

# VOICE OF THE RIVER

*Newsletter of the Anacostia Watershed Society*

SUMMER 2020

VOLUME 29, ISSUE 2



ANACOSTIA  
WATERSHED  
SOCIETY

## 2020 State of the Anacostia River Report Card: River Rebounds, Earns Highest Passing Grade So Far

*By Maureen Farrington, Marketing Manager*

For the second time in three years, the Anacostia River has received a passing grade on our annual State of the Anacostia River Report Card!

Led by a complete resurgence in the river's underwater grasses, or Submerged Aquatic Vegetation (SAV), and actions taken by local jurisdictions to reduce pollution in the river, the data overall shows a positive trend towards a swimmable and fishable Anacostia River.

The incredible improvement in SAV is the success story for the 2020 report card. During the wettest year on record in 2018, grasses in the river were well below the 20 acre threshold set for a score of 100% (the 2019 score for this parameter was only 31%). We were stunned to discover that the Anacostia River is now home to 92.6 acres!

The score for fecal bacteria also greatly improved from last year, going from 39% to 60% in just a year. While the lower score may have been due to the rains of 2018, we may also be seeing

the positive improvements due to the completion of the first tunnels of DC Water's Clean Rivers Project, which have, to date, prevented more than 7 billion gallons of combined sewage and 3,500 tons of trash from entering the Anacostia. With the completion of the Northeast Boundary Tunnel in 2023, we anticipate a consistently positive trend.

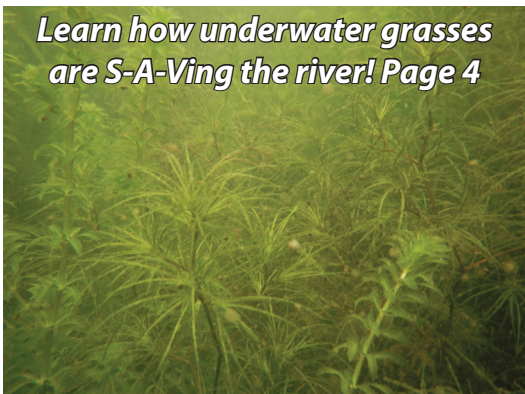
The success of our #MusselPower program is among the qualitative signs of a cleaner Anacostia River. That mussels are growing and reproducing in our river shows its water quality is a healthier habitat for them and other wildlife! Trail cameras have captured footage of river otters, coyotes, and other rebounding creatures at the top of the food chain. Additionally, we are seeing wetland plants naturally emerge along the river. Wetlands act as kidneys to the Anacostia River, and AWS has worked to restore more than 20 acres over the years. Now, we

are finally seeing these plants begin to grow on their own in certain spots along the river, and they are thriving!

While we are encouraged by this grade, we know there is still much to do to get to a truly clean and healthy Anacostia River by 2025. Non-point source pollution (stormwater runoff) remains the biggest threat to the river. With the COVID-19 crisis, local jurisdictions are rolling back environmental protections like bag fees, which could set back our progress. We must keep it a priority to care for our local environment, and work to protect and restore our favorite river.

| 2020 ANACOSTIA RIVER REPORT CARD        |                              |       |       |                  |
|-----------------------------------------|------------------------------|-------|-------|------------------|
|                                         |                              | SCORE | GRADE | MULTI-YEAR TREND |
| Water Quality Indicators (Quantitative) | Dissolved Oxygen             | 33%   | F     | ↓                |
|                                         | Fecal Bacteria               | 60%   | D-    | ↑                |
|                                         | Water Clarity                | 52%   | F     | ↑                |
|                                         | Chlorophyll <i>a</i>         | 81%   | B-    | ↑                |
|                                         | Submerged Aquatic Vegetation | 100%  | A     | ↑                |
|                                         | Stormwater Runoff Volume     | 60%   | D-    | ↓                |
| Remediation Indicators (Qualitative)    | Toxics Remediation           | 55%   | F     | ↑                |
|                                         | Trash Reduction              | 62%   | D-    | ↑                |
| OVERALL GRADE                           |                              | 63    | D     | ↑                |

**Learn how underwater grasses are S-A-Ving the river! Page 4**



## Staff Corner

*The President's Corner feature has been replaced in this issue with a message from the Anacostia Watershed Society staff.*

The Anacostia Watershed Society mourns the senseless slayings of George Floyd, Breonna Taylor, Ahmaud Arbery, and countless other innocent black lives that have been unjustly ended due to police brutality and the structural racism that enables it.

