

## Modest but Mighty: Mussels Go to School

By Robinne Gray, Gifts Officer The first day of school is always a momentous occasion, and this semester, AWS sent our first young freshwater mussels off to school. As part of our new Mussel Power program, this cohort of 100 juvenile Eastern pondmussels will live in classrooms in five different schools in the watershed.

With these musselsin-residence, students will learn to observe, understand, and care for river animals that at first glance don't appear interactive and engaging. But mussels do respond to their environment, opening

and closing their aperture "mouths" in accordance with water temperature and available food. Mussels also move



Clockwise from left: Students act out the mussel lifecycle; Students look at juvenile mussels,; High schoolers measuring

around, each using its muscle-like "foot" to burrow into the sand, move in or out of a current, or scooch closer or further from its fellow mussels.

Most important, mussels filter water as they eat, helping to remove pollutants and improving water clarity. By helping

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### **Track Your Travels with our Field Guide!**

By Robinne Gray

Fresh off the press for 2019! The Anacostia Watershed Society's new Beainner's Field Guide to the Plants and Animals of the Anacostia River Watershed will introduce you to the most common plants and animals you're likely to see while out and about on our neighborhood parks, streams, and trails.

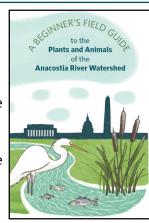
Featuring photographs from professionals and skilled citizen scientists, the Field Guide also notes which species are native, introduced, or

invasive, along with which are threatened by declining populations.

We hope the *Field Guide* will be a handy companion to all who visit the river, from casual trail-users who want to take a closer look at their surroundings; families who are teaching their children about the natural world; and regular visitors who might increase their enjoyment of the river by tuning in to seasonal changes.

Many thanks to the Chesapeake Bay Trust, Maryland Heritage Areas Authority, and Anacostia Trails Heritage Area for their support to make the guide possible!

Download a free copy of the field guide at the link below, or grab a print version at one



of our upcoming Watershed Wednesday happy hours or community events.

### President's Corner

by Jim Foster, President

Thanks to you, 2018 was not only the Year of the Anacostia, but also the most successful year we've ever had. as we



made tremendous strides towards a swimmable and fishable Anacostia River! Let me recap just a few of the successes that you made possible:

In 2018, we truly turned the tide on trash in the Anacostia. The first section of tunnel, part of D.C. Water's Clean Rivers Project, opened in March, and just in time for one of the wettest years on record. Thanks to the tunnel, from March through December 31, 4.57 billion gallons of raw sewage, and nearly 900 tons of trash, solids, and debris were kept from flowing into the Anacostia River!

In April we once again mobilized the community for our Earth Day Cleanup, with over **2,600 volunteers** fanning out across 37 sites in the watershed. And it all came together in June when, for the first time in our history, the **Anacostia River received a passing grade on our State of the River Report Card!** 

2018 also saw the natural systems of the watershed bouncing back strongly. Thanks to donors like you and hundreds of volunteers, we restored or enhanced over a dozen acres of wetlands and meadows so that they can function as natural filters of stormwater. We led the installation of 15,000 square feet of rain gardens and bayscapes, and for the first time, began reintroducing mussels to the river, in a pilot project that will filter 26 million gallons of water each year thanks to these hard working little creatures.

Finally, we saw record numbers of visitors experience the river directly and understand their own stake in restoring and protecting it. We hosted more than 3,000 guests on boat tours through our Discovery Series, and more than 4,400 students participated in Rice Rangers, our Shad restoration program, and the Saturday Environmental Academy.

Thanks to you, 2018 truly was the Year of the Anacostia, and thanks to you we will build on that momentum in 2019 and beyond. I look forward to joining you in these next few years as we dive in for the inaugural swim in the restored Anacostia River!

For the River,



### **Anacostia Watershed Society**

AWS is a nonprofit organization whose 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.

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## Capturing and filtering stormwater? That's RiverSmart!

By Bill Cocke, Project Manager

In 2018, we reduced the volume of stormwater pollution in D.C. by managing the District's RiverSmart Communities program. Through the program, local churches and nonprofit organizations can apply to have stormwater management projects installed on their properties at no cost. These projects not only capture and reduce polluted stormwater runoff, but also beautify the property and can lower property owners' water bills. Examples of these projects are removing and replacing asphalt or concrete with permeable pavers, constructing rain gardens, planting Bayscape gardens, and installing rainwater cisterns.

