

VOICE OF THE RIVER

Newsletter of the Anacostia Watershed Society

FALL 2019

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ANACOSTIA
WATERSHED
SOCIETY

Celebrating as We Count Down

By Robinne Gray, Gift Officer

A spectacular sunset view of the Anacostia River was the perfect setting for our Countdown to 2025 celebration held on September 16 at the District Winery. This signature event gathers the river community and honors local River Heroes, and this year's special Countdown also commemorated the 30th anniversary of the founding of the Anacostia Watershed Society! Mother Nature did her part by providing beautiful weather so guests could enjoy the outdoor terrace overlooking the water.

The generosity and goodwill of all involved was evident in the high spirits of the attendees, and the event raised over \$70,000 toward restoring the Anacostia watershed and its communities. We are grateful to our host District Winery; to our Gold Sponsors, Pepco and Monumental Sports and Entertainment; to the Nelson S. Talbott and Daniel DiTondo Foundations for the awards program; and to all of our corporate, individual, and household sponsors for making possible an inspiring and successful celebration.

As guests arrived, they were invited to get a taste of what it means to participate in local community science efforts such as the Anacostia BioBlitz, the Great Backyard Bird Count, and the Cricket Crawl. NBC4 newscaster Derrick Ward served as emcee for the main program, which included remarks by AWS founder Robert Boone and AWS president Jim Foster. A video profile of the 2019 River Heroes was shown before the honorees were invited on stage to receive their awards. These

individuals were nominated by their colleagues, friends, and neighbors for putting forth extraordinary effort to protect and restore the Anacostia River.

Congratulations to the 2019 Anacostia River Heroes!

Mary Didier, Anacostia River Civic Spirit Hero, was honored for leading volunteers at Kingman and Heritage Islands to assess the role of freshwater mussels in cleaning the Anacostia River

Roberto Sanchez Perez, Anacostia River Next Generation Hero, was honored for his work with End Time Harvest Ministries, the Town of Colmar Manor,

Continued on page 7



Top photo: Anacostia River Heroes Marilou Brooks, Roberto Sanchez Perez, and Mary Didier; Bottom: Daniel DiTondo Winners Zaida Slakey and Liev Dorn (Clara Merrick not pictured.)



Anacostia Adopt-a-block on Earth Day 2019

"I was so impressed by the 'roll up your sleeves' attitude I saw: the passion and dedication each resident shared by allowing us to join them in bettering their community."

Read more from Stacy Lucas, our Community Engagement Coordinator, on Page 6

President's Corner

by Jim Foster, President

As we wrap up celebrating another Countdown to 2025, we've got four big numbers to tell more of the story...



400 – that's how many trees we've planted at Metro Stations around the watershed in partnership with WMATA, as part of their comprehensive sustainability efforts. And as dry as it's been, we've been equally busy watering these saplings!

250 - corporate volunteers who have picked up trash, removed invasive species, planted native trees and helped us accelerate restoration of the watershed. Thanks especially to the World Bank, Bloomberg, Optoro, Compass Real Estate, and Clark Construction for sending so many volunteers to us.

533 - local DC residents who have explored the Anacostia River through the AWS Discovery Series in 2019. For thirty years we've been giving people first hand experiences of their river, which turns them into lifelong partners and advocates.

\$5 million! We're still celebrating the commitment by Exelon Corporation, in partnership with its local affiliates Pepco and Constellation, to donate \$5 million to support the construction of the 11th Street Bridge Park's Environmental Education Center! For more than 25 years, we have worked to educate school children about the wonders of the watershed and the wildlife it supports, and we are thrilled to partner with the 11th Street Bridge Park to program the Environmental Education Center when the park opens in 2023. This space will provide a new home for our education programs, which engage more than 5,000 students each year, and enable us to have deeper engagement, a more robust learning space, and closer connections to the communities along the river. Thank you Exelon, Pepco, and Constellation for supporting our vision of a vibrant public space designed to inspire the next generation of river stewards!

Last but not least, I want to thank everyone who came to or supported our Countdown to 2025 celebration in September. We do so much here everyday at AWS that it's a treat to reflect on our progress towards a swimmable and fishable river, and I'm so grateful to have shared that experience with so many special people.