We mourn the tragic death of Kelvin Tyrone Mock, a child who died while playing in the burning trash dump at Kenilworth that served as his neighborhood playground more than 50 years ago that inspired a movement for environmental justice for the Anacostia River and its surrounding communities.

For decades, the plight of the river has mirrored the plight of the people who reside along its banks. It was not by accident or coincidence, but by design, that it served as a dumping ground for those with power and a swimming pool for those without. The same systems of racial and economic inequity that caused the river to become polluted have also been used to systematically disenfranchise and harm black people living in our community.

***We feel and acknowledge the pain and anguish of those hurting in our community, and we stand with you in fighting for justice and peace.***

As an organization, we will continue to learn and evolve in order to achieve the justice we seek and advance our vision of a restored Anacostia River where all can safely swim in its waters and fish from its banks. We will commit to share our platform and lift up the voices of the communities we serve, and we invite you to engage in dialogue with us, so that we can learn how to better combat the forces that oppress and stand in the way of progress.

Working together, we can heal our river, our watershed, and our communities. The Anacostia River has taught us resilience, and it feeds our hope for a brighter future for all.

### **A Small Needful Fact**

by Ross Gay

Is that Eric Garner worked for some time for the Parks and Rec. Horticultural Department, which means, perhaps, that with his very large hands, perhaps, in all likelihood, he put gently into the earth some plants which, most likely, some of them, in all likelihood, continue to grow, continue to do what such plants do, like house and feed small and necessary creatures, like being pleasant to touch and smell, like converting sunlight into food, like making it easier for us to breathe.

## 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.*

4302 Baltimore Avenue  
Bladensburg, MD 20710  
www.anacostiaws.org  
301-699-6204

### *President & CEO*

James R. Foster

### *Board of Directors*

Elissa Feldman, Chair  
Neil S. Lang, Vice Chair  
Kathryn Petrillo-Smith, Treasurer  
Lars Hanslin, Secretary  
Nina Albert  
Donna D. An  
Maria Earley  
Michael J. Lederman  
Kathleen Linehan  
Cynthia L. Quarterman  
Matthew Ries  
Nigel Stephens  
Michael Tilchin  
Ken Williams

### *Founder & Honorary Member*

Robert E. Boone

### *Staff*

Erin Borgeson Castelli  
Senior Vice President/Chief Operating Officer

Ariel Trahan  
Director of River Restoration Programs

Emily Conrad  
Director of Development

Reyna Askew  
Manager of Community-based  
Restoration

Kendra Bierman  
Environmental Educator

Colleen Burkhardt  
Office Assistant

Jorge Bogantes Montero  
Program Specialist: Natural  
Resources

Emily Castelli  
Development Coordinator

Bill Cocke  
Project Manager

Catherine Estes  
Program Director, Saturday  
Environmental Academy

Maureen Farrington  
Marketing Manager

Robinne Gray  
Gift Officer

Steve Kinzer  
Maintenance Engineer

Chris Lemieux  
Manager of Education

Stacy Lucas  
Community Engagement  
Coordinator

Masaya Maeda  
Water Quality Specialist

Bryan McKnight  
Program Specialist: Green  
Infrastructure

## Intrepid AWS Educators Connect Students to the Anacostia River from Home

By Ariel Trahan, Director of River Restoration

As much of our lives have shifted to the virtual space, AWS has nimbly adapted our environmental education programs to meet the needs of students, teachers, and families who are all navigating this new way of learning.

In early April we launched a "Learning from Home" portal on our website with all kinds of lessons, resources and videos to connect learners of all ages to the watershed from the comfort of their own home. We shared resources that relate to our core spring education programs: Rice Rangers, Shad, Mussel Power, as well as our Saturday Environmental Academy. In addition to providing these resources that students, teachers and families can access and complete at their own pace, we were also able to conduct some virtual class visits with some of our partner schools, teaching students about the wonders of the watershed through Zoom!

As many of you know, working with this new technology comes with its hurdles. Chris Lemieux, Manager of Education, turned his home into a makeshift remote teaching station, even working out a way to use two cameras (one on himself, one on his teaching material) so that he could best work with the children. Used to a lively classroom in his lessons, Chris had to learn to teach without the interruptions of curious students.

While we were able to hold our first class in-person back in March, the

Saturday Environmental Academy (SEA) was affected early by COVID-19 closures. Catherine Estes, Program Director, was quick to convert these weekly classes to "Session Connections" both on Facebook and via email. Students even sent along pictures of themselves doing the activities.