Last year, we completed five projects that capture and treat runoff from more than one acre of impervious surface (over 47,000 ft2). The completed projects include:

- Saint Francis de Sales Catholic Church on Rhode Island Avenue NE where we installed two rain gardens and replaced two large parking lots with permeable pavers.
- Peace Lutheran Church in Ward 7 where we installed a rain garden, a cistern, and a Bayscape.
- SB Works, a local nonprofit, in Ward 5 where we installed pervious pavement, a tree box system, and a cistern.
- Luther Place Memorial Church on Vermont Avenue NW where we installed a rain garden with additional Bayscape gardens.
- Foundary United Methodist Church on 16th Street NW where we installed a rain garden.

This year, we continue this work to reduce the impact of the urban envrionment with these new projects:

- Shepherd Park Christian Church on Eastern Avenue where we are installing a rain garden and Bayscaping.
- Dumbarton United Methodist Church iin Georgetown where we are installing a permeable paver system and bayscaping.



- Grace Evangelical Lutheran Church in Ward 4 where we are installing a rain garden.
- Saint Gabriel's Catholic Church in Petworth where we are installing a rain garden and Bayscaping

Do you know a place of worship or nonprofit organization that is interested in learning more about the RiverSmart Communities Program? If

so, please contact Josh Clark at jclark@anacostiaws.org.

Photos, left to right from top: Rain garden in process at Foundary UMC; St. Francis de Sales before RiverSmart; St. Francis de Sales completed permeably paved lot; St. Francis de Sales rain graden; Planting rain garden at Luther Place

## 30 Years of Progress

The Anacostia Watershed Society celebrates our 30th Anniversary and three decades of fighting for the Anacostia River. Let's take a look at what we've accomplished together...

> The early years of the Anacostia Watershed Society were marked with multitudes of cleanups. Because the river was not viewed as the treasure that it is, illegal dumping was a chronic problem. Today it is unimaginable to toss your fridge or car into the Anacostia River!

Our Earth Day Cleanup began as a partnership with the Seafarer's Yacht Club cleanup (which started in 1984!) and has grown from hundreds of volunteers to the thousands we see today. We used to have a trash sculpture competition, as seen below.

"I saw all the pollution in this miracle. The tracks of human civilization, everything we end up throwing away, the whole story of contemporary America, right there on the river's banks"

- Robert Boone, Founder

Plan for D.C. Theme Park Children's Island Agreement Said to Cheat U.S.

Vice President Al Gore at Earth Day 1997



Photo credit: Tess Krasne





Throughout the 1990s, the Anacostia Watershed Society brought

Washington Post, October 5, 1993 the community together with other environmental groups to form a coalition to stop heedless development of Kingman and Heritage Islands. In 2018, the southern portion of Kingman Island was designated a State Critical Wildlife Area at a ceremony with Mayor Bowser, and the area is beloved by local residents for offering a quiet refuge within the city. Note the thriving wetlands surrounding Heritage Island in the before and after pictures to the left!



After so many years of cleanups, we realized there was a gorgeous river we needed to re-introduce to the watershed communities! Above you see Mayor Tony Williams at the 2003 groundbreaking for the Anacostia Community Boathouse, a much needed amenity for rowers on the river. For many years the Anacostia Watershed Society held a Paddlesport Regatta, a fun day of friendly competition. Today you can explore the river with us through our Discovery Series or Pedal Paddle Palooza.

In 2016 Maryland Senator Ben Cardin and DC Representative **Eleanor Holmes** Norton cut the ribbon on the Anacostia River Trail extension through Kenilworth **Aquatic Gardens** up to Bladensburg Waterfront Park. Hundreds biked together to the "Trick or Trail" event. Former AWS President Jim Connolly was a leading advocate for the river's trails.

See more AWS history on Facebook (@anacostiaws) with our weekly #ThrowbackThursday feature!

## **Replenishing our Riverside Trees**

By Maureen Farrington, Marketing Manager

Throughout 2018, the Anacostia Watershed Society worked with hundreds of volunteers to plant 440 trees alongside the Anacostia River!

Volunteers from many different groups worked with us to plant these trees on the banks of the river to the east at Bladensburg Wetlands, and to the west at Dueling Creek, just south of Bladensburg Waterfront Park. Middle school students from our Saturday Environmental Academy helped kick off the plantings, and groups from the American University Washington College of Law, Accenture, Georgetown University, and the World Bank all came to help.

A variety of species of trees were planted, including Sweet Bay Magnolia, River Birch, and others, and the diversity should help the new grove not be as susceptible to diseases and pests.

Much of this work was to replenish the riparian buffer that had fallen victim to the Emerald Ash Borer, an invasive insect that is decimating riverside ash trees. Now with the Eastern Lampfly spotted as close as Pennsylvania, the work to restore tree canopy and cover takes on new importance.

