

50  
YEARS



SPECIAL  
EDITION

# The Marsh Wren

SINCE 1976

THE FRIENDS OF DYKE MARSH

FALL 2009



## The Friends of Dyke Marsh

*In 1959, the Dyke Marsh Wildlife Preserve became part of the U.S. National Park Service system, when P.L. 86-41 became law, "so that fish and wildlife development and their preservation as wetland wildlife habitat shall be paramount."*

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## Native Americans Along the Potomac

### Aboriginal America and the Potomac Frontier, 1607 to 1676

Join the Friends on Wednesday, November 18, 7:30 p.m. as we welcome Dr. Stephen R. Potter, Regional Archeologist for the National Park Service's National Capitol Region for a talk titled, "Aboriginal America and the Potomac Frontier, 1607 to 1676." Free and open to all, it will be at the Huntley Meadows Park Visitor Center, 3701 Lockheed Boulevard, Alexandria, Virginia 22306. The Fairfax County History Commission and the Northern Virginia Chapter of the Archaeological Society of Virginia (NVC/ASV) are cosponsoring the meeting.

Dr. Potter will discuss the tumultuous political dynamics of the Algonquian-speaking people of the Potomac River Valley during the critical 60 years following the establishment of Jamestown in 1607. He will explore the relationships of various Native American groups and the European invaders and how this affected those living along the banks of the Potomac River south of



A 1617 copperplate engraving by Georg Keller showing Captain Samuel Argall trading with the Native Americans of Tidewater Virginia.

### Great Falls.

Dr. Potter wrote, "In 1607, most of the Algonquian-speaking peoples of the Potomac River Valley were not only embroiled in their own alliances and squabbles, they were linked with other peoples through a complex web of trade, alliances and conflict that stretched far beyond the banks of the Potomac. . . . This political landscape affected the development of

*(Continued on page 2)*

## Special Edition Marks DMWP 50th Anniversary

### BY DOROTHY MCMANUS, Editor

The anniversary of the federal, formal recognition of Dyke Marsh Wildlife Preserve as a very special place demands something correspondingly special in our newsletter. This edition in your hand combines our usual late summer and fall numbers to bring you expanded coverage of our fine gala celebration held on October 4, as well as special articles on the history of efforts to preserve Dyke

Marsh, and descriptions of specific current projects that document the sustained close examination of the marsh by scientists and dedicated naturalists. And we have our usual features as well, including announcement of November's quarterly meeting. All of this attests to the place in our community's hearts and minds which Dyke Marsh Wildlife Preserve has commanded for all these years, and continues

*(Continued on page 2)*

## Nature Walks in Dyke Marsh

We hope to have more nature walks and perhaps canoe trips in 2010. Many members enjoyed Dr. Elizabeth Wells' wetland plant walk in August and Dr. Edd Barrows' insect adventure. Please suggest other subjects and leaders to us. Contact any board member with your ideas. We send a big thank you to Kurt Gaskill and the volunteers who lead the Sunday morning bird walks. Winter will bring more waterfowl to the marsh and lest you think spring is far away, keep a lookout for bald eagle courtship starting before too long!

NATIVE AMERICANS (Continued from page 1)

relations with the invading Europeans and the course of colonial and imperial powers in the region. A combination of archaeological, ethno-historical and historical data provides the foundation for new perspectives on the critical 60 years following the establishment of Jamestown.”

This topic will be particularly appropriate as November is Native American History Month.

Dr. Potter, who received his Ph.D. in anthropology from the University of North Carolina at Chapel Hill, is an expert on the southern Algonquian Indians who maintained seasonal camps in the vicinity of Dyke Marsh. Dr. Potter's research interests include both the prehistoric and historic archaeology of the eastern United States, the southern Algonquian Indians, the cartography of colonial America, the formation and expansion of the 17th and 18th century frontiers and the archaeology and history of the U. S. Civil War.

## THE MARSH TRIUMPHS

So young, we peopled an old land and saw riches  
In wetlands washed by Potomac River tides  
Let's farm, some said, build dikes, dig ditches,  
Set corn and reap a rich reward. On all sides  
Crops failed to flourish; fields were left at fallow.  
For some this cast-off ground became a goad.  
Let's mine, they said, stones for home and road,  
Abrade the bottom land in coves and shallows.  
When mining dwindled, some said, let's drain  
The marsh and make tall buildings along the river.  
T'was then others sought and found a giver,  
To return to nature what nature had loaned to us,  
Their fervent calls for help were heard by Congress,  
And Dyke Marsh Preserve was born, immune  
From greater ruin these fifty years, a triumph and a boon.