Right now, more than 30 adult students are enrolled in our online Watershed Stewards Academy (WSA), and about halfway through their classes! As leader of WSA, Reyna Askew, Manager of Community-based Restoration, sought out digital collaboration tools that can help recreate the feeling of being together in a classroom.

Another way that we were able to stay engaged with students, teachers, and families was through our Naturalist Notebook Challenge. During a regular spring the Naturalist Notebook Challenge is a component of our Rice

Rangers program, funded by the Daniel DiTondo Foundation, where students learn to document their observations in the natural world in a naturalist notebook. Each year we select winners of the Naturalist Notebook Challenge that are honored at our Countdown to 2025 event. This year we decided to open up the Naturalist Notebook Challenge to all K-12



*Saturday Environmental Academy students at their first meeting in March*

**Check out the new online portal here:**  
[anacostiaws.org/learning-from-home](https://anacostiaws.org/learning-from-home)

students to encourage students to make observations of the natural world while participating in social distancing. We were delighted when Brent Elementary School, a long time AWS partner school, had a Naturalist Week for the last week of April and encouraged all of their students to participate in the challenge.

While we missed being out on the river and in the wetlands with students this spring, we were thrilled to be able to continue to provide students, teachers, and families with ways to learn about and connect to the Anacostia Watershed.



*AWS Educator Chris Lemieux's remote teaching setup at his home; the the left you see plants and other tools for teaching about stormwater*



*A student works on their Nature Journal*

# How Underwater Grasses are SAV-ing the River

By Jorge Bogantes Montero, Program Specialist: Natural Resources and Robinne Gray, Gift Officer

The Anacostia River received its second passing grade and its highest score ever in our State of the River Report Card – hard evidence that the water quality in the river is improving. Many factors affect the water quality, and this year, the factor that contributed the most to the higher grade is the return of submerged aquatic vegetation, commonly referred to as SAV. To simplify the concept they are also known as ‘underwater grasses’ although none of these aquatic plants belong to the grass family. There are about 20 species in the Chesapeake Bay watershed, and at least 9 species in the Anacostia River.

We know that trees clean and freshen the air, and that the roots of some plants are known to help filter toxins out of soil. Even houseplants can improve indoor air quality. But the contributions of humble SAV tend to go unsung because these plants grow entirely underwater. Resembling seaweed, SAV do not have prominent leaves or showy flowers. These members of the green world are generally considered so undistinguished that they are not even referred to by their individual names, but only as a group. On the next page, we’ll introduce some of the individual species that are helping to improve the Anacostia River.

Like their fellow river-dwellers the freshwater mussels, SAV plants do their work quietly and out of view. And like mussels, SAV both needs clean water to live and, once established, plays a role in cleaning the water further. SAV provides a lot of benefits or “ecosystem services” to the river: it adds oxygen to the water, stabilizes both sediment and shorelines, chemically metabolizes and removes nutrient pollution, and creates habitat by feeding and sheltering fish, waterfowl, and other wildlife. One species of local duck owes its scientific name to a SAV species. The canvasback (*Aythya valisineria*) scientific name’s epithet ‘*valisineria*’, comes from *Vallisneria americana*, the scientific name for wild celery, one of the duck’s preferred foods. The wild celery happens to be one of the species we have propagated in the Anacostia River!

Why is SAV bouncing back now? Because the river is getting clearer and cleaner! Like all plants, SAV needs light to photosynthesize and thrive. Urban rivers like the Anacostia usually face multiple problems, including polluted runoff and churned-up water following

rainstorms. When the river water is clouded with suspended sediment particles and excess chemical nutrients, SAV does not get enough light to grow, and chemical pollution may overpower it. Recent improvements to the Anacostia River – particularly the Clean River Tunnel named Nannie Helen Burroughs (after the famous DC educator) and improved stormwater capture and treatment – have reduced these assaults enough for the SAV to make a comeback. And that is fantastic news for the health of the river’s aquatic habitats.

According to a report on the state of SAV in District waters during 2019, released by the District Department of Energy and the Environment, the largest SAV bed (**31 acres!**) in DC was located at Kingman Lake south of Benning Road and between Heritage and Kingman Islands. The Potomac River did not have any SAV in 2019 except for a small area of less than 0.01 acre at Oxon Cove. Almost all the SAV acreage observed in DC (a total of 92.6 acres) was in the Anacostia River. That’s more than 4 times the goal of 20 acres of SAV for the Anacostia River, and why it got a score of 100% in the 2020 Anacostia River Report Card!

