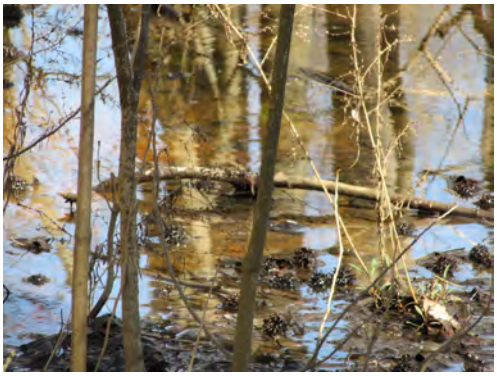
The Marsh Wren

SINCE 1976 | THE FRIENDS OF DYKE MARSH | WINTER 2023

Wetland Dynamics through the Seasons

March 1, 7 p.m. FODM Zoom Program



Spring: The forest floor is wet.
All photos by Glenda Booth

Summer: Wetland plants reach their peak in the summer.

Fall: Milkweed plants (*Asclepias syriaca*) along the Haul Road Trail release their seeds.

Winter: Winter's quiet in the marsh and contrasting colors are stunning.

Join the Friends of Dyke Marsh for an online presentation by Dr. Colin Rees, a zoologist and biodiversity expert, on the secrets and wonders of freshwater, tidal wetlands and associated woodlands over the course of a year: spring's avian migrations, the quickening of vegetation, the burgeoning of myriad invertebrates and the assaults of extreme weather conditions; summertime's proliferation of flora, fish, fowl and mammals; amazing feats of biological inventiveness during the autumnal preparation for winter; and how fauna and flora adapt to winter's harsh conditions.

He will also touch on microbial diversity, bird banding and butterfly phenology, habitat and species biodiversity and some of the challenges posed by climate change and development pressures. Dr. Rees's talk is based on his many years of observations at Maryland's Jug Bay Wetlands Sanctuary, which like Dyke Marsh, is a freshwater, tidal wetland.

The program is cosponsored by the Friends of Huntley Meadows Park, the Friends of Mason Neck State Park and the River Towers Condo Landscape and Grounds Committee.

To attend virtually, click here or visit www.fodm.org and click on "Click here" in the program's notice, left side of the home page.

FODM 2023 Member Meetings

March 1, at 7 p.m., (see p.1)
May 17, at 7 p.m. (see p. 5)
October 25, at 7 p.m.

Calendar of Events

Every Sunday, 8 a.m., Bird Walks

March 4 and 18, 10 a.m., Invasive Plants Control

April 15, 10 a.m., Trash Cleanup

June 10, 10 a.m., Ecology Walk

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

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Annual Meeting and Election on March 1

At the March 1 meeting, also FODM's annual meeting, members will elect officers and the Board of Directors. The proposed nominees, all of whom have agreed to serve, are listed to the right. Other nominations can be considered at the meeting.

We have included in the paper copies of the Marsh Wren a proxy form for establishing a quorum and voting at the meeting if a member cannot attend. The form includes instructions for completing and returning it by February 24. For those who receive the newsletter by email, we will send you a separate email with the proxy and instructions. You can reply by email. Be sure to send your proxy if you cannot attend. Two nominees are not incumbents. Clarence Monteiro, an engineer and Mount Vernon resident, develops integrated work management systems and has designed municipal infrastructure and data management. Ann Greer, an Alexandrian and member of the Alexandria Archaeological Commission, works in marketing and communications for cultural institutions.

Nominees

Glenda Booth, President
Dixie Sommers, Vice President
Meg Jonas, Secretary
Matthew Smith, Treasurer
David F. Barbour
Carolyn Bednarek
Carolyn Gamble
Jim Gearing
Ann Greer
Deborah Hammer
Dorothy McManus
Clarence Monteiro
Randy Myers
Bob Veltkamp
Ed Eder, Past President

George Washington Memorial Parkway Superintendent's Message

BY CHARLES CUVELIER

Thanks for the opportunity to provide a few updates and welcome everyone into 2023. I'd like to convey my appreciation to the Friends of Dyke Marsh for all your work last year protecting the marsh. Educational programs, invasive plant removal, clean-up days, surveys, treating 18 pumpkin ash trees all benefit the park resources and visitors. Thanks for being so committed in preserving, protecting and restoring Dyke Marsh.