--Jack Sullivan

SPECIAL EDITION (Continued from page 1)

to command. The new format which we introduced in 2008 to your gracious approval allows considerable flexibility — thanks to the efforts and talents of Duncan Hobart, our Assistant Editor — and we will continue to develop new ways to communicate with you in the future, including those on-line. We welcome your comments!

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for more information about  
us, our programs and how  
you can join the FODM.

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*The Marsh Wren* is a quarterly 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 editorial address above. Board members too, can receive mail at this address. Special thanks to Duncan Hobart for managing our website (www.fodm.org), and to Paula Sullivan and Ed Eder for their photography contributions to *The Marsh Wren* and website.



## President's Message

Glenda C. Booth, President, Friends of Dyke Marsh

Attention to the Dyke Marsh Wildlife Preserve has reached new heights in the past few months:

The Friends had a gala celebration on October 4, attended by over 100 supporters, detailed in these pages.

The U. S. House of Representatives approved a bill (H. Res. 701) recognizing the importance of the preserve and the legislators who wrote the legislation in 1959 that put the preserve into the National Park Service system.

Senators Jim Webb and Mark Warner introduced legislation (S. Res. 297) recognizing the importance of the preserve.

Coinciding with the new documentary by Ken Burns, a film that explores the splendors of parks like Yellowstone and Yosemite, I told the group at our celebration, "Dyke Marsh is our Yellowstone."

Congressmen Moran and Dingell urged us to maintain our vigilance. They are truly inspirational leaders. Congressman Dingell wrote the bill 50 years ago and still cares enough to attend an event not in his district on a beautiful Sunday afternoon to express his support for the wetland's continued protection.

In a guest column published in the October 1 Falls Church News Press, Congressman Moran wrote that President Barack Obama has called on everyone to address climate change. Citing the importance of local conservation efforts, the congressman said, "The protection of the Dyke Marsh wetland is a prime example of how we can achieve significant results in our own backyard."

### **New Research to Begin at DMWP**

Researchers from the University of Maryland's Center for Environmental Science/ Appalachian Laboratory are launching a three-year research study to forecast the effects of environmental change on the formation of freshwater marsh ecosystems, research that will focus on the Dyke Marsh Wildlife Preserve.

"Freshwater marshes are integral to the health of watersheds, but their existence is threatened by rapid environmental change," said research team leader Dr. Katia Engelhardt. "The study will provide insight into how marshes are formed and why so many species can live together in one small area. Results will help scientists determine the best ways to prevent the unintended destruction of marshes in the future and to restore already degraded marshes."

The project integrates remote sensing of marsh surfaces with field observations to shed light on the feedbacks between marsh topography, sediment deposition and erosion, and vegetation. Scientists will use this information to determine the dominant environmental drivers that affect the physical and biological properties of the marsh. The team will also apply this new science to determine the role vegetation has played in past sediment deposition and erosion

events and how future water level changes will affect biodiversity and marsh surfaces.

This new information will help scientists forecast marsh response to changes in biodiversity and the establishment of new species, while also providing insight into how biodiversity may change as sea level rises or groundwater subsides.

The research is supported by a \$620,000 grant from the National Science Foundation.

### **Other Activities of Note:**

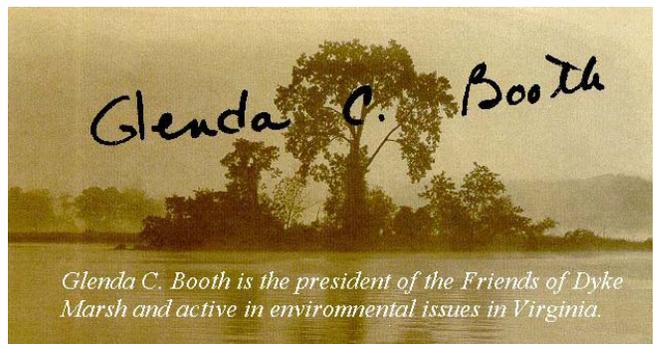
There's always something going on in and around the Dyke Marsh Wildlife Preserve.