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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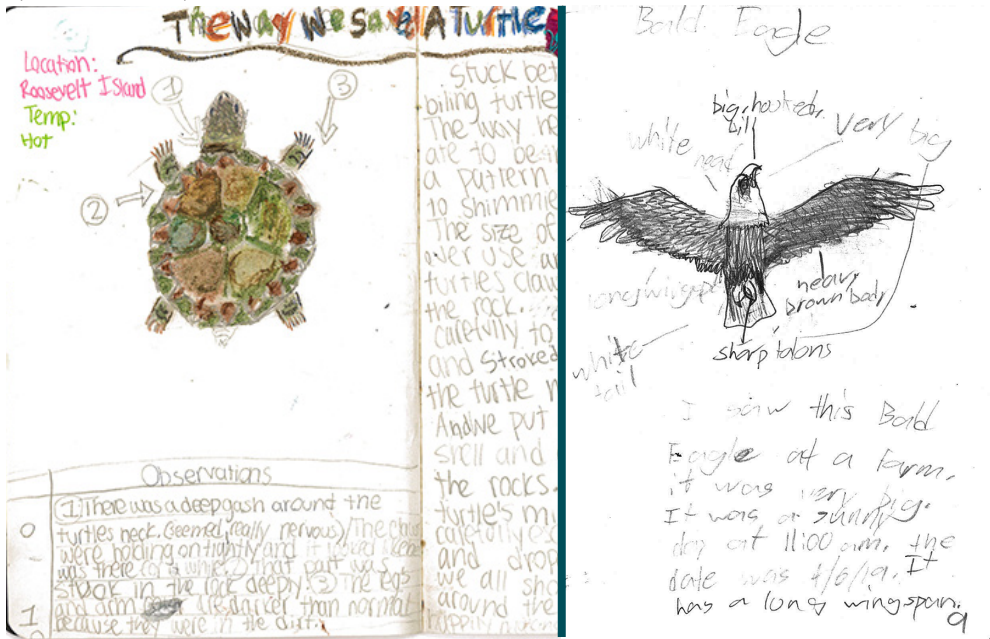
Masaya Maeda
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Front header image photo credit: Jim Havard

Nature Unplugged: Naturalist Notebooks Train the Eye, Hand, and Mind

By Robinne Gray



Pages from two of the Daniel DiTondo Award-winning Naturalist Notebooks.

A fourth grader peers at an insect, noticing its shape and color, the patterns on its body, the hairs on its legs. Another student looks closely at a daisy, counting its petals and gauging the proportion of the flower's center disk. Both students then sketch and make notes in simple black notebooks, going back and forth between the object and the page, capturing what they see.

Marrying art and science, the naturalist notebooks are a new component of AWS's successful Rice Rangers program – now in its 15th year – which teaches elementary school students about healthy rivers and wetlands. Thanks to funding from the Daniel DiTondo Foundation, Rice Rangers participants had the tools and guidance to make entries in their Naturalist Notebooks in both the classroom and the field throughout the spring.

Students get to keep their notebooks, and some participating schools give them an opportunity to present or display their notebooks before school is out. You can read more about the outstanding 2019 winners of the Daniel DiTondo Legacy award in the

Countdown article starting on page 1.

Keeping a field journal is a centuries-old practice, and it's a discipline technology has not made obsolete. It's one thing to snap a photo of an animal or plant, upload it to an app, and have image recognition tell you what it is. It's quite another to have to pay attention to the color of the ring around a bird's eye, whether leaves are growing alternately or opposite each other, or even to be aware of what phase the moon is in. In today's digital world, keeping a notebook with sketches and handwritten notes from the field sharpens students' observational skills, helping them learn the biological details of living organisms while giving them insight into the way ecological scientists work. Artistic talent and fancy prose are not required; curiosity, patience, and attentiveness are.

After such training, maybe one of the budding young naturalists will become the next Linnaeus or Audubon. But all of them will have gained skills that deepen their understanding of the world around them. And for some, it may sow the seeds for a lifetime of enjoying nature.



#GIVINGTUESDAY™

Get ready for
#GivingTuesday
on December 3!

The day to show the power of giving locally is back!

This year on #GivingTuesday, the Anacostia Watershed Society is asking you to help us reach even more people! On this special day of giving, we're asking our members and supporters to reach out to their friends to give them the opportunity to give to a local non-profit that gets results.

Make your gift go further by supporting us on this day through the Catalogue for Philanthropy! The Anacostia Watershed Society is eligible for special #GivingTuesday prizes, such as most donors in an hour! Stay tuned on our email list and website for more information.



THANK YOU TO
OUR DONORS!