Throughout 2023 we will be asking for your participation in the South Parkway and Mount Vernon Trail Improvement Plan Environmental Assessment (EA). After public scoping, we will produce a draft report with a range of alternatives. This is a key decision document that will address deferred maintenance needs with the goal of improving the overall condition of the park. Please visit the project website for updated information: https://parkplanning.nps.gov/projectHome.cfm?projectID=112569

We are working on several projects through contracting this year that would improve the condition of the Parkway, including road striping at Belle Haven Road, striping Slaters Lane to Roaches Run, guardrail repairs and stone masonry guard wall repairs. We anticipate trail work will include replacing two bridges in Dyke Marsh and have been in communication with your Board of Directors as we plan for this project. In addition, we will be working on a new friends group agreement to replace the soon expiring agreement. We value the partnership and look forward to our continued collaboration.

Editor:
Glenda Booth

Assistant Editors:
T. D. Hobart
Bob Veltkamp

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Visit our website at
www.fodm.org
or our **Facebook** page.

Friends of Dyke Marsh Board of Directors

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Matthew Smith

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Carolyn Bednarek
Carolyn Gamble
Jim Gearing
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Dorothy McManus
Clarence Monteiro
Randy Myers

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 post office or email address at the left.

President's Message

Glenda C. Booth, President, Friends of Dyke Marsh

Some days may be a bit nippy outside, but FODM's dedicated volunteers and supporters are undaunted. On the January 16 Martin Luther King Day of Service, 131 volunteers collected trash and clipped English ivy (*Hedera helix*) from trees. The "trash squad" hauled out 446 pounds in 70 bags, from Styrofoam pieces to flipflops to tennis balls and, of course, the ubiquitous plastic bottles and aluminum cans that litter the shoreline. On January 1, we hosted 75 enthusiasts on Mount Vernon Supervisor Dan's Storck's First Day walk. Twice a month a loyal cadre of eight to 12 volunteers tackles invasive plants.

NPS Construction Plans

The National Park Service (NPS) is undertaking three construction projects that could affect Dyke Marsh: repaving the south parkway; replacing bridges 23 and 24; and rehabilitating the multi-use trail between Mount Vernon and Theodore Roosevelt Island, 2.5 miles of which are in Dyke Marsh.

We have shared our concerns about the bridges and trail plans' potential adverse impacts on the preserve's natural resources, especially the trees and habitats near the trail.

On the trail, NPS's plan says, "The project would improve safety and address maintenance needs along the parkway and the trail . . . Potential safety enhancements for the trail would include potential trail widening and intersection improvements." NPS officials have said that they would widen the trail "where feasible," which they have not defined. They report they will not expand the bridges' current footprint.

The multi-use trail is popular with walkers, runners and bikers of all ages. Many FODMers use it for nature observation, surveys and recreation. And while the trail has many benefits, we do not believe the National Park Service is the "National Recreation Service."

We have pointed out that expanding impervious surfaces can send more polluted runoff into already degraded waters. We've stressed that Dyke Marsh is losing up to 1,000 pumpkin ash trees and that oak trees are in unprecedented decline in the region. NPS's own studies concluded that no Washington, D.C.-area national park has adequate tree regeneration.

On the bridges and the trail construction, we have expressed several concerns, including these:

- NPS should conduct a study of bicyclists' speed on the trail, one of several acknowledged safety factors.
- NPS should conduct a complete biological inventory to document natural resources present. Know what's there before harming it.
- NPS should not remove or adversely impact any trees, many of which are within a foot or two of the trail, especially the 18 pumpkin ash trees (*Fraxinus profunda*) for which we are financing treatments to address the invasive emerald ash borer (*Agrilus planipennis*).
- NPS should not widen the trail and not locate the staging area's equipment in the preserve.
- NPS should respect the parkway's historic designation and Congress's 1959, Dyke Marsh directive in Public Law 86-41 that "fish and wildlife development and their preservation as wetland wildlife habitat shall be paramount."
- Studies show significant declines in birds, insects, wildlife and biodiversity in the country. Virginia's Wildlife Action Plan reports that there are 883 species critically imperiled or in decline. "Habitat loss is the single greatest challenge impacting these species," the plan states. NPS should avoid accelerating declines and could help address many, especially by restoring habitat and not expanding current development and impervious surfaces.

