The Marsh Wren

SINCE 1976 | THE FRIENDS OF DYKE MARSH | SPRING 2022

FODM 2022 Member Meetings

May 19 at 7 p.m., (online and in person) see p.1

October 26, 7 p.m., Bats

Calendar of Events

Every Sunday, 8 a.m., Bird Walks

May 7 and 21, **June 4 and 18** 10 a.m., Invasive Plant Control

June 25, Ecology Walk (limited to 20)

September 17, Trash Cleanup

See www.fodm.org and our Facebook page for details.

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Curbing Plastic Pollution

May 19 FODM Program

Plastic bottles are a major source of plastic pollution. Photo by Keegan Callender

From plastic bottles to plastic straws, from disposable diapers to fishing line, plastic in the environment is ubiquitous. Plastic litter represents 83 percent of trash on Virginia's beaches, reports the Virginia Aquarium. Over eight million tons of plastic enter the world's waters every year, the equivalent of a dump truck load of plastic going into the ocean every minute, one study found. It can take hundreds of years for plastic to decompose.

Join the Friends of Dyke Marsh on May 19, 7 p.m. EDT for a presentation on plastic pollution. Sarah Kollar, Outreach Manager of Ocean Conservancy's International Coastal Cleanup, will examine the plastic pollution crisis, the impacts on communities, wildlife and other natural resources and offer possible solutions to plastic proliferation.

After Ms. Kollar's talk, our colleague Kurt Moser, President of the Four Mile Run Conservatory Foundation, will give a brief presentation on their study of microplastic pollution in Four Mile Run. Microplastics are less than five millimeters in length (about the size of a sesame seed), according to the National Oceanic and Atmospheric Administration (NOAA). They come from larger plastic debris that degrades into smaller and smaller pieces or they are intentionally manufactured. Microbeads, for example, are very tiny plastic pieces that manufacturers add as exfoliants to health and beauty products like cleansers and toothpastes. Microplastics easily pass through water filtration and wastewater treatment systems, end up in waterways and threaten aquatic life.

Ms. Kollar works with a network of beach and waterway cleanup organizers, educators and others worldwide. She manages the preparation of materials for action-based solutions and maintains the Ocean Conservancy's data database. She has a bachelor's degree in biology and environmental studies from Eckerd College and has been with Ocean Conservancy for eight years.

This program will be online and in person at the Mount Vernon Government Center, 2511 Parkers Lane, Alexandria 22306. For the online presentation, please register at https://us06web.zoom.us/meeting/register/tZUlcu2orDopGNE_6R5-CGCg48IJ-sBdmiIO. After registering, you will receive a confirmation email containing information about joining the meeting.

Thank you to our cosponsors: the Alice Ferguson Foundation, Sierra Club Great Falls Group, the Four Mile Run Conservancy Foundation, the Friends of Little Hunting Creek, Friends of Accotink Creek and the Porto Vecchio Condominium's Waterfront Committee.

In Memoriam

Mary Jo Detweiler (1942-2022

Mary Jo Detweiler, former FODM board member, former director of the Prince William County Library system, holder of other varied library posts and a former River Towers condominium board president, passed away on February 25. In addition to performing many other community services, she served as FODM's archivist. With good humor and diligence, she spent countless hours taming FODM's years of records. Mary Jo approached our advocacy efforts with a keen but gentle diplomacy and was always positive. Family and friends will share remembrances on May 7, 4 p.m., at River Towers' Club Room, 6631 Wakefield Drive. FODMers miss her.

George Washington Memorial Parkway Superintendent's Message

BY CHARLES CUVELIER

The George Washington Memorial Parkway's resource management team offers a shout-out to the FODM volunteers who participate in the weed warrior program. We want to acknowledge the success of FODM's growing number of volunteers for weed warrior workdays for the Dyke Marsh area. This is in large part due to the recruiting of volunteers from members of the FODM. Invasive vegetation management is major issue for the parkway, and the volunteers improve the condition of the marsh and visual quality of visitors, driving the parkway or using the trails.

Setting Priorities

The second edition of the park Priorities and Actions Handbook is available online. It continues to provide direction on how we use our time, talent and fiscal resources for public benefit. You can read it here https://www.nps.gov/gwmp/learn/management/upload/NPSMagazine_Web-tagged-V2-Final-opt.pdf and be sure to check out the partner page with your logo.