**Water Quality:** Several people are interested in conducting water quality work in the marsh. We hope this work can proceed.

**Hydrilla:** Hydrilla made its annual appearance this summer and the National Park Service did some mowing in the marina area so boats could get in and out. Upon learning that Mount Vernon Supervisor Gerry Hyland asked the county staff to consult with the U. S. Corps of Engineers about addressing hydrilla on the Potomac River, we asked him to also ask that they also consult with the National Park Service and the Virginia Institute for Marine Science. Our goal is to make sure that whatever approach they might choose would not harm native wetland plants and that they get sound scientific expertise in making a decision. Supervisor Hyland agreed. Among other impacts, hydrilla crowds and shades out native aquatic plants.

**Potomac River Traffic:** Some FODMers expressed concern about airboats operating this summer. We asked NPS to evaluate their impact on DMWP. In addition, Prince William County is investigating the feasibility of operating a commuter ferry on the river, between Woodbridge and the District of Columbia. Project costs are predicted to be \$21-\$30 million; annual operating costs would be \$3.8 million.

**Waterfowl Hunting:** Waterfowl hunting has resumed along the boundaries of the preserve and we will continue to pursue ways to address it. Thank you to the National Park Service for moving the duck blind out of the preserve, off NPS's property.



# A Concerted Effort: Dyke Marsh Preservation in the “Early” Days

BY ED RISLEY

The Dyke Marsh Wildlife Preserve is a remnant tidal wetland and a jewel of the U.S. National Park Service. That it exists is not an accident. It is the result of decades of persistent effort by a large number of naturalists and concerned citizens. Its integrity was threatened many times as the tide of commercial development swept down the Potomac River from Washington. Prior to the 20<sup>th</sup> century some thousands of acres of marsh existed at the mouth of Hunting Creek. The salvaging of a significant portion was accomplished in increments and with determined effort.

The U.S. Geological Survey established the age of the original marsh by core samples taken by Luna Leopold, son of Aldo, a renowned naturalist, and others in 1963. Fine sand from Hunting Creek was laid down starting some 7,000 years ago. The abundant bird life was identified and documented by an expert birder, Jackson Abbott, over the period 1946 to 1976 in records now in the Smithsonian Institution. Abbott shared his observations in periodic bird walks organized by the Audubon Naturalist Society (ANS) of Washington, D.C. The Society also published influential articles by scientist Irston Barnes. Finally, many of the attributes of the marsh were described in a noteworthy book by Louis Halle, first published in 1947, titled *Spring in Washington*.

A lobbying effort led by members of the ANS led to the crucial act of the U.S. Congress of 1959 that contained important objectives for the marsh but no funds. In enacting the law, P.L. 86-41, Congress clearly expressed its purpose in adding the Dyke Marsh Wildlife Preserve to the National Park system—“so that fish and wildlife development and their preservation as wetland wildlife habitat shall be paramount.” Responsibility for administering it was given to the National Park Service, which at that time seemed to value general recreation over protecting natural qualities. Thus, dredged sections were allowed to be refilled with general debris. Again, ANS interceded with the Department of Interior whereupon the practice ceased and the marsh was left alone for a number of years except for occasional birders, hunters and fishermen.

The next significant activity occurred in 1975 when the U.S. Army Corps of Engineers was seen making measurements for places to place dredge spoil as part of their mandate to keep shipping channels in the Potomac River open. When asked, the Park Service agreed to set up a briefing for citizens and groups with an interest in the marsh on their intentions. Around 40 people attended a meeting where a generally unsatisfactory course of action was outlined. Subsequently, NPS agreed to prepare an environmental impact statement and a group of concerned citizens agreed to create the Friends of Dyke Marsh to monitor developments.

The Friends, who continue to be active to this day, have played many roles. One role, a watchdog, has resulted in numerous instances of illegal hunting and commercial trapping being reported to authorities. Excellent birders lead

weekly bird walks. FODM holds quarterly member meetings with guest speakers and reports of bird sightings and other natural phenomena. FODM conducts the annual Breeding Bird Survey in Dyke Marsh. Also, FODM publishes an informative newsletter, *The Marsh Wren*. FODM maintains close connections with the National Park Service and the



Founder Ed Risley guided FODM in its early days. Photo by Ed Eder.