You can read our comments on our website at https://fodm.org/about/taking-action.html and NPS's proposals at https://parkplanning.nps.gov/GWMP_South.

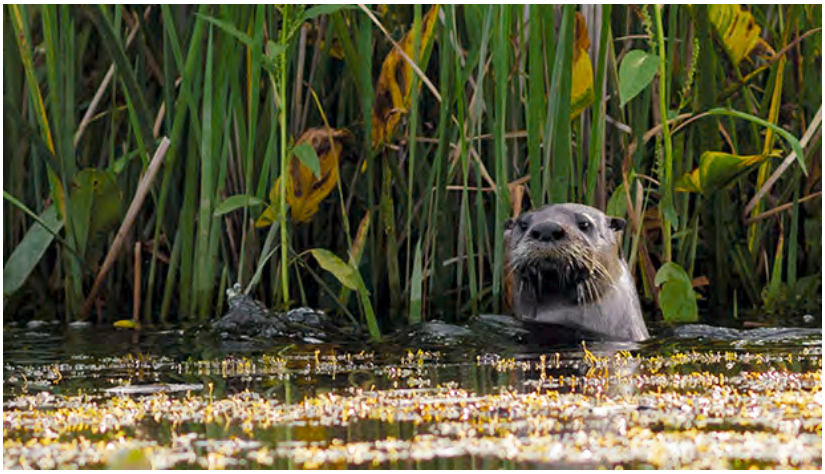
The New Congress and Parks?

It is unclear how the new, 118th Congress will address the needs of our national parks. In late 2022, the 117th Congress approved bills bringing the country's total number of national parks to 424. The 424th is the New Philadelphia National Historic Site, to honor early-19th-century, African-American pioneers in Illinois. Congress also designated the 35-acre Ukraine Independence Park in Washington, D.C., at 22nd and P Streets and Florida Avenue, N.W., to recognize "the importance of Ukraine's independence, freedom and sovereignty and the solidarity between the people of Ukraine and the United States."

River Otters, Sentinels of Ecosystem Health

BY MERRI COLLINS
PhD Candidate, George Mason University

Sedimentation, erosion, pollution and other factors have taken a toll on habitat quality across the planet over time and have led to extirpation of some native species that have low tolerance for polluted waters. The good news is that people have played and can play a part in restoring ecosystem health. While there is still much to be done to protect and restore our aquatic ecosystems, we can see some signs that efforts to restore riverine and marsh habitats are working. One such sentinel of increasing ecosystem health is the appearance and population increase of northern river otters (*Lontra canadensis*).



River otter (*Lontra canadensis*) in Dyke Marsh Photo by Todd Kiraly

River otters are a gregarious species that biologists consider a keystone or indicator species. This means these semi-aquatic mammals have a low tolerance for surviving in polluted waters and thus their presence indicates a healthy ecosystem. As carnivores, otters help regulate prey populations of fish, amphibians and crayfish, keeping the food chain regulated and healthy. Otters are in the Mustelidae family and are closely related to weasels and minks, with a similar streamlined body shape that enables them to dive deep (up to 55 feet) to forage for food. Otters have very playful personalities and while they can be seen traveling solo, its common to see several otters traveling and socializing together in groups.

River otter with crawdad in its mouth Photo by Todd Kiraly

Native to most permanent water bodies in North America, river otters are native to the Potomac River and surrounding waterways as well, but populations took a hit due to industrialization and habitat loss. As urbanization took hold, otter sightings became almost non-existent in our area. However, sightings have increased around Washington, D.C., in recent years. Most notably, otters were seen in Washington, D.C.'s Tidal Basin in 2021 near the boat docks playing on the swan boats.