App for National Parks

One app, every park at your fingertips. The NPS App is the new official app for the National Park Service (NPS) with tools to explore more than 400 national parks nationwide. Find interactive maps, tours of park places, on-the-ground accessibility information and much more to plan your national park adventures before and during your trip. You can download it free at the NPS App Store at https://apps.apple.com/us/app/national-park-service/id1549226484 or at Google Play, https://play.google.com/store.

We were pleased to join with you to celebrate National Park Week 2022 April 16 to 24. The theme was "Park Connections." We partnered with FODM on April 9 for the annual Alice Ferguson Foundation trash cleanup. We were pleased to see FODM also at the April 16 Mount Vernon Trail 50th Anniversary event and on April 23 at Supervisor Dan Storck's Environmental Expo. Thanks to the FODM for all your efforts.

U.S. Park Police, Emergency Number:
202-610-7500

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Board members can receive emails at info@fodm.org. *The Marsh Wren* is a publication of the Friends of Dyke Marsh, Inc., a nonprofit 501(c)(3) organization. Letters and submissions to *The Marsh Wren* are welcome. Send them to the address at left. Special thanks to Duncan Hobart for managing our website (www.fodm.org) and to Bob Veltkamp for the layout of this issue.

President's Message

Glenda C. Booth, President, Friends of Dyke Marsh

This spring people of all ages are delighting in watching "our" bald eagles at their nest near the Haul Road trail. On March 16, wildlife biologist Dan Rauch and the U.S. Park Police conducted a helicopter survey of bald eagle nests in the region. Rauch confirmed three active nests in Dyke Marsh, but we do not yet know how many chicks are in the nests. Over 200 people enjoyed the informative March 2 presentation by eagle expert Jeff Cooper. You can learn more on our website and see a recording.

For too many years, wetlands were considered to be dump sites for everything from tires to tea kettles. We thought those days were over, but on March 19, I found some mysterious, exotic shells, coral and rocks which seemed deliberately placed all together behind a log and covered with leaves near the Haul Road trail. Perhaps someone dumped their aquarium's contents there. Another person found what seemed to be drug paraphernalia. If you see suspicious activity or someone discarding things, notify the Park Police at 202-610-7500.

Shells found in Dyke Marsh. Photo by Glenda Booth

We are pleased that our efforts to re-open the Belle Haven Marina restrooms succeeded and thank Congressman Don Beyer, GW Memorial Parkway officials and Tim Staples, the marina manager, for their help. The restrooms are now open to the public, 9 a.m. to 5 p.m., seven days a week. Request the access code from marina office staff.

Celebrate Clean Water

2022 is the 50th anniversary of the federal Clean Water Act, a landmark law that establishes a system of standards, permits and enforcement aimed at achieving "fishable and swimmable" waters. In 1964, then U.S. President Lyndon Johnson called the Potomac River "a national disgrace." It is much cleaner today than it was then, but "it's not in the clear," warned Potomac Conservancy's Hedrick Belin last year. "It is still too polluted for swimming and fishing." The Potomac Riverkeeper Network invites everyone to help celebrate these 50 years of progress at events listed here: https://www.potomacriverkeepernetwork.org/.

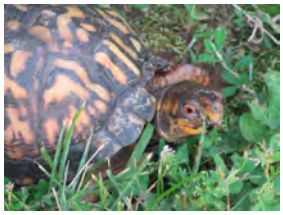
Tell Congress to Fund Parks

The National Parks Conservation Association (NPCA) urges everyone to ask their Members of Congress to provide more resources to our national parks. In the fiscal year 2023 budget request, the Biden administration requests $342 million or a 10.5 percent increase for the National Park Service (NPS). With this new funding, NPS could restore half of the more than 3,000 staffers lost over the last decade, according to NPCA. "Amid the ongoing global pandemic, our national parks continue to break visitation records but funding for them has not kept pace. This budget would reinvest in our parks and would start to bring them out of the financial hole they've been trying to dig out of for over a decade," said Theresa Pierno, NPCA president. You can find your members of Congress at www.senate.gov and www.house.gov.

Celebrate Turtles

Turtles have long intrigued us, from ancient petroglyphs to children's book heroine, Myrtle the Turtle, to fictional superheroes Teenage Mutant Ninja Turtles. May 23 is World Turtle Day (see www.worldturtleday.org/.) Why do we need a World Turtle Day? Turtles need protection, say wildlife officials. Virginia has 25 species and subspecies of native turtles, plus some non-native ones, including 15 turtle species on the state list of species of greatest conservation need because they are in decline. Dyke Marsh has at least eight turtle species, including the box turtle (*Terrapene carolina*), painted turtle (*Chrysemys picta*) and snapping turtle (*Chelydra serpentina*). On sunny days, we often see turtles basking on logs.