MusselPower: One Year Later

By Jorge Bogantes Montero, Program Specialist:
Natural Resources and Maureen Farrington,
Marketing Manager

This past August, the Anacostia Watershed Society was awarded \$400,000 from DC's Department of Energy and Environment to flex our "mussels" even more and bring more of these amazing critters into the Anacostia River, and into the classroom. The story of how we have harnessed #MusselPower is powerful indeed...

In the beginning...

Jorge Bogantes Montero remembers the day in 2015 when it occurred to him that there might be something special about the Anacostia River and its freshwater mussels. Jorge was studying the submerged aquatic vegetation growth at Buzzard Point with former board member Tony Thomas. Tony stood on the shore, and picked

up a mussel he found there on the river bank. He looked a little more and found another one, and when Jorge came out of the water he noticed that the two shells were likely separate species.

"We knew there were mussels in the river, but we didn't know the extent of the biodiversity here," says Jorge, "And that day at Buzzard Point, we realized just how many freshwater mussels we have in the Anacostia River."

From there the Anacostia Watershed Society's #MusselPower program was born!

Just how do they filter?

Freshwater mussels have surprisingly survived and are breeding here in the Anacostia River. As bio-indicators – a species whose presence and reproduction shows a healthy habitat – they are demonstrative of the improving water quality conditions found in the river. And the ecology of freshwater mussels, particularly how they eat and grow, will only serve to make the river healthier overall.

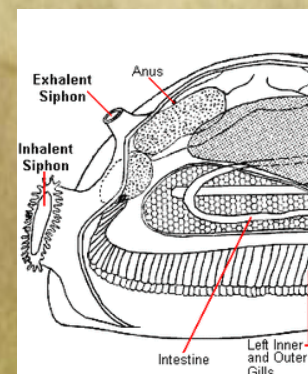
Mussels don't move a whole lot, and eat material that is suspended in water. This classifies them as "filter feeders" because their way of eating is similar to baleen whales where they eat by sucking in water containing sediment, bacteria, phytoplankton, and other organic matter. See the inset to the right to see how this works.

One interesting aspect of freshwater mussels is that they help settle sediment by filtering in small amounts by digesting material as they burrow and move. One challenge the Anacostia Watershed Society faces as we work on the issue of historical and current sedimentation in the Anacostia River is that dredging can stir up this material, leading to cloudy water that suffocates submerged aquatic vegetation and makes the water less habitable for fish. Mussels act as slow dredgers, and process the material they churn up as they go. Juvenile mussels even use their foot to sweep over rocks and pull in what they find, and sediments help them grow their shells.

The Mechanics of



1. Water with plankton, sediment enters the incurrent siphon.
2. It then goes to the gills where particles are separated. The water is then filtered, separating the particles from the oxygen from the water.
3. Next it enters the mussel's body where nutrients and plankton are filtered. Rejected matter is released through the excurrent siphon.
4. The next stop is the mouth where the food enters the stomach.
5. Then the plankton, nutrients enter the stomach where they are digested.
6. It then goes to digestive organs for more breakdown to be able to absorb the nutrients.
7. In the intestine the proteins are captured and sent to the blood.
8. Finally, the waste material is released through the excurrent siphon.



Mussel Diagrams used with

Learn more about
Mussel program at
anacostiaws.org



© KRISTA SCHLYER

Freshwater mussel in the Anacostia River. Photo credit: Krista Schlyer

f Mussel Filtering



iments, and bacteria enters

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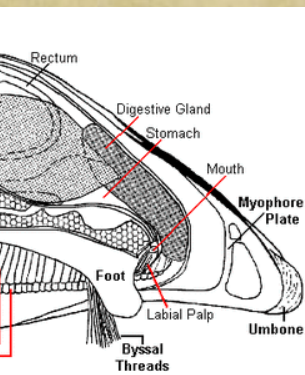
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nts, and sediments go are digested and broken

gland where it undergoes e to pass to the intestine.

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permission from molluscs.at

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Growing and Thriving

Last year we began our pilot program to propagate mussels in the Anacostia River. We had studied enough to know that they could survive here, and by increasing the population we hope to harness the incredible filtering power of these critters to help the whole river.

At eight sites along the river, we put approximately 8,700 native juvenile mussels in baskets and monitored their growth for a year. We are pleased to report the high survival rate, of 91.8% of the mussels growing into adulthood!

With the mussels living in different water conditions along the river, growth rates varied by site. The average shell length across all sites and species was a healthy 2.2 inches. While some sites saw significantly more growth than others, like Kingman Marsh near Langston Golf Course with one husky specimen reaching over 3 inches, all the sites saw the juveniles mature into adults.