Other sites of local sightings include Four Mile Run, the Anacostia River, Huntley Meadows Park and even near Dyke Marsh last year. While otters can be hard to spot because they are primarily nocturnal, the winter season can cause activity outside of normal otter "business hours" since they may need morning and daytime activity to find adequate food. So, when you head out to the riverbanks or marsh, be on the lookout for flashes of brown bobbing through the water. You never know when you might see this elusive sentinel species. Consider yourself very lucky when you do!

River otter at the Washington, D.C. Tidal Basin Photo by NPS

NPS Director Samms Has Inspiring Words

BY GLENDA C. BOOTH

"Native people do not have a word for 'wild.' What some call 'wild,' we call 'home,'" Charles F. "Chuck" Samms III, the 19th National Park Service (NPS) Director, told an October 2022 conference of national parks friends' groups. "We must move from dominance over the land to stewardship over the land," he urged.

In October 2022, I had the privilege of meeting Director Samms at a National Park Friends Alliance conference in Gatlinburg, Tennessee, gateway to the Great Smoky Mountains National Park. Of the 200-plus friends' groups, 84 were represented.

Samms is an Oregonian and the first Native American to serve in this role. He started building trails and firefighting in national parks 35 years ago. He said that partners raise over $600 million a year for our national parks. Friends' groups are a "force multiplier," he contends.

He shared these priorities:

- ensuring that parks "tell the full story," including the "tougher stories," adding, "If we forget them, we will repeat them."
- creating more ecological connectivity between natural areas;
- bringing more recognition to the smaller parks;
- preparing for climate change resiliency and adaptation; and
- having a diverse NPS workforce.

FODM President Glenda Booth discussed Dyke Marsh with National Park Service Director Charles Samms at a fall 2022 conference of national parks' friends' groups.

Today, the parks have a $22.5 million in deferred maintenance which is mostly roads and NPS has less than one-third of this amount available. He is responsible for 5,000 bridges and 12,000 vehicles. From 2010 to 2021, the agency lost 20 percent of its staff during a period when visitation rose 20 percent, he said.

Cassius Cash, the Great Smoky Mountains National Park superintendent, believes national parks can be a place for healing, saying that when he hikes, "I always come out better than when I went in." "Friends groups are the wind at our backs," he told the attendees.

Warming Up to Ticks and Mosquitoes

May 17 FODM Program

Many people seem to instinctively swat or squash bugs. People spend more time trying to kill insects than trying to save them, University of Delaware entomologist Dr. Douglas Tallamy told a September 25, 2022, meeting sponsored by the Audubon Society of Northern Virginia. Some may want to get rid of insects, but as the late Harvard biologist Dr. E.O. Wilson said, these invertebrates are "the little things that run the world."

On May 17, 7 p.m., Kasha Helget will give a Zoom presentation to FODMers on ticks and mosquitoes, how to identify them, their role in the environment, life cycles and eco-friendly, management responses.

Insects Are in Trouble

More than 40 percent of the world's insect species face possible extinction, according to a 2019 study published in Biological Conservation. Some dub this phenomenon the "insect apocalypse." One million species face extinction in the next 20 years and most will be insects, according to Tallamy and a United Nations report. "The creatures that keep us alive are disappearing," he warned. One-quarter of land-dwelling insects have disappeared in the past 30 years.

Remember the big bad wolf of bedtime story fame? Some people villainize certain wildlife species, like snakes, bats, mosquitoes and ticks. Humans rely on insects for ecological services like pollination and decomposition. Insects are essential to many birds' diets. "Ecosystem stabilization, energy and nutrient transfer, providing food sources to other wildlife and soil aeration are just a few of the major ecosystem services these small animals provide," wrote Danae Wolfe in the June 2020 American Gardener magazine.

Kasha Helget is a certified master naturalist and past Board member of the Arlington Regional Master Naturalists (ARMN). Click here or visit www.fodm.org to register.

Meet the Plants - Marsh Plants in Winter

BY DR. ELIZABETH WELLS

The flora of Dyke Marsh is a collection of woody plants (trees and shrubs) and herbs (perennial and annual). All are tolerant of flooding to varying degrees.