Turtles have been around for 200 million years, says American Tortoise Rescue. Visit https://www.worldturtleday.org/blank for tips on saving turtles.



Eastern box turtle (*Terrapene carolina*) Photos by Glenda Booth

Glenda C. Booth

Glenda C. Booth is the president of the Friends of Dyke Marsh and active in conservation issues in Virginia.

Bringing Mussels Back to the Potomac

This article was published in the March 31,2022 issue of the Mount Vernon Gazette, Connection newspapers.
All photos by Glenda Booth unless otherwide indicated.

BY GLENDA C. BOOTH

Many people may think that freshwater mussels are insignificant, nondescript critters, but for rivers and streams, they are important critters.

Virginia's riverbeds, including the Potomac's, were once lined with native mussels. When the first English settlers arrived, "They were astonished to discover rivers practically paved in freshwater mussels," according to the Virginia Department of Wildlife Resources' (DWR) website. Over the next 400 years, pollution, dams and invasive species helped put 70 percent of mussels in the United States at risk. Over seven percent have gone extinct and another 50 percent are listed under the U.S. Endangered Species Act. In Virginia, of 82 species, only 30 percent are considered to be stable, with the remaining in decline, reports DWR.

Declining mussel populations can signal that freshwater ecosystems are in trouble. "The disappearance of freshwater mussels usually indicates chronic water pollution problems," says a U.S. Department of Agriculture website. To improve water quality, the Potomac Riverkeeper Network (PRKN) has launched the 50 Million Mussel Project to restore freshwater mussel populations in the Potomac and Shenandoah Rivers.

What Is a Mussel?

Mussels are aquatic mollusks, invertebrate animals with soft bodies usually enclosed in a hinged shell. Freshwater mussels can range from thumbnail to pie plate size and live from 20 to 100 years.

Mussels draw in water with their incurrent siphon and discharge it through their excurrent siphon. Their shells are usually, but not always, dark in color on the outside and pearly on the inside. Mussels grow in both freshwater and saltwater. They spend much of their lives partially buried in sediment.

Eastern lamp mussel (*Lampsilis radiata*)

Why Mussels?

"Like oysters, freshwater mussels are nature's water-based clean-up crew," explains Emily Franc, Vice President for Development/Philanthropy at PRKN. They are filter feeders which means they obtain food by filtering water for nutritious particles.

One adult mussel can clean up to 10 liters of water per day. They can filter out excess nutrients, sediments and other pollution. These pollutants come from stormwater running off roofs, parking lots, roads and other hard surfaces and from lawn and agricultural fertilizers. Nutrients often flow off agricultural fields and poultry farms.

Sediments can smother mussel beds and cloud water. Turbidity blocks sunlight needed for submerged aquatic vegetation, underwater plants that invertebrates, fish, ducks and other aquatic organisms need for food and protection.

While the river is making progress, in their 2020 report, the Potomac Conservancy, concluded, ". . . excess nutrients and sediment from polluted urban runoff is increasing over time and threatens to undo decades of progress. . . sediment in urban and suburban stormwater runoff continues to increase."

Left to right: eastern pond mussel (*Ligumia nasuta*); eastern lamp mussel (*Lampsilis radiata*); tidewater mucket mussel (*Leptodea ochracea*)

BRINGING MUSSELS BACK *(continued on page 5)*

BRINGING MUSSELS BACK *(continued from page 4)*

Growing Mussels

The riverkeepers hope to reintroduce 50 million mussels to the Potomac and Shenandoah Rivers by 2030, starting by propagating native mussels on the Potomac in Smoot's Cove at National Harbor. They have propagated or cultured four species: eastern floater, eastern lamp mussel, eastern pond mussel and tidewater mucket. They plan to eventually have similar projects at other Potomac River sites.

Propagating mussels requires understanding one of the most complex reproductive systems in nature. Males release sperm which the current carries to a downstream female who draws it in through her siphon. A fertilized egg develops within her gills into the microscopic larval stage called a glochidium. Once mature, the glochidia enter the water column and attach to the gills, fins or scales of freshwater fish, so the fish serves as a host or "taxi" for the mussel's eggs. The glochidia then encyst into the fish's tissue. Still microscopic, the juvenile mussel drops off the fish and begins its life on the stream bottom.

At the Smoot's Cove nursery, PRKN project managers put striped bass and yellow perch carrying microscopic mussels in six cages in hopes that the baby mussels will drop into the cages and grow. They submerge the cages underwater to within one foot of the riverbed.