On September 30, our #MusselPower program got a huge boost when we released around 2,000 more freshwater mussels into the Anacostia River. We were also excited to partner with DC water and put 5,600 juvenile mussels near the Blue Plains treatment plant. A single adult mussel filters 10-20 gallons of water a day, so if the entire 9 mile stretch of



See the mussels grow!
The photo above to the left shows Eastern Pond Mussel (top) and Eastern Floater (bottom) juveniles when we put them in the river in August 2018.

To the right, you can see the same two species in one year later in August 2019, and just how much they grew throughout the year!



the Anacostia River had mussels beds, we're looking at the filtering capacity of 37.5 tons of particulates removed from the water per year! That's like an Earth Day Cleanup's worth of trash, except it's food for an unsung species in the river.

We're also looking at year two of bringing mussels into classrooms across the watershed. Last year we worked with students of all ages - putting tanks of mussels in their schools, or getting them out to the monitoring sites to help us measure and count them.

Are you interested in helping with our mussel efforts? You can sign up to take part in special mussel events by going to <https://www.anacostiaaws.org/what-we-do/river-restoration-projects/habitat-restoration/mussel-restoration.html> and signing up for the email list there.

Hurray for #MusselPower!

#MusselPower Impact

8,700 new mussels introduced so far
130,500 gallons per day of filtering power



That's the equivalent of 48 olympic-sized swimming pools of filtered water each year!



154 Volunteers who placed the baskets and monitored the mussels' growth



8 different species found in the river, showing the strength of biodiversity



315 Students engaged in mussels in schools



In just a year, the mussels have grown nearly 4-5X their size! (Actual size shown above)

Everyone Plays a Role for a Cleaner River

By Stacy Lucas, Community Engagement Coordinator & Maureen Farrington

From adopting-a-block in Historic Anacostia, to rallying Lamond-Riggs residents to support new stormwater installations, the Anacostia Watershed Society is engaging watershed communities to help the Anacostia River.

As the Anacostia Watershed Society's Community Engagement Coordinator, life-long DC resident Stacy Lucas spends her days out in watershed neighborhoods. Let's sit down and find out more about the incredible work she is doing!

MF: What are you most proud of so far in your job doing community outreach?

SL: There have been so many great moments that it's hard to pick one! One project that stands out is the Community Stormwater Project to build watershed awareness. With support from the Department of Energy and Environment, we were able to work with communities like Lamond-Riggs Civic Association, Langston Civic Association, and Historic Anacostia Block Association and Ketcham Elementary 4th graders. With my coworkers, it was a long process of going to all sorts of community meetings to listen to the needs of the people who live there in order to work with the neighborhoods to address their concerns. As part of this outreach, I worked with community members to plant native trees, paint storm drain murals, and perform community cleanups. Plus I got to take these volunteers on a boat ride to see the Anacostia River - some of them for the first time! I was so impressed by the "roll up your sleeves" attitude I saw: the passion and dedication each resident shared by allowing us to join them in bettering their community.

MF: What was the most memorable adopt-a-block session you've done yet?

SL: The one that sticks out the most is the Adopt-a-Block Earth Day Cleanup of 2019 in Ward 8. We partnered with We Act Radio, an organization deeply



Photos from top: Students take a boat trip; Ms. Earth Day at the adopt-a-block; storm drain

rooted in the community who was gracious enough to allow AWS to utilize their space for our headquarters for the day. When we arrived for the cleanup, we all got in a circle, shared our names, what part of the city we lived in, and what we did. But, most importantly, each person spoke about the purpose of taking part in the cleanup and how much it meant for them to be "active" within their communities. The moving moment came when everyone realized at the end of the discussion, just how much we all shared in common about wanting a healthy community that we

could be proud of, not just for ourselves but for our future.

MF: What are you excited about working on next?

SL: Wow! There so many projects and programs I am already excited about, but I would have to say I'm most excited about working on our Earth Day Cleanup for 2020 on April 25th! After spending this last year working so closely with the people who live here in the watershed, I can sense the growing excitement for the Anacostia River.

Prince George's County Commits to Treating and Teaching about Stormwater

By Ariel Trahan, Director of River Restoration

An amazing thing is happening at Prince George's County Public Schools (PGCPS) that bodes well for the future of our waterways... Not only are schoolgrounds being retrofitted with raingardens, cisterns, and other stormwater solutions, but these new spaces are serving as living laboratories where teachers can give real-life examples to students about the importance of this work.