During the winter, most woody plants protect themselves from the damage caused by ice crystals and freezing temperatures by dropping their leaves and entering a state of dormancy. New growth will return with warmer weather in the following spring. Perennial herbs die to the ground, and subterranean structures such as roots, bulbs, corms and rhizomes become dormant. Annual herbs die completely and rely on seeds produced during the growing season to resume growth when warmer conditions return.

Narrow-leaf cattails (*Typha angustifolia*) release their seeds in fall and winter. Photo by Glenda Booth

Falling temperatures and shorter days bring an end to the growing season. Leaves lose their green color when chlorophyll degenerates, and yellows and reds appear. The yellow pigments have been present all along assisting in photosynthesis, helping to capture energy from sunlight. The reds, however, are synthesized anew from precursor molecules, spurred by shorter days and cooler temperatures especially at night.

Lateral and terminal leaf buds ordinarily develop on newly elongated shoots of woody plants during the spring and early summer months. By the time of leaf fall near the end of the growing season in autumn, many buds have entered a state of dormancy. In nature, dormancy of buds on woody stems is broken by exposure to relatively low winter temperatures. The length of time for which such buds retain their dormancy differs considerably from species to species. This can be demonstrated by cutting branches and bringing them into a warm room or greenhouse.

Twig anatomy of a red oak (*Quercus rubra*)
Photo by Margaret Chatham

Buds which are no longer dormant will begin to leaf out in the warm environment, but in nature leaves will not be produced as long as the cold winter environment persists. In addition, dormancy of buds is often the result of hormonal effects, for example, in the case of apical dominance when lateral buds remain dormant as long as the apical bud remains intact but resume growth when the apical bud is damaged or removed. The apical bud is also called the "terminal bud."

Some species, such as cattails, remain visible in the marsh where their extensive root systems maintain their relatively strong foothold on the soil, even while their upright stems, leaves, and reproductive structures become weathered and broken up. Other species, such as wild rice, die completely and must depend on the germination of seeds in bare spots in the soil.

All types of plants produce seeds, of course, and many seeds exhibit dormancy, in which apparently ripe seeds fail to germinate even if placed under favorable environmental conditions. Seed dormancy is broken by a variety of environmental conditions at the appropriate time of year.

Will Rising Sea Levels Threaten Dyke Marsh?

BY JOHN PAUL SCHMIT
Quantitative Ecologist, National Park Service

NPS Employee Geoff Sanders measures marsh elevation at Dyke Marsh.
NPS photo by Jim Lynch

Life is harrowing for plants in Dyke Marsh. It may seem serene: the water gently lapping, grasses swaying in the breeze, birds busily going about their day, but for the marsh plants all is not as it appears.

Plants in freshwater tidal marshes, such as Dyke Marsh, live a precarious existence, constantly poised between two potential disasters. The marsh plant communities can only survive in a narrow elevation range between high and low tides. In places just above high tide, the water level is too low and the marsh plants are outcompeted by upland plants. In places below low tide, the water level is too high and the marsh plants will drown and be replaced either by submerged aquatic plants or mud.

Unfortunately for the marsh, over the past century, the water level in the Potomac River in the Washington, D.C., area is rising at about 3.4 millimeters (mm) (approximately 1/8th of an inch) per year (see https://www.nps.gov/articles/000/sea-level-rise-in-the-dc-area.htm). Of that amount, roughly two-thirds is due to climate change-driven sea level rise, and one-third is due to the slow sinking of the east coast, called "subsidence," effectively making the ground level lower. Given these trends, it might seem like Dyke Marsh is doomed to slowly shrink as the sea level rises, until there is no place left where the marsh plants can survive.

Surprisingly, the plants can fight back. The waters of the Potomac and nearby streams contain sediment, which is basically soil that has eroded off the land upstream. When the water flows over the marsh during high tides, it collides with the plants and slows down. Slow-moving water has less energy and cannot hold on to sediment as well as fast moving water can, so sediment falls out of the water column and settles on the marsh floor. Plant root growth along with the capture of these sediments help raise the level of the marsh floor. If the marsh floor rises at the same rate as sea level, then the plants will remain in their preferred environment and the marsh can persist indefinitely. However, if the marsh floor lags behind sea level, then it may be converted into a mudflat or open water and effectively disappear.