The floating cages are designed to catch baby mussels as they fall out of the fish's gills and avoid being suffocated by sediment buildup. So far, managers have not found young mussels in the cages, but they suspect that waves and current moved them out and that the mussels are on the river bottom. They hope to send scuba divers down in the fall to search the riverbed for mussels that likely escaped the cages in recent months. They have found damage to some of the cages and suspect that otters or large birds may have torn into them. The demonstration project will also help develop the most effective type of cage and locate other suitable sites for mussel nurseries.

Managers hope that the Smoot's Cove 10-year project can be a national demonstration center and that the mussel population will eventually become self-sustaining.

In addition to the Peterson Companies/National Harbor, other partners are the Joseph Manning Hatchery in Charles County, Maryland, Oasis Marinas, Underwater Adventure Seekers and the Maryland Department of Natural Resources. PRKN will expand their partnerships to other organizations, including nonprofits.

Mussel restoration projects are also underway on the Anacostia and James Rivers and in southwest Virginia.

Franc loves the challenge: "Centuries of human impacts overwhelmed and decimated these once vibrant freshwater mussel populations," she says. "We have the opportunity to reverse the damage and get mussels back in the water to do what they do best, clean the water. Recovering our nearly extinct freshwater mussel populations will help heal the entire Chesapeake Bay. They need our help to make a comeback."

An educational panel on the pier explains a mussel's life cycle.

Biologist Matt Ashton lowers a cage, explaining the process to the public.

Project participants put fish carrying microscopic mussel larvae into cages.

Matt Ashton secures a new cage before lowering it into the water.

Biologists pull up the suspended mussel cages from the river.

Project participants search a cage's base for young mussels.

Addressing the Ecosystem Impacts of White-Tailed Deer

BY CHARLES SMITH

There is an ongoing discussion about whether we should be managing white-tailed deer populations in our urban landscapes. Deer management is an emotional issue. Deer are a graceful, native species. The primary objection to managing deer populations is that they are innocent, and that human land disturbance and re-disturbance is the number one threat to natural areas and native species.

This is true. Humans have altered much of the earth. We need to do more to prevent continued human disturbance of natural areas. However, this does not eliminate the fact that white-tailed deer populations have ballooned and are eliminating much of the remaining biodiversity of the eastern United States.

White-tailed are highly adaptive species that eat almost every native plant species preferentially because they co-evolved with those plants. They certainly eat many non-natives too, but in natural areas they remove native species which can result in local extinctions and reduced competition for non-native invasive species. This effect also spreads to the increasing dominance of species such as American beech which are less palatable to deer, have a much lower biodiversity value than oaks, hickories and other native overstory trees and their root systems suppress the growth of other native plants around them.

Numerous studies since the 1970s have demonstrated the impacts of browse from over-abundant deer on eastern forests. This browse effect not only causes local extinction of native plant species, but it alters forest succession potentially for centuries and eliminates sources for reintroductions in increasingly human fragmented landscapes. In this scenario, the numerous insect and other species relying on the native plant biomass simply disappear.

Coyotes are not effective predators of deer. This issue has been looked at for decades. They may take occasional fawns or injured deer, but they do not actively hunt healthy adults and are certainly not effective at controlling populations. Since humans have eliminated wolves and mountain lions from the eastern United States, humans alone are the only remaining effective predator of white-tailed deer when we choose to be.

Immuno-contraception and sterilization are not effective on open deer herds. Simply put, you cannot sterilize enough does and deer move around a lot. The few studies that have been conducted (Fire Island and the National Institute of Standards and Technology) involved well-funded operations sterilizing closed herds (fenced and/or on an island) where migration could be controlled. Although those studies showed the ability to control the total number of deer, the resulting populations were still excessive and none of those studies assessed the ecological health of the sites. In short, we cannot chemically or surgically alter deer to the extent necessary to save our local flora and all of the other species dependent upon them.

Deer ravaged forest stand, Fairfax VA. Photo by Charles Smith

Construction of large fenced exclosures to keep deer out is very expensive to implement and maintain. In Northern Virginia, only small exclosures have been implemented. The most significant research sites regionally are at the Smithsonian Conservation Biology Institute (SCBI) in Front Royal. They can be effective, but most landowners and localities lack the resources to implement effective exclosure programs.

Human activities are the primary stressors on ecosystems and biodiversity. This includes land disturbance and fragmentation and the elimination of predators that may otherwise control populations of white-tailed deer. But this does not change the fact that deer decimate the remaining flora and biodiversity and only lethal population control can address this issue.