Trees are our allies in the fight against climate change. By taking in carbon dioxide and releasing oxygen, trees help to keep a balance in our atmosphere. Trees are key to river health for not just those reasons, however! By providing shade and cooling down the waters below, trees help to make the river a healthy habitat for fish, toads, and other amphibians who become the food for larger animals such as bald eagles and osprey.

In 2019, we will be planting even more trees! Stay tuned on our email list or on our website for your chance to come and do this rewarding work. If you have a volunteer group who wants to help with tree planting (which we do in the spring and fall), use our group volunteer form which can be found online here:

anacostiaws.salsalabs.org/volunteergroupinformationform2019/



Photos: Staff transport the trees by boat to the site where students and volunteers plant them.



Saturday Environmental Academy

Applications for the summer 2019 program can be

submitted February 1st - March 31st via email to

anacostiaws.org/saturday-environmental-academy

The 2019 spring semester of the Saturday Environmental Academy starts on March 9! This 8-week program engages 6th, 7th, and 8th grade students in hands-on environmental education, culminating in a teambuilding overnight trip!

mkoenig@anacostiaws.org.



Visit the link above to apply!

Mussels from page 1

river water become cleaner and clearer, mussels are linchpins in a virtuous cycle: more aquatic plants can grow, providing food and habitat for fish and other river dwellers, ultimately helping to restore the entire river ecosystem.

If all goes as planned, by this summer the mussels will "graduate" into the Anacostia River. First they'll live in submerged baskets, where they'll acclimate to river conditions and grow larger before being set free to live in the Anacostia. Then, from their secluded spots on the riverbed, the mighty mussels will quietly do their important work, improving the water quality – and hopefully reproducing naturally in the river.

The Mussel Power project joins

AWS's other ongoing school-based environmental education programs like Rice Rangers (wetland restoration), Schools in Schools (shad restoration) and Saving Our Native Grasses (meadow restoration). Like our other successful programs, Mussel Power has three components: classroom lessons, a service project, and a class boat trip on the Anacostia River to help students understand how their actions connect to the big picture.

In this year's prototype Mussel Power program, each participating classroom received 20 mussels in an aquarium with sand, a bubbler to add oxygen to the water, calipers, a water quality meter, and a special shellfish formula to feed their mussels. In addition to feeding and monitoring the mussels, and keeping them happy and healthy

before their release into the "wild," the high school students will measure their growth and collect data on water temperature, pH, and clarity. The students gain practical experience in observation and data collection, and the data reported by the students will help with future stages of AWS's mussel propagation, including expanding Mussel Power to more schools and incorporating other native mussel species into the program.

Over time, the combined efforts of students and mussels will power us toward a swimmable and fishable Anacostia River.

Keep up with our mussel restoration program at anacostiaws.org/mussels

## Volunteer Registration opens Feb 19 Anacostia Watershed Society's



Saturday, April 13, 2019 9AM-12PM

### anacostiaws.org/earthday2019

Help stop pollution and restore the Anacostia River at the DC-area's largest Earth Day Cleanup!



#AWSEarthDay



slucas@anacostiaws.org

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Emily Conrad econrad@anacostiaws.org 301-699-6204 x111

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### Watershed Stewards Academy

Did you discover some stormwater problems in your neighborhood during last year's record-setting rainfall? Are you motivated to become an environmental leader in your community and help to fix these issues? Then you should sign up for the *Watershed Stewards Academy!* 

This eight-week program starts on March 12, and will be held on Tuesdays and Saturdays. Apply today to take the course that will equip you with the skills you need to tackle stormwater and other pollution issues in your community. For questions, email Matt Gallagher at mgallagher@anacostiaws.org or visit anacostiaws. salsalabs.org/wsaonlineapplication to apply!



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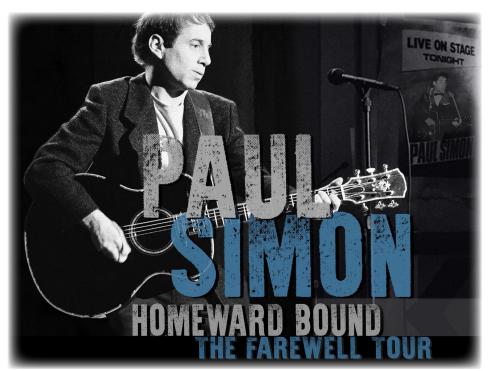
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# Donor Spotlight





We are incredibly grateful to have received a \$25,000 gift from the legendary artist Paul Simon! A longtime supporter of urban rivers and environmental education, Mr. Simon made a gift to non-profits in every city he visited on his Homeward Bound Tour last fall. The theme of rivers and waters courses through his music, and we are incredibly honored to receive his support.

Next time you're listening to his music, you can picture the Anacostia River or it's parks and streams and know that he is a fan of our favorite river, too!