Friends assist by conducting clean-ups and other programs. FODM produced a short documentary film. Probably most useful has been the support of scientific collection and monitoring. The Friends have raised money to support various types of scientific research and collection. Dr. David Johnston summarizes this work in a publication on the ecosystem. The Friends have collaborated with a number of academic institutions and scientists on subjects ranging from insect studies to migratory bird patterns. All of these activities have helped to affirm the intrinsic value of the preserve. A number of threats to the preserve have been overcome, including the clearing of trees to create more parking spaces. A valiant group of activists have built on the legendary work of Louis Halle and Jackson Abbott. Their work is a textbook example of the value of protecting a once neglected marsh.

*Ed Risley is one of the founders of the Friends of Dyke Marsh and had a major role in efforts to protect the marsh.*

“There are few if any other areas in the Central Atlantic States so accessible to the budding and blooming naturalist, where such a variety of flora and creatures wearing fur, fin and feathers or unadorned skin can be found in such a small area . . . All in all, a naturalist’s paradise within seven miles of the nation’s capital.”

-- Jackson Miles Abbott (the late)

On a sign in Dyke Marsh Wildlife Preserve

# FODM's Presidents - Talented Leaders Past and Present

BY T.D. HOBART

As we celebrate the Dyke Marsh Wildlife Preserve's 50th anniversary, it is appropriate to recognize those who have contributed their many and varied talents to the leadership of the organization protecting this valuable resource. These are the presidents of the Friends of Dyke Marsh, past and present, who have brought their considerable knowledge and experience to aid in facing the issues concerning Dyke Marsh. Their experience includes the fields of administration, government and legislation, politics and public relations, education and writing, law and medicine. FODM's first president, Ed Risley, has called them "A valiant group of activists [who] have built on the legendary work of Louis Halle and Jackson Abbott." (See article p. 4.)

First among this group of activists is Jeb Byrne. Jeb, a former staff member of Presidents Kennedy and Johnson, is a founding member of FODM. Jeb has been at the heart of every major challenge facing Dyke Marsh. He has used his writing talent to publish FODM's position on these issues in many of our local newspapers. Jeb was FODM's president for two terms and served for many years.

Armand "Buck" Miller took the helm in the mid 1980s. The FODM was still a small organization and outreach or attempts to raise interest and awareness of the marsh were the main focus.

Buck engaged the talents of his son, architect Roger Miller, to design a display that was mounted at the Martha Washington Library around that time. Also, T shirts were printed with the FODM logo (also designed by Roger) and sold to the general public.

An avid birder, Buck Miller was the first organizer / compiler of the Dyke Marsh breeding bird survey. He conducted the survey for many years until his successor took over. Larry Cartwright was and is the second BBS leader and has for the past seventeen years continued the work started by Buck Miller.

Several women members of FODM have served in its highest office. Bev Byrne, a former teacher, relieved husband Jeb Byrne and served a term as president and published *The Marsh Wren* while Jeb continued his unwavering advocacy on all issues to protect Dyke Marsh. While many of you may recall that Mary-Carroll Potter was the long-time organizer of our guest speaker program and that Dorothy McManus has been our secretary and editor of *The Marsh Wren* for many years, each has served a term as president of FODM when the need arose.

Another of our talented former presidents is Frank McKenna. An attorney, Frank serves on FODM's board of directors and has provided the organization legal advice for thirty-five years. However in 1989, when a work assignment took FODM President Jeb Byrne to New Zealand for over a year, Frank stepped in and filled the job.

As Jeb's long service as president came to a close, it

was time to seek new leadership. Dr. Ed Eder, M.D. was elected to the office. Ed, an ardent birder and exceptional photographer, presided over FODM during a time of major accomplishment and excitement. The long anticipated board walk over Dyke Marsh was built (and rebuilt after Hurricane Isabel), but it was Ed's leadership in producing a film that had the greatest impact on FODM.

The documentary film *On the Edge, the Potomac River's Dyke Marsh*, produced by David Eckert, premiered at the Kennedy Center as part of the Washington, D.C. Environmental Film Festival in March 2006. A local premiere was held in Alexandria a month later. The sold out events raised awareness of the marsh amongst the public and elected officials. Membership in FODM increased significantly and many talented new members now contribute their time and efforts to the organization. Ed's beautiful photographs of marsh life continue to inspire us, have been shown locally, and grace FODM's publications.

