch

Maddie Koenig



Mantis

Jenny Glenn

### **Wetland Plants**

Pickerelweed

Maddie Koenia

Adapted to life with "wet feet", wetland plants filter and clean the Anacostia River. They also provide food and shelter for all sorts of creatures, including young aquatic animals. These are some of the most common found along the Anacostia River.



Spatterdock

Maddie Koenia

Wild celery

Jorge Bogantes Montero

Wild rice

Jenny Glenn

# Wildflowers

A rainbow of blossoms can be seen along the Anacostia River throughout the year from early spring through late autumn. Wildflowers, especially native species, provide food for a variety of animals. These are a few of the most common wildflowers found in the watershed.



☐ Black-eyed susan



■ Boneset
Maddie Koenig



Garlic mustard



Common milkweed



Virginia spring beauty

Jorge Bogantes Montero



Queen Anne's lace

Jorge Bogantes Montero



Cardinal flower

Anacostia Watershed Society



L Chicory

Jorge Bogantes Montero



Goldenrod

Will Parson

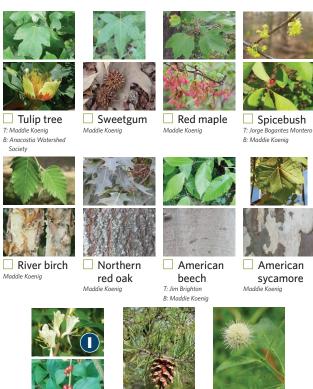


Jack in the Pulpit

Will Parson

# **Trees and Shrubs**

Trees and shrubs provide a number of direct benefits, including: fresh air, clean water, beauty, shade, and a home for wildlife! These are some of the most common woody species found in the Anacostia River watershed.



Virginia

pine

Bill Hubick

Amur

honevsuckle

Anacostia Watershed Society

Common buttonbush

Maddie Koenia

# **Vines**

Vines use the support of structures, including other plants, to survive and grow. These are some of the most common vines in the watershed. Unfortunately, a number of vines common to the watershed are invasive, causing ecological harm if allowed to grow unchecked.



bittersweet

Rill Hubick

# **Mushrooms and Fungi**

Often overlooked but totally fascinating - these are our mushrooms, yeasts, and molds. Fungi play an important role, harnessing nutrients from the soil to be used by trees and other plants. These are some of the most common fungi found in the watershed.







Serenella Linares



White-egg bird's nest fungus

Witch's butter Megan Romberg

Robert Solem

### Seasonal Phenomena

Natural occurrences and changes in the environment - leaves changing color in autumn, wildflowers blooming in spring - mark the gradual turn of the seasons, reminding us of the inevitable passing of time and need to appreciate each moment as it occurs. Each season along the Anacostia River brings with it the chance to see something new.

### **SPRING**



Osprey return to the river Jenny Glenn



White-tailed deer fawns are born Jorge Bogantes Montero

### SPRING



American shad return to the river MWCOG

### **SPRING**



Ephemeral wildflowers bloom in the woods

Anacostia Watershed Society

# SPRING



Spring peepers call in choruses

Rachel Gauza Gronert



Blackberries ripen along the riverbanks Maddie Koenia



Bats soar above the river in the evenings Matt Muir



Cicadas call during the day Emily Stanley



Turtle lay eggs on land

Jorge Bogantes Montero

# **EARLY FALL**



Young turtles disperse from the nest Maddie Koenia

### **FALL**



Asters and goldenrod bloom Maddie Koenia

**FALL** 



Monarchs migrate to Mexico Maddie Koenia



Mushrooms are abundant Serenella Linares

# WINTER



Male deer lose their antlers Maddie Koenia

# WINTER



Migratory ducks come to the river Maddie Koenia

### LATE WINTER



Wood frogs journey to vernal pools Maddie Koenia

# LATE WINTER



Skunk cabbage emerges in the wetlands

Jorge Bogantes Montero



# How to Get Involved

Community involvement is critical to achieving our mission, and our supporters are a big part of our success! Here are some ways you can get connected and be a part of the Anacostia river renaissance:

### VOLUNTEERING



As a volunteer you can help with many kinds of tasks that contribute to a healthy river and watershed: planting trees. gathering seeds, collecting trash, removing invasive plants, and maintaining rain gardens and other green infrastructure. Earth Day, in mid to late April, is our biggest

volunteer event of the year. You may volunteer as an individual, or set up a service opportunity for your workplace, civic, school or church group. Our website has more information about how to connect with or create a volunteer event.

### **GIVING**

Generosity flows downstream, and we are grateful for donations of all sizes! Your gift to AWS supports our education and restoration work now and contributes to the Anacostia River's vibrant future. It's easy and convenient to give online via our secure donation page.

### SOCIAL MEDIA

We love interacting on social media! Our friends and followers learn about river wildlife, see video clips and live feeds, and ask questions of AWS staff. Friend us on Facebook, follow us on Twitter, or post your own Anacostia adventures on Instagram.