Now let’s meet 5 underwater grass species from the river:



Water stargrass at James Creek Marina



Jorge collecting native SAV samples at Mattawoman Creek in 2017



Hydrilla, left, and Wild Celery, right

## Hydrilla: Friend or Foe?

Opportunistic non-native species are often the first to colonize a compromised environment. An escapee from aquariums, *Hydrilla verticillata*, has moved into local rivers, to the dismay of some boaters and anglers. Also known as waterthyme, hydrilla grows quickly and reproduces in multiple ways, and it can grow in less-than-ideal conditions.

So how much of a problem is hydrilla? Biologists have differing opinions. Too much hydrilla will not only out-compete native species that are important to the food web, but will also take over in large beds, hogging the limited oxygen and reducing biodiversity. Its long stems can get caught in boat propellers and clog water and power intakes. Yet this vigorous plant may serve an important role in impaired rivers like the Anacostia. As one of the hardier species of SAV, hydrilla is an early indicator of improving water quality and may function as a “pioneer” that precedes other, native SAV with which it can coexist. Studies have shown that hydrilla is actually beneficial as habitat for fish and wildlife.

## Water Stargrass: Yellow Aquatic Meadows

During boom years for SAV in the Potomac and Anacostia rivers, like in 2016 and 2017, one can admire what looks like “floating meadows” on the water surface. An underwater vegetative growth so dense that

herons, egrets and shorebirds can actually walk on top for foraging. The lush vegetative growth of SAV is at the peak of its growth in midsummer, visible from above the water line. A closer look reveals yellow hues on those SAV patches, at some spots it is so abundant that it gives the notion of a floating wildflower meadow: that’s the bloom of water stargrass (*Heteranthera dubia*). Water

stargrass belongs to the pickerelweed family; a wetland plant we have also been propagating for years in the river’s tidal emergent wetlands. Even though water stargrass is a submerged aquatic plant, it blooms above the water’s surface. We have propagated this species at Buzzard Point.



## Coontail: A Plant from a Primitive Lineage

Coontail (*Ceratophyllum demersum*) belongs to the hornwort family, an ancient plant family that may have arisen from flowering plants that existed before the evolutionary separation between monocots and dicots, a long time ago. This plant has no real root system so it grows free floating. It has attractive foliage, which is why it is a popular plant in aquaria, with stiff leaves and fluffy-looking branches reminiscent of a raccoon tail. This is a tough plant that grows well in different habitats from our tidal river to ponds and lakes like the Greenbelt Lake where it is abundant. AWS has propagated this species at Buzzard Point, Kingman Lake and our tiny ornamental pond at our headquarters in Bladensburg, MD.

## Wild Celery: #NotReallyCelery!

Wild celery, also known as tapegrass (*Vallisneria americana*) is actually unrelated to celery (in the carrot/parsley family) and belongs to the frog’s-bit family, a mostly aquatic plant family. This is one of the plants we first started propagating 5 years ago at Buzzard Point. It is the most grass-like of our SAV species with its nice long, ribbon-like leaves and filiform flower/seedpod stalks. The stalks reach the water surface to show the nice tiny white flowers; the threads coil after pollination. The seedpods contain many tiny seeds and are produced in late summer/early fall. It is an important plant for many birds including (you guessed it!) the canvasback duck.

## Small pondweed: Tiny grass

Its scientific name *Potamogeton pusillus* describes it well, the epithet *pusillus* means small in Latin. It has delicate and unremarkable stems and leaves, and it is not as common as the other species mentioned. It was actually not observed in DC’s SAV monitoring during 2019. We have observed it at Buzzard Point in previous years. Both the seeds and foliage of small pondweed are a great food for birds like ducks and geese, muskrats, fish, and turtles.

## SAV and Climate Change

As the Anacostia River gets healthier, SAV will be a part of its rebounding ecosystems. But it’s not guaranteed that these plants can maintain their foothold. Like other aspects of the river’s fragile and altered ecosystem, they are vulnerable to the effects of extreme weather and higher temperatures that we are seeing globally with climate change. Heavier and more frequent rain means more turbid (cloudy) water; warming weather means less available oxygen in the river’s water column. As so many aspects of the river improve, it remains to be seen whether the improvements will outpace the effects of a changing climate.

## When Naturalists Go Wild

By Maureen Farrington and AWS Staff

What happens when a staff of nature lovers is forced to work from home? Check out some of the beautiful photos of nature captured by the team.