NPS Is Measuring Marsh Floor Elevation

So how is Dyke Marsh doing? And how do we know? The National Park Service monitors Dyke Marsh using devices call Surface Elevation Tables (SETs). The SET is essentially a long metal rod, one end of which has been driven deep into the marsh, often 60 feet or more. Sinking the rod deep into the marsh ensures that it will be a stable benchmark that does not rise or fall due to disturbances at the surface. A horizontal bar is then attached to end of the rod that sticks out of the marsh and the distance between the bar and the surface of the marsh is measured in 36 locations. By repeatedly taking these measurements year after year, we can determine if the elevation of the marsh floor in Dyke Marsh is rising or falling and by how much.

According to a report by Western Ecosystems Technology posted at https://irma.nps.gov/DataStore/Reference/Profile/2296628, between 2006 and 2019, the elevation of the eastern edge of Dyke Marsh along the Potomac River, and the interior of the marsh away from its eastern edge, rose by 7.3 and 6.0 mm per year respectively, well above long-term sea-level rise. In the area of the marsh just east of the parkway roughly across from Tulane Drive, however, the marsh only rose by 2.2 mm per year, not keeping up with sea level.

Since 2019, the Park Service and the U.S. Army Corps of Engineers have constructed a breakwater to the south of the marsh and sills along the southeastern edge to decrease erosion and help promote sediment accumulation on the marsh. The Park Service will soon be installing new SETs which will allow us to monitor how Dyke Marsh responds to these restoration efforts. Over the next few years, we will be able to assess if the marsh is able to keep up with sea level rise and persist for decades to come.

> "There is symbolic as well as actual beauty in the ebb and flow of the tides. There is something infinitely healing in the repeated refrains of nature." Rachel Carson, The Sense of Wonder

Supporting Virginia's Breeding Bird Atlas

BY DIXIE SOMMERS

Marsh wren (*Cistothorus palustris*) in Dyke Marsh Photo by Ed Eder

FODM is sponsoring our mascot, the marsh wren (*Cistothorus palustris*), in the Second Virginia Breeding Bird Atlas. FODM's support will be included in the species account in the final atlas.

The Second Atlas, also known as VABBA2, is a database of over 1.5 million observations of 5.5 million breeding birds across the state collected during 2016-2020 and the analysis and results from this data. The analysis will include comparisons with the First Atlas results, collected during 1985-1989, showing how breeding ranges, breeding timing, population densities and other measures have changed in the intervening years.

We already know that seven species are new breeders in Virginia: anhinga (*Anhinga anhinga*), common merganser (*Mergus merganser*), magnolia warbler (*Setophaga magnolia*), Mississippi kite (*Ictinia mississippiensis*), painted bunting (*Passerina ciris*), yellow-bellied sapsucker (*Sphyrapicus varius*) and yellow-rumped warbler (*Setophaga coronate*).

Species accounts will show the results for each of Virginia's 195 or so breeding bird species, including breeding distribution maps for both atlases and the change between atlases, breeding population density maps, breeding timing and population trends in the state, along with a brief interpretation of the results.

The Second Atlas is a partnership between the Virginia Department of Wildlife Resources (DWR), the Virginia Society of Ornithology (VSO) and the Conservation Management Institute at Virginia Tech (CMI). The project is now in the data analysis stage, which will provide results to be described in species accounts and other portions of the final publication.

For the marsh wren, the data will document what is expected to be a population decline and shrinkage of its breeding range across Virginia. Preliminary results also suggest that the timing of breeding activities has changed for many species, including earlier nesting and later fledging of young, as reported in a fall 2022 VSO newsletter article by Dr. Ashley Peele of CMI. See https://www.virginiabirds.org/newsletter.

Atlas results will be used by natural resources managers, policy makers and many others to inform decisions about land use and management, conservation projects, energy and agricultural development and other policies related to Virginia's environment and wildlife.

"Sponsor a Species" is part of VSO's efforts to raise $274,000 to fund the completion and publication of the Second Atlas. To learn more, visit: https://www.virginiabirds.org/.