FODM's current president, Glenda C. Booth, is a long-time local resident who lives close by the marsh. Glenda chairs the Fairfax County Wetlands Board and is a conservation advocate on many fronts. As a freelance writer and former congressional aide and legislative assistant on Capitol Hill, Glenda uses her excellent communications skills to express FODM's views on issues affecting the preserve. By letting our elected officials and park administrators know our concerns, Glenda has led FODM to take a proactive stance. Her commitment to effective communications has extended to improving all of FODM's media including the organization's website, *The Marsh Wren* newsletter, the meeting display board, leaflets, flyers, and posters. Glenda is clearly the voice of the Friends of Dyke Marsh.

FODM has been fortunate to have had such a talented succession of leaders. Although diverse in background and experience, they all share a common vision: A healthy and vibrant Dyke Marsh Wildlife Preserve that is protected against the challenges of the next 50 years - and beyond.



FODM founding member Jeb Byrne (two terms) and Bev Byrne each served as president. Photo by T. D. Hobart.

*"A valiant group of activists [who] have built on the legendary work of Louis Halle and Jackson Abbott."*

-- Ed Risley

# Supporters Celebrate 50<sup>th</sup> Anniversary and Honor Leaders

BY GLENDA C. BOOTH

On a perfect balmy Sunday afternoon on October 4, over 100 supporters of the Dyke Marsh Wildlife Preserve gathered at the Potomac River home of Larry and Kathy Hirsch, just south of the marsh, to recognize elected officials and leaders of the Friends of Dyke Marsh.

We were honored that Congressman Jim Moran (8-VA) and Congressman John Dingell (15-MI) came. Congressman Dingell is the author of the original legislation that became law in 1959 designating the Dyke Marsh Wildlife Preserve as part of the U. S. National Park Service system, “so that fish and wildlife development and their preservation as wetland wildlife habitat shall be paramount.” Elected in 1955, he is the longest-serving member of the U. S. House of Representatives.

Virginia Congressman Moran introduced Congressman Dingell as a “real hero” who “defines courage and commitment” and “works very hard and effectively.

“Were it not for his leadership and courage and conviction that haven’t wavered once since he came to Congress back in 1955 following the death of his father, we would not be here today,” said Moran.

He continued: “And Dyke Marsh would probably not be here either.

“At a time when Rachel Carson was just starting to write her book and the environmental movement was years away from its formation, local residents found a sympathetic ear and few allies in Congress to protect the marsh.

“The marsh was literally disappearing before everyone’s eyes as a commercial dredging operation on the marsh continued to dig deeper gashes into the Potomac River to recover gravel for sale.”

Commending FODM, he said, “I know it hasn’t been an easy fight all the time, but this group has demonstrated that it is up for any challenges.”

Congressman Dingell called Dyke Marsh “a beautiful piece of



Congressman Jim Moran and Congressman John Dingell were honored for their efforts to protect the Dyke Marsh Wildlife Preserve. Photo by Ned Stone.

ground” and told attendees, “I’m proud of what we did. Conservation requires constant vigilance and effort. The Friends of Dyke Marsh are making a tremendous contribution.”

## FODM Leaders Honored

At the gathering, FODM recognized several notable leaders of our organization.

Here are my comments:

“Ed Risley, founder of FODM in 1976, is the soul of the Friends of Dyke Marsh. Don’t be fooled by his quiet demeanor. He is persistent and focused and he taught us the necessity of steady stewardship.

“Jeb Byrne provides us great strategic insights and judgment especially helping us decide which fights to wage. He is a master of the written word and keeps us laughing with his clever wit.

“Frank McKenna has given FODM sound legal advice for 35 years. His fingerprints, but not always his name, appear on everything from weighty documents to other matters and he makes our organization run.

“These three devoted citizens are always there for us, have great vision and a long-term commitment to conservation.”

We also made presentations to a number of elected officials who have

been supportive of our efforts: Virginia Senators Patsy Ticer and Toddy Puller; Virginia Delegates David Englin and Kris Amundson; Mount Vernon Supervisor Gerry Hyland; Alexandria City Councilman Rob Krupicka; and Mount Vernon School Board Member Dan Storck.

Virginia Senator Puller and Delegate Amundson presented the Friends with a commendation from the General Assembly of Virginia recognizing the 50th anniversary.