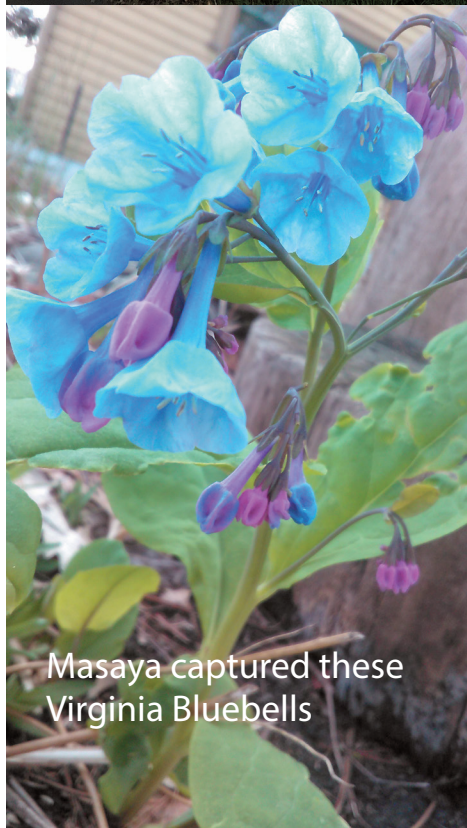
Ariel saw a moonrise over the Anacostia River



Catherine and her daughter went looking for critters!



Bryan saw an owl!



Masaya captured these Virginia Bluebells



Maureen saw her first oriole



Bryan caught a salamander



Emily Conrad saw a spring peeper



Masaya Maeda of AWS  
@MasayaMaedaAWS

I'm still cutting the huge dead ash tree killed by Emerald ash borers in the midst of Corona pandemic. I'm trapped by the trap task. #AnacostiaRiver #AnacostiaRiverStrong



12:49 PM · Apr 29, 2020 · Twitter for Android



And Ariel saw cormorants along the river

## Welcome Aboard, Kendra and Colleen!

By Kendra Bierman, Environmental Educator; Colleen Burkhardt, Office Assistant; Maureen Farrington

This spring, the Anacostia Watershed Society hired two new employees! Let's give a warm welcome to the newest members of the AWS team...



**Kendra Bierman, Environmental Educator:** I am a graduate of Juniata College, in Huntingdon, PA, where I majored in Environmental Science. Juniata is a very field-based school so I was able to gain a lot of experience in aquatic restoration work and wildlife management practices.

Over time, I really began to see the disconnect between science and the general public and began

to seek out opportunities in education to help bridge that gap. I have worked in various environmental education realms including: environmental camps, the Army Corps of Engineers as a conservation educator, and Robinson Nature Center as an environmental educator. I am so excited to now join all of you at AWS and continue pursuing my goal of helping as many people as possible learn and become engaged in the beautiful natural world.

In my free time I enjoy hiking, hammocking, and camping. I am a big fan of ethnobotany and foraging for wild edibles, as well as generally botanizing.

**Colleen Burkhardt, Office Assistant:** The outdoors have always been an important part of my life. From playing in the neighborhood creek with friends to summers spent on Assateague Island, the Chesapeake Bay and its tributaries have and continue to be a source of wonderment



and adventure for me. Growing up in Silver Spring, I was not aware that I lived within the Anacostia watershed (Northwest Branch), but this newfound knowledge has me excited to get more involved at the local level in advocating for this beautiful and unique river. I am excited that my role as Office Assistant will allow me to work with the different departments at AWS in a supporting role – I find a lot of value in helping others accomplish their goals in any and all capacities. I have not yet had the chance to explore the Anacostia's rich and diverse plants and wildlife but as an amateur gardener, I can't wait to learn about and become familiar with the native flowers and wetland plants.



ANACOSTIA  
WATERSHED  
SOCIETY

**Anacostia Watershed Society**  
*The George Washington House*  
4302 Baltimore Avenue  
Bladensburg, MD 20710

office: 301-699-6204  
fax: 301-699-3317  
info@anacostiaws.org  
www.anacostiaws.org

Non-Profit Org.  
U.S. Postage  
PAID  
College Park, MD  
Permit #1871

*Summer 2020 Edition*

The Anacostia Watershed Society acknowledges the generosity of the estate of Sara Kaufman of Washington, DC, who passed away last fall. Sara was a longtime AWS supporter.

Sara's gift supports the ongoing restoration of the Anacostia River by engaging community members in active stewardship efforts and ensuring that human, plant, and animal communities will thrive together in this urban natural area.