With lethal control of deer populations we can reduce the impacts and ultimately reduce browse to levels that allow native plants to regenerate and support local biodiversity.

Editor's note: We asked GWMP Superintendent Charles Cuvelier to describe their plans. He wrote, "The park does not have a deer management plan; therefore, it has limited tools to adequately control deer. Rock Creek and Catoctin are parks that have successfully implemented deer management plans. These sites as well as research information can help the GWMP in future planning efforts which could be done through an environmental assessment." NPS has prepared Forest Regeneration data for all National Capital Area (NCA) parks available at: https://www.nps.gov/articles/000/forest-regeneration-2021.htm?utm_medium=email&utm_source=govdelivery.

Meet the Plants -- Buttonbush

BY ELIZABETH FORTSON WELLS

Buttonbush (*Cephalanthus occidentalis* in the family Rubiaceae) is a native deciduous shrub between three and nine feet tall or a small tree, found in Dyke Marsh in the upper half of the nutrient-rich intertidal zone, at some distance from the wooden bridge of the GW Memorial Parkway's bike path across the Gut, along the Haul Road and in similar habitats along the Potomac River. It is widely distributed from New Brunswick and Quebec in Canada to Minnesota and south to Mexico and the West Indies. It is an obligate wetland plant. An obligate wetland plant is one that occurs in a wetland 99 percent of the time. A facultative wetland plant occurs in a wetland 67 to 99 percent of the time. Most of Dyke Marsh's wetland plants are obligate.

Buttonbush has large glossy, ovate-oblong leaves three to six inches long with entire margins; the leaves are opposite or occasionally in whorls of three. It is one of the few shrubs in the marsh that flower in midsummer. It earns its common name because its creamy white flowers are clustered into dense heads about one inch or slightly more in diameter, and these heads terminate the major branches and the last few lateral stems of major branches. Individual flowers are about one-fourth to one-third of an inch long, the corollas slenderly funnelform, styles long-exserted, ovaries inferior. After the flowers are pollinated, fruits (indehiscent nutlets) develop, resulting in a hard button-like ball or crowded multiple of nutlets at the end of the stems. These globose, pedunculate heads persist into winter, turning a deep red before shattering near the end of winter.

Habit shot of buttonbush *(Cephalanthus occidentalis)*
Photo by James H. Miller, USDA Plants database

Buttonbush flowers are an important source of nectar for bees. They attract several butterflies such as monarchs (*Danaus plexippus*) and virtually any other butterfly that happens to be passing by, as well as some of our largest and showiest moths such as the titan sphinx (*Aellopos titan*), hydrangea (*Darapsa versicolor*) and royal walnut sphinx (*Citheronia regalis*). Other pollinators include skippers. Buttonbush does well in gardens where its attractiveness to pollinators makes it an excellent alternative to the non-native, invasive butterfly bush (*Buddleia spp.*)

Close-up of buttonbush (*Cephalanthus occidentalis*) Photo by Ted Bodner USDA Plants database

The SUP Garbage Man

BY GLENDA C. BOOTH

Since 2019, Joe Wright, the self-described "SUP Garbage Man," has gone out on a trash mission three to five times a week on his paddleboard, collecting trash on the Potomac and in Dyke Marsh. SUP stands for stand-up paddleboard.

He's found a motorcycle seat, a pregnancy test, a stop sign, IV bags, a drone and a vial of blood, for example. "As for my territory, my efforts have no boundaries," he says. "I've cleaned waterways between Washington, D.C., and the Florida Keys. My mission isn't tied to any river or area in particular. Instead, it's all waterways. I primarily clean this area only because I happen to live a couple miles from the Potomac and it happens to have a lot of trash. Locally, I mostly go anywhere between Mount Vernon and Roosevelt Island."

SUP Garbage Man out in Dyke Marsh. Photo by Joe Wright

Joe created a non-profit and social media campaign to highlight the volume and nature of trash in waterways and opts not to participate in or host clean-up events. He's a one-man cleanup crew. His purpose? "To highlight what just one person can do over time, much like the old adage about eating an elephant one bite at a time. One person, acting alone, has the ability to make an impact." He says he does not object to cleanup events, but he wants "to inspire and motivate people to make changes within their own capabilities and interests."

Check out his website, https://supgarbageman.org/, including his trashy videos.