Back to Basics -- Why Care about Wetlands?

BY GLENDA C. BOOTH

Dyke Marsh was called "Hell Hole" in the 1800s. One of Virginia's largest wetlands near today's Suffolk was named the "Dismal Swamp" by Colonel William Byrd II who surveyed it in 1728 and wrote, "The foul damps ascent without ceasing, corrupt the air, and render it unfit for respiration."

For many years, many people saw wetlands as murky, inhospitable wastelands, stagnant holes of slimy muck. Deemed "useless" to humans, too often they became dumping grounds or places to fill, drain or "reclaim." Virginia has lost around 40 percent of its pre-colonial wetlands. At least 101 acres or 54 percent of Dyke Marsh was removed by dredging from 1940 to 1972, operations that destabilized the ecosystem and transformed it from a net depositional state to a net erosional state, concluded the U.S. Geological Survey, who predicted that without action, Dyke Marsh will be gone by 2035.

Inside the marsh All photos by Glenda Booth

A wetland is a transition zone between water and land, wet land. "Wetlands are areas where water covers the soil or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season," according to the U.S. Environmental Protection Agency (EPA). "Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils," says EPA.

A wetland can be called a marsh, swamp, bog, fen, pocosin, vernal pool, wet meadow, "prairie pothole" or mudflat, among other terms. Each wetland type is a combination of soil, hydrology and vegetation and other characteristics.

Pickerelweed (*Pontederia cordata*) is a common wetland plant that has a spike of blue flowers, named for the pickerel fish that frequents the same waters.

Generally, wetlands are recognized as coastal or tidal wetlands and inland or non-tidal wetlands. Dyke Marsh is a freshwater, tidal marsh with two three-foot tides a day, on average. The entire 485-acre preserve has wetland habitat, floodplain and swamp forests and open water. Dyke Marsh is one of the largest, most significant, temperate, climax, narrow-leaf cattail marshes in the national park system. The southern part of the marsh is at least 2,200 years old.

Congress added the preserve to the national park system in 1959 "so that fish and wildlife development and their preservation as wetland wildlife habitat shall be paramount." (Public Law 86-41)

Some bogs have carnivorous pitcher plants, like this one, *Sarracenia purpurea*, in a Maine bog. Dyke Marsh does not have this plant.

WETLANDS (*Continued on page 10*)

WETLANDS (*continued from page 9*)

Very Productive

Wetlands are among the most productive habitats on Earth. Kirk Havens, Director, Center for Coastal Resources Management, Virginia Institute of Marine Science (VIMS), calls them "biological supermarkets," noting that "in an area roughly the size of an average desktop, there can be as many as 8,300 animals." They have a diverse species of microbes, plants, insects, amphibians, reptiles, birds, fish, mammals and plants, for example. Dead plant leaves and stems form organic material that feeds aquatic insects, shellfish and small fish.

Free Ecological Services

"Far from being useless, disease-ridden places, wetlands provide values that no other ecosystem can," according to EPA. Often called "nature's kidneys," wetlands improve water quality by filtering out pollutants. Wetlands can stabilize shorelines, attenuate tidal energy, curb erosion and control flooding by trapping and slowly releasing water like a sponge. "Wetlands within and downstream of urban areas are particularly valuable, counteracting the greatly increased rate and volume of surface-water runoff from pavement and buildings," says EPA. Preserving and restoring wetlands can at times provide enough flood control that otherwise might be addressed by dredging and levees, for example.

Over one-third of federally-listed threatened and endangered species live only in wetlands and many others depend on wetlands. Wetlands are fish nurseries. "In the U.S., it is estimated that 90 percent of all recreational fish and shellfish harvested and 75 percent of those commercially harvested depend on wetlands for food or habitat. In the Chesapeake, that includes major recreational and commercial fisheries like Atlantic menhaden, rockfish, herring, shad and bass," reports the Chesapeake Bay Foundation. Many U.S. breeding bird populations like ducks, geese, woodpeckers, hawks, wading birds and many songbirds feed, nest and raise their young in wetlands. Migratory waterfowl use wetlands to rest, feed, breed and nest at least part of the year. Wetlands are stopover sites for many waterfowl species.