#anacostiariver www.anacostiaws.org

### **EVENTS AND FESTIVALS**

Our Watershed Wednesday Happy Hours feature local speakers on a variety of river and watershed issues at different watering holes around the DC metro area, typically on the second Wednesday of each month. With our partner organizations, we also host special events throughout the year, such as the Anacostia River Festival, the Festival del Río, and our annual Tavern Toast. Check our online calendar and Facebook feed for details

### CITIZEN SCIENCE

AWS participates in the City Nature Challenge and hosts the Anacostia River BioBlitz to engage our community in gathering seasonal data on the variety plants and animals living in our urban area. See the Citizen Science page in this guide for more information.

### HAVE FUN ON THE ANACOSTIA

Get to know the river! From spring through fall we offer many opportunities to experience the Anacostia River via canoe, kayak, bicycle, pontoon boat, and skiff. Our free summer Discovery Series tours and Paddle Nights are open to the public; sign up for AWS email bulletins to learn when registration opens. We also have opportunities for group tours. Please contact us to inquire about arranging a tour for your workplace, congregation, Scout Troop, or other environmental or community group.







# **Appendix of Citizen Science Projects**

Citizen science is a research collaboration between scientists and members of the public. Citizen science projects allow the general public to contribute data to scientific projects. Below are a few notable citizen science projects we welcome you to participate in.

# **iNaturalist**

iNaturalist is a free smartphone application to learn about and identify species. With the app you can record and organize observations of organisms as well as interact with other nature enthusiasts. It encourages the participation of anyone that spends time outdoors, likes to take photographs and is interested in local biodiversity. It is a favored application for local, national and international bioblitzes like the:

Biodiversity of the Anacostia River Project: https://www.inaturalist.org/projects/biodiversity-of-the-anacostia-river

Bigger City Nature Challenge: http://citynaturechallenge.org/

Website: https://www.inaturalist.org/

# **FrogWatch**

With the FrogWatch project, volunteers collect and submit data on calling frogs and toads in wetland habitats. It is a national program with a local chapter in the District of Columbia run by the District Department of Energy and the Environment (DOEE). The data collected is reviewed by DOEE biologists and compiled for the FrogWatch USA in a national database where professionals and members of the general public can explore trends in frog and toad breeding across space and time.

Website (FrogWatch DC): https://doee.dc.gov/service/frogwatch National FrogWatch website: https://www.aza.org/become-afrogwatch-volunteer

# **Cricket Crawl DC/Baltimore**

The purpose of Cricket Crawl is to map out the occurrence of crickets and katydids through the cities and suburbs of Baltimore, Washington, DC and Northern Virginia. Participants can do so by tracking the sounds of these insects during the annual Cricket Crawl event held in late summer.

Website: https://www.discoverlife.org/cricket/DC/

# **The Great Backyard Bird Count**

Launched in 1998 by the Cornell Lab of Ornithology and National Audubon Society, the Great Backyard Bird Count was the first online citizen-science project to collect data on wild birds and to display results in near real-time. Now, more than 160,000 people from all over the world join the four-day count each February to create an annual snapshot of the distribution and abundance of birds. Volunteers count the numbers and species of birds they see for at least 15 minutes on one or more days of the count.

Website: http://gbbc.birdcount.org/

# **Creek Critters**

Created by the Audubon Naturalist Society in 2015, Creek Critters is a free smartphone application that helps users find and identify benthic macroinvertebrates like insects, crustaceans, mollusks, worms and other critters that live in freshwater streams. The app generates stream health reports based on the type of organisms found. The types of critters living in the local streams are indicators of the health of the waters.

Website: https://anshome.org/creek-critters/



### **Photo Credits and Thank Yous**

Many thanks to Jim Brighton and Bill Hubick with the Maryland Biodiversity Project, who willingly contributed their own photos to this effort. The MBP database of photos and records was invaluable to this little guide you are holding.

Website: https://www.marylandbiodiversity.com/

Jim and Bill connected us to the following MBP contributors who also gladly shared their photos, and to whom we are grateful: Matthew Beziat, Jon Cormorant, Jeff Culler, Mark Etheridge, Mark R. Johnson, Bonnie Ott, Richard Orr, Robert Solem, Emily Stanley, Mary Sweet, and Gary Van Velsir.

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Many thanks to Anacostia River champion, advocate, and photographer/writer Krista Schlyer, whose Anacostia River Watershed Photo Database was of immense value.

Website: https://anacostiaphotos.photoshelter.com/about/index

Many thanks to long-time Anacostia Watershed Society volunteer Jenny Glenn and her efforts to document everything that lives, leaps, grows, and thrives in the Anacostia River watershed.

Many thanks to Jim Havard, who has documented the changing Anacostia River in photographs and shares them through the Anacostia River Flickr photo group.

Website: https://www.flickr.com/groups/anacostiariver/pool/

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