Trash -- the Top 10

Clean Virginia Waterways lists the following as the top ten trash items from their fall, 2021 International Coastal Cleanup:

Cigarette butts
Beverage bottles (plastic)
Grocery bags (plastic)
Food wrappers (candy, chips, etc.)
Beverage cans
Other plastic bags
Bottle caps (plastic)
Cups and plates (plastic and foam)
Beverage bottles (glass)
Straws, stirrers

Sunday Morning Bird Walks

Bird walks are held Sunday mornings, all seasons. Meet at 8 a.m. in the south parking lot of the Belle Haven picnic area. Walks are led by experienced birders and all are welcome to join us.

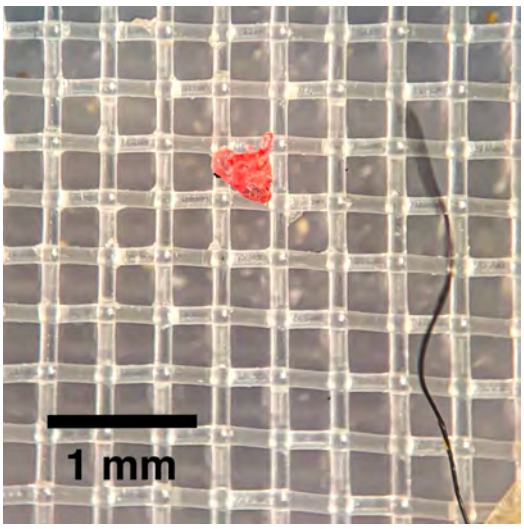
Microplastic Pollution in Local Waterways

BY KURT MOSER, President, Four Mile Run Conservatory Foundation

In 2018 and 2019, the Four Mile Run Conservatory Foundation conducted a study of microplastic pollution in Four Mile Run, with results published in the Virginia Journal of Science in 2020.

Microplastics, ranging in size from that of a grain of sand to the size of a pea, are only part of the overall plastic pollution picture. Larger pieces of plastic in the environment are familiar as litter, like plastic water bottles or snack food packaging, but very small plastic particles – nanoplastics – are also abundant pollutants. Plastics of every size wear down over time into ever smaller particles, but it takes a very long time, hundreds or thousands of years, for them to break down chemically. In the meantime, because plastic bits tend to attract and accumulate chemical pollutants, when they are ingested they harm animals and animal populations, and the bioaccumulation of those pollutants up the food chain is amplified, potentially reaching our dinner tables in fish or shellfish.

At Four Mile Run, every water sample we tested contained microplastics, and the most common form was plastic fibers – from clothing or carpets, for instance. Even though its watershed, at 20 square miles, is among the smallest among those documented in scientific literature, Four Mile Run's microplastic pollution load is among the highest. And while, as in other published studies, the local wastewater treatment facility is a major source of microplastics – about 3.5 tons annually – even well upstream of the facility, the Run carries several hundred pounds of microplastic material each year. For comparison, Four Mile Run Conservatory Foundation volunteers typically remove about 2.5 tons of litter from the Run each year, and maybe half of that weight is plastic material.



A piece of microplastic.

Tessa Naughton-Rockwell, who co-authored the microplastics paper describing the Four Mile Run study, sampling for microplastics. Photos by the Four Mile Run Conservatory Foundation

Our study helped quantify the magnitude of the microplastic pollution problem at a very local scale. Other Potomac tributaries of the Washington, D.C. metropolitan area likely carry similar loads of plastic pollution, so the problem is as much local as it is global. Being more intentional and thoughtful in our use of plastic is essential, especially because recycling isn't nearly adequate to the task. Where we have material choices in our purchases, alternatives to plastic are worth an extra look. And as with substituting reusable bags and bottles for single-use plastic ones, there are daily-life habits we can adopt to limit plastic waste.

Consumers cannot be the sole focus, though. Recent local bag-fee policies should help curb the single-use plastic habit. Businesses can support good consumer choices, too, as with "disposable utensils only available upon request" in restaurants. We can and should advocate for what is called "extended producer responsibility," an approach under which producers bear some responsibility, physically or financially, for the treatment, recycling and/or disposal of their post-consumer products, including packaging and the products themselves when no longer usable. Manufacturers thus help reduce plastic waste by innovating in their packaging and ensuring the life cycles of their products don't end in environmental harm.

Our study confirmed that the plastic pollution problem isn't so far away, in ocean gyres, beach sands or sea turtles. It is right here in our yards, towns and streams and our best efforts need to be, as well.

Editor's note: Kurt will give a brief presentation at our May 19 meeting.