Narrow-leaf cattails (*Typha angustifolia*)

More Wetlands?

Since 1983, Bay states, Washington, D.C., and the federal government have had written agreements designed to restore the Chesapeake Bay's health. The signatory parties to the Chesapeake Bay Agreement, including Virginia and the federal government, agreed to create or re-establish 85,000 acres of tidal and non-tidal wetlands and enhance the function of an additional 150,000 acres of degraded wetlands by 2025. As of 2021, they had reached 18 percent of those goals, reports Pam Mason of the Virginia Institute of Marine Science.

Virginia has around one million acres of wetlands, according to the state's Department of Environmental Quality. Threats to the state's wetlands include shoreline development, conversion to open water and uplands, stream channelization and diversions and invasive species.

EPA has a series of fact sheets on wetlands at: https://www.epa.gov/wetlands/wetland-factsheets-all.

Children's Flyer

We send a big thank you to Margaret Wohler who designed a children's nature scavenger hunt flyer for FODM. It has 24 simple but beautiful sketches of flora, fauna and people in the marsh.

Thank You, Dorothy McManus

BY GLENDA C. BOOTH

Dorothy McManus Photo by Bob Veltkamp

The Board of Directors extends a heartfelt thank you to FODM stalwart, Dorothy McManus, who until recently was our FODM secretary and Marsh Wren editor. Fortunately, Dorothy continues to serve on the Board. She has stepped up for many years in many capacities, whether its trash cleanups, bird surveys or staffing tables. She was also FODM president at one time. We know that FODMers share our deep gratitude for Dorothy's devotion and long service.

Welcome New FODM Members

FODM welcomes our **new members**: Austen Ballard, Nancy Buchanan, Joanna Crane, Tim Dennison, Solveig Eggerz, Martha Ellett, Tom Farley, Toni Genberg, Ken and Terry Goldberg, Pam Green and Ken Hanson, Kara Hoover, William Krumpelman, Robin Kuprewicz, Leigh Leonard, Sallie Lyons, Barbara MacDonald, Moira Modzelewski, Stacey Peckins, Carol Reynolds, Beverley Rivera, Janet Rupp, Tracy Saale, Rene Thierry and Sarah Veale. We welcome our **new life member** Rosemary Lewis and **conversions to life membership** Deborah Bombard, Hillary Clawson, Bill Corin and Marian Titerence.

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.

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

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; bird and nature 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, its protection and full restoration. 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, email 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..…….. $ _____

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

Please address any questions or comments about *The Marsh Wren* to Glenda Booth 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

Cope's gray treefrog (*Hyla chrysoscelis*)
Photo by Barbara Saffir

FODMers Recognized

BY GLENDA C. BOOTH

Congratulations to Barbara Saffir, FODM member, whose photograph of a Cope's gray treefrog (*Hyla chrysoscelis*) won the Virginia Herpetological Society's annual photography contest in November 2022.

Hats off to two FODMers who received Fairfax County's Environmental Excellence Award: Will Friedman and Elisabeth Lardner.

Will, a senior at West Potomac High School, has helped many times with invasive plant control and trash cleanups in Dyke Marsh. He has also coordinated tree planting at over 20 schools. He takes glass to the purple recycling bins for neighbors who cannot.

Will Friedman has volunteered many times in Dyke Marsh.
Photo by Glenda Booth

Elisabeth chairs the Civic Association of Hollin Hills Parks Committee, stewards over 30-plus acres of community parkland and coordinated her community's work on two stream restoration and stormwater management projects.

We also salute two other awardees. Dr. Katherine Edwards, the Wildlife Management Specialist for the Fairfax County Police Department, has been very helpful to FODM. Charles Smith has led ecology walks for FODM and is a Project Coordinator with Fairfax County's Department of Public Works and Environmental Services.

Congratulations too to FODMer Dr. Mike Sieriacki, an oceanographer, who is the new Director of the University of Maryland's Horn Point Laboratory. You can learn more here: https://www.umces.edu/news/oceanographer-mike-sieracki-joins-umces-as-horn-point-laboratory-director.