We gave photographs of the preserve to the two congressmen, one by former FODM president Ed Eder to Congressman Dingell and one by Paula Sullivan to Congressman Moran. We will also present photographs by Ned Stone and the late Valerie Gregg to Congressman Gerry Connolly and U. S. Senators Mark Warner and Jim Webb. (See page 14.)

FODM extends our appreciation to FODMers Larry and Kathy Hirsch for offering their beautiful home for the event and to the following generous donors: Carole Goodman of dogooddesign; Bittersweet Café; Buzz Coffeehouse; Barbara Perry and Barry Murphy and to the many volunteers who made it a successful event. FODM Board member Bridget Wells (pictured at celebration below) organized and managed the event superbly.



Photo by Ned Stone



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## 50<sup>th</sup> Anniversary Photo Gallery

FODM member Ned Stone attended the celebration and provided *The Marsh Wren* with these photographs. Pictured are clockwise from above: FODM President Glenda Booth conducting the ceremony with Congressman Jim Moran and Congressman John Dingell looking on; National Park Service Ranger Erik Oberg and Mrs. Jody Oberg; Hostess Kathy Hirsch talking with Virginia State Senator Patsy Ticer; FODM founder Ed Risley relaxing with Mrs. Cynthia Risley; Ms. Dixie Sommers talking with Georgetown University Professor Dr. Edd Barrows; Virginia State Senator Toddy Puller listening to a guest near the buffet table.

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# U. S. House of Representatives Supports the Dyke Marsh Preserve

BY GLENDA C. BOOTH

The U. S. House of Representatives on October 6, on a vote of 325 to 93 approved H. Res. 701, a bill introduced by Congressman Jim Moran and 37 cosponsors recognizing the 50<sup>th</sup> anniversary of the law that designated the Dyke Marsh Wildlife Preserve as part of the U. S. National Park Service system and recognizing the leadership of Congressmen John Dingell, Henry R. Reuss and John P. Saylor in authoring the original legislation in 1959.

In the October 5 House debate, Congressman Moran said, "In 1959, this body passed legislation that designated Fairfax County's Dyke Marsh as a protected ecosystem for the purpose of promoting fish and wildlife development and preserving their natural habitat. At the time, Dyke Marsh was being dredged for commercial purposes. They were going deeper and deeper to get gravel. They were ruining the ecosystem. . .

"It's preserved. It's a beautiful area. You can see Bald Eagles; you can see Great Blue Herons. You can see snapping turtles; a whole lot of bullfrogs. There aren't a lot of places left in the Washington area where you can see this unless you go to the zoo.

"I urge my colleagues to join me in recognizing the significance of Dyke Marsh, in reaffirming our commitment generally to protecting our nation's ecosystems, and in honoring three giants of the Congress -- John Dingell, John Saylor and Henry Reuss, whose leadership and commitment to environmental stewardship were instrumental in Dyke Marsh's preservation.

Congressman Gerry Connolly said, "Congress designated Dyke Marsh as a nature preserve 'so that fish and wildlife development and their preservation as wetland wildlife habitat shall be paramount.' Today it has 360 known species of plants, 6,000 arthropods, 38 fish, 16 reptiles, 14 amphibians and over 300 birds."

He continued, "Dyke Marsh Wildlife Preserve is a wonderfully complex ecosystem,' says Georgetown Biology Professor Dr. Edd Barrows. 'It may have as many as 18,000 species, from bacteria through Bald Eagles.' Depending on the time and season, visitors can see bullfrogs, snapping turtles, Great Blue Herons, Wood Ducks, Red-winged

Blackbirds and plants like pickerelweed, spatter-pond lily and wild rice. It is an important outdoor classroom for students of all ages and a laboratory for many area scientists.

"Like all wetlands, Dyke Marsh provides ecological services including flood control, water quality enhancement, habitat, fish nursery, and shoreline stabilization."

Virginia Senator Jim Webb introduced companion legislation, S. Res. 297, on October 2. Senator Mark Warner sent the Friends a letter on October 3 recognizing "those who have been involved in this project for your work to preserve Virginia's natural resources" and saying that he is cosponsoring Senator Webb's resolution.

You can read the text of the House bill below and the Senate bill at <http://thomas.loc.gov/cgi-bin/bdquery/D?d111:297.:list/bss/d111SE.1st.:TOM:/bss/111search.html>



Congressman Jim Moran introduced H. Res. 701. Photo by Ned Stone.