Coyotes Are at Home in Northern Virginia

BY MERRI COLLINS, PhD Student, George Mason University

The story of the coyote (*Canis latrans*) is without a doubt a story of resilience. It's also a story of the importance of the pursuit of evidence-based, wildlife management.

In the early-mid 20th century, the U.S. government undertook a mass extermination effort to eradicate coyotes from the American West, killing over 6.5 million coyotes. This large-scale effort was undertaken due to the incorrect assumption that coyotes were killing big game animals and livestock, when, no studies had ever proven this. In fact, at that time, no one really knew what coyotes ate. Diet studies found that coyotes are omnivorous predators, that they eat a wide variety of small mammals like rodents, but also fruits, berries, vegetation and carrion, making them no threat to large game species or cattle as previously believed. Despite persecution, coyotes have continued to breed quickly and efficiently, expanding their territories across the U.S. from their native range in the American West.

But how? Six and a half million coyotes is a large number. This would be enough to effectively wipe out many other species populations. Research has taught us that coyotes can adjust their reproductive strategies to account for environmental pressures, or in this case, human pressures. When populations are falling, litter sizes go up. Females will go from having five or six pups in a litter, to as many as 12. Coyotes howl to communicate their presence to other coyotes in an area. If a coyote howls and that howl remains unanswered night after night, it triggers a bodily response to produce larger litter sizes.

Coyotes long ago crossed the Mississippi River and are now found throughout the eastern U.S., including Northern Virginia. Despite the urban landscape, coyotes persist. In fact, scientific research suggests coyotes can thrive in cities and that coyotes in urban areas can have longer life spans than those in rural areas. Scientists have studied large populations of coyotes in Chicago and New York City to draw these conclusions.

Nighttime photo of coyote (*Canis latrans*)
Photo by Dyke Marsh wildlife camera

Daytime photo of coyote (*Canis latrans*)
Photo by the Urban Nature Lab, George Mason University

So, while you might not see them as regularly as say, the mourning doves that feed in your backyard, coyotes are here. Coyotes are primarily nocturnal and move about while human activities are low. They eat the rats and mice that are abundant in our neighborhoods. They also eat human food by, for example, garbage scavenging. We have documented coyotes in Dyke Marsh with a wildlife camera.

Live with Wildlife

With a medium-sized predator roaming about our communities, shouldn't we be afraid? The short answer is, "No." There is no need to fear coyotes. Just respect a coyote's space and presence as you should for any wild animal. Coyotes want little to do with us. You can deter coyotes and most wildlife from your property by not leaving pet food out at night, never feeding wildlife and securing your garbage receptacles. If you see a coyote, yelling, waving your arms or making loud sounds will generally discourage it from visiting your property. Further, many people worry that coyotes will prey upon small dogs and cats, but this is rare. Keep your dog leashed and your cat indoors. If you have a fenced yard, monitor your dog when it is outside at night. These are appropriate approaches, even if there are no coyotes about.

There is a lot of false information online about coyote behavior and much misinformation is spread on social media. To get the best guidance and most accurate answers, consult with an expert, such as your local natural resources agency or the Virginia Department of Wildlife Resources, 855-571-9003 and https://dwr.virginia.gov.

Editor's Note: Merri is a valuable member of our team that is managing our wildlife camera in Dyke Marsh.

New NPS South Parkway Supervisor

The Friends of Dyke Marsh welcome Cassie Anderson, the George Washington Memorial Parkway's (GWMP) new south district visitor services supervisor. Cassie leads the park rangers who welcome and engage the public at sites on the parkway like Arlington House, Dyke Marsh, Fort Hunt Park and more.

Among other activities, the south district's GWMP team manages summer concerts at Fort Hunt Park and the Netherlands Carillon, teaches kids how to ride bikes at Jones Point and conducts tours at Arlington House.

Cassie Anderson. NPS photo

Cassie is "passionate about telling the full, honest history and teaching, training and supporting others to do the same," she says, and "honored and humbled to work with Arlington descendants to make Arlington House a site of reckoning, reconciliation and anti-racism." She hopes to make the south district team's ideas grow into exciting and creative offerings throughout the parkway.

Cassie has degrees from the University of Washington in sociocultural anthropology and political science with minors in gender studies, human rights and diversity. She has worked in national parks in California, Alaska and Washington state. Outside the Park Service, she taught English as a Second Language.