This is happening in our Treating and Teaching program, which is a key piece of the Clean Water Partnership, a 30-year comprehensive plan to meet stormwater regulatory challenges.

How does this work? The Anacostia Watershed Society holds stormwater workshops with teachers, showing how they can use the schoolyard as a teaching tool. Then the teachers can collaborate with their students to plan the design, including selecting native plants to put in their new Bayscapes. As Jahanna Levin, third grade teacher at Calverton Elementary School said, "I truly believe that this space helped our students take ownership of the outside."

But it doesn't stop there... we all know who serves as the quiet hero to many schools: the building supervisor. We acknowledge their crucial contribution, and teach them about this new stormwater solution on the grounds they manage. We take them out on the river, giving these hard workers a special insight to the effects of this extra effort.

Not only that, as part of this program, the Anacostia Watershed Society hosts a Student Environmental Alliance Youth Summit for PGCPS high school students. At this event, we show students the importance of this work by engaging students in a boat tour of the Anacostia River, and also facilitate their participation in restoration activities. Not only that, we make sure to tell these rising environmental stewards about the green job opportunities that exist in the world when they've completed school.

We are thrilled to announce that the Clean Water Partnership has made a commitment of \$505,000 to fund the Treating and Teaching program for the 2019-2020 school year. This will allow us to continue to deeply engage teachers, students and building supervisors with the stormwater management facilities being installed on their campuses. Treating and Teaching is a partnership between a diverse group of local stakeholders including Prince George's County Public Schools, Bradley Site Design, Low Impact Development Center, Neighborhood Design Center, Out Teach and the Maryland Association of Environmental and Outdoor Education.

[Read more about the Clean Water Partnership on their website: thecleanwaterpartnership.com](http://thecleanwaterpartnership.com)

Countdown from page 1

and Bladensburg Waterfront Park doing trash cleanups and introducing other teens to the joys of the river and the outdoors.

Marilou Brooks, Anacostia River Educator of the Year, is a science teacher at Gladys Noon Spellman Elementary School. Marilou was honored for her years of service in our Rice Rangers and Shad Restoration programs. Her work is above and beyond what she needs to do, even piloting the Anacostia Watershed Society's Mussel project.

Bruce McNeil was honored

posthumously with a special award for his 30 years of work documenting the nation's capital waterways. His environmental fine art photography of the Anacostia River emphasized the plight of the environment.

And **Amy Johnson** was also honored posthumously with a special award, for being one of the first teachers to participate in Anacostia Watershed Society's teacher training, Rice Rangers program, and River of Words. She continued on to also work with our Shad Program.

New this year was the Daniel DiTondo

Legacy Award for elementary school children who created Naturalist Notebooks (read more about these nature journals on page 7). This year's winners were Clara Merrick (Grand Prize), and Zaida Slakey and Liev Dorn (Runners Up).

It takes a community to restore a river. Thanks to all of you – our volunteers, partners, and supporters – the Anacostia River is making steady progress toward being swimmable and fishable by 2025. We hope you'll join us at next year's celebration as we count down to our target date!



Photos from top: Students prepare a raingarden/outdoor classroom; Teachers attend a training



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Fall 2019 Edition

MATCHING GIFTS

An easy way to double – or in some cases even triple – your support of a restored Anacostia River is to participate in a matching gift program. Several employers in our metro area generously match the charitable contributions of their employees. Some also match the gifts of spouses and retirees.

Some companies that match gifts are listed below. Your company may match, too!

- | | | |
|--------------------|-------------------------------|---------------------------|
| • Apple | • Goldman Sachs | • Morgan Stanley |
| • Bank of America | • IBM | • Norfolk Southern |
| • Bloomberg | • International Monetary Fund | • Pew Charitable Trusts |
| • Fannie Mae | • Jones Lang LaSalle | • Tetra Tech |
| • Gartner Inc. | • McKinsey & Company | • United Healthcare Group |
| • Gates Foundation | | |

Making your matched gift can be as easy as 1-2-3:

1. First, check with your company's Human Resources department. If your employer has a matching gift program, you'll typically be given a form to fill out and send to AWS along with your donation.
2. Next, make your own gift to AWS, and send the matching gift form to us.
3. We will verify your gift and return the form to your company, which will then issue a matching gift contribution to AWS!

The Anacostia Watershed Society's Tax Identification (EIN) Number is 52-1666511