Welcome New FODM Members

FODM welcomes our **new members** Fred Abbey, David and Susi Cora, Jeff Gauger, Lynn Green Penati, Frances Henderson, Jan Kalicki, Chen Kaufmann, Kate Madden, Anna McMurray, Jim and Sue Scott, Sophia Setterberg and Morgan Whaley. We welcome **new lifetime member** Kim Mann and **conversions to Lifetime Membership** Yongjing Jin and Jim Waggener.

ENGLISH IVY CONTROL (*continued from page 12*)

leaves have a waxy coating, which keeps the water in the leaves and can keep the leaves green for a month or more. Eventually, the cut ivy will turn brown. If the tree is healthy and growing, the increase in the girth of the tree will cause the dead ivy vines and branches to drop off within a few years. English ivy will grow back up a tree where it has been cut, but it can take five years, or more, before we have to cut it again.

The only month we did not have invasive control sessions this winter was in January, when we cancelled because of foul weather. We had and are still having invasive control sessions twice a month. We will soon end our English ivy sessions, because other annual and perennial invasive plants are making their spring comeback.

If you would like to participate in controlling invasive plants in Dyke Marsh, send an email to info@fodm.org with "Invasive plants" in the subject line.

FODM Membership - Dues and Contributions

Support the Friends of Dyke Marsh by becoming a member or renewing your membership. Benefits include the Friends' publication, *The Marsh Wren*; membership meetings with knowledgeable speakers; Sunday morning bird walks and notification of activities in and around the marsh. Most importantly, your membership lends your voice in support of the Dyke Marsh Wildlife Preserve and our efforts to advocate for full restoration of the marsh. Just click on the "Join" or "Donate" button on our membership page at www.fodm.org to make your tax-deductible contribution by credit card or from your bank account securely through PayPal. For help, info@fodm.org. If you prefer, you can send a check, payable to FODM, P.O. Box 7183, Alexandria, Virginia 22307. The annual dues are $15.00 per household, $250.00 for life membership for an individual. You will receive a notice by mail or by email when your renewal is due. A financial statement is available upon written request from the Virginia Office of Charitable and Regulatory Programs. Thank you for your support of FODM.

DUES AMOUNT..…..… $ _____
ADDITIONAL CONTRIBUTION..…….. $ _____
TOTAL AMOUNT ENCLOSED..……. $ _____

NAME _____
ADDRESS _____
CITY_____ STATE ____ ZIP_____
TELEPHONE NUMBER _____
EMAIL ADDRESS _____

Please address any questions or comments about *The Marsh Wren* to Dorothy McManus and about membership to Bob Veltkamp. You may contact them by mail at FODM, P.O. Box 7183, Alexandria, Virginia 22307 -7183, by telephone or by email (see page 2).

The Marsh Wren

The Friends of Dyke Marsh
P.O. Box 7183
Alexandria, VA 22307-7183

English Ivy Control in Dyke Marsh, Winter 2021-2022

BY JIM GEARING

Thank you to the many dedicated FODM volunteers helping control invasive plants. In 2021 and 2022, we have worked year-round, rather than just during the summer months. By late fall, most of the deciduous undergrowth has dropped its leaves or died back, so it is easier to walk into the woods to work on many invasive plants.

We are trying to control invasive plants because they give little support to native insects and other wildlife, destroy biodiversity and outcompete valuable native plants for sunlight, water and nutrients.

Our primary target in the winter months is English ivy (*Hedera helix*), brought to North America by English settlers in the 1600s. This non-native invasive plant spreads readily and covers both the ground and anything it can grow on. On the ground, it crowds out native plants and creates a plant monoculture. When it gets up to 15 or 20 feet high on trees, it starts branching and making flowers and seeds. Birds eat the seeds and though they do not digest them well, they spread them very well.

While English ivy does not kill trees directly, it adds to the load in the upper part of trees and makes them more susceptible to toppling and branch breakage during heavy weather. Ivy can harbor moisture that encourages tree decay.

Our goal in Dyke Marsh and along the George Washington Memorial Parkway (GWMP) is to kill English ivy on trees before or after the ivy reaches the flower and seed stage. The standard control method is to cut it near the ground and pull all the ivy vines off a tree between ankle and knee height. This is called a "window." The window indicates that a tree has been treated. We do not dig out roots, because the entire GWMP is considered potential archaeological sites by the National Park Service (NPS). This means we should not disturb the earth, without a NPS permit.

FODM's invasive plants leader Jim Gearing cuts a "window" of ivy at the base of a tree. Once cut, the remaining ivy dies. Photos by Glenda Booth

Once the ivy has been cut from its roots, the ivy on the tree will die, slowly. English ivy

ENGLISH IVY CONTROL *(continued on page 11)*