## U.S. Congress - Text of H. Res. 701

U.S. Congress - Text of H.Res.701 as Introduced in House To recognize the Dyke Marsh Wildlife Preserve as a unique and precious ecosystem.

HRES 701  
111th CONGRESS  
1st Session

To recognize the Dyke Marsh Wildlife Preserve as a unique and precious ecosystem.

IN THE HOUSE OF REPRESENTATIVES  
July 30, 2009

Mr. MORAN of Virginia submitted the following resolution; which was referred to the Committee on Natural Resources

### RESOLUTION

To recognize the Dyke Marsh Wildlife Preserve as a unique and precious ecosystem.

Whereas the Dyke Marsh Wildlife Preserve on the west bank of the Potomac River just south of Alexandria in Fairfax County is one of the largest remaining freshwater tidal marshes in the Greater Washington, DC, area;

Whereas Congress expressly designated the Dyke Marsh ecosystem for protection in 1959, fifty years ago, under Public Law 86-41 'so that fish and wildlife development and their preservation as wetland wildlife habitat shall be paramount';

Whereas the Honorable John D. Dingell of Michigan, the late Honorable John P. Saylor of Pennsylvania, and the late Honorable Henry S. Reuss of Wisconsin were instrumental in passing this legislation and in preventing proposed development along the Potomac River, thereby protecting the Dyke Marsh ecosystem from further dredging, filling, and other activities incompatible with a preserve;

Whereas Dyke Marsh is 5,000 to 7,000 years old and is a unique natural treasure in the national capital region, with

*(Continued on page 9)*

# Plants of the Dyke Marsh Wildlife Preserve

BY ROBERT SMITH

On August 15<sup>th</sup> Dr. Elizabeth Wells led an interesting two-hour walk to observe the various plants that make Dyke Marsh their home. The walk centered on the boardwalk over the upper gut (a stream through the marsh into the Potomac) that is just to the north of Tulane Avenue. The reason for this was to point out the variation of plants based on just small changes in height in this tidal area.



Flowering wild rice along the upper gut edge. Photo by Robert Smith.

For example, the picture at left shows a flowering wild rice plant at the edge of the gut which has a substantial growth of hydrilla showing on the surface. The further edge has an expanse of yellow pond lily, known locally as spatterdock, which is most tolerant of tidal flooding. Many of the yellow pond lilies displayed their ball-like yellow flowers. Although there are a scattering of wild rice plants along the boardwalk, there are major stands of them that can be seen in the distance.

Many of the plants were in flower and the most impressive was probably the rose mallow, an hibiscus that grows at the shallowest level of tidal flooding. But others included the button bush and cardinal flower.

Dr. Wells also pointed out and discussed useful plants along the walk such as the water hemp which was a source of fibers for Native Americans. There were many swamp dogwoods with berries and less useful plants such as the orange nets of dodder clamped on to other plants.

We also made an effort to distinguish the various arrow-shaped leaved plants that are common here, namely



Dr. Elizabeth Wells (2nd from left) leads group. Photo by Robert Smith.

green arrow arum and duck potato. The 20 or so participants on this sunny and warm day found this walk sponsored jointly with the Powtomack Chapter of the Virginia Native Plant Society to be interesting and rewarding. We hope to persuade Dr. Wells to repeat it at a different season.

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"Conservation is the foresighted utilization, preservation and...renewal of forests, waters, lands and minerals, for the greatest good of the greatest number for the longest time."

-- Gifford Pinchot, first Chief of the U.S. Forest Service

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H. RES. 701 (Continued from page 8)

more than 6,500 species of plants, insects, fish, birds, reptiles and amphibians contained within an approximately 485-acre parcel;

Whereas the Dyke Marsh Wildlife Preserve is a significant element in the historic character of the Mount Vernon Memorial Parkway;

Whereas freshwater tidal marshes are rare, and the Dyke Marsh Wildlife Preserve is one of the few climax, tidal, riverine, narrow-leaved cattail wetlands in the United States National Park Service system;

Whereas wetlands provide ecological services such as flood control, attenuation of tidal energy, water quality enhancement, wildlife habitat, nursery and spawning grounds, and recreational and aesthetic enjoyment;

Whereas the Dyke Marsh Wildlife Preserve serves as an outdoor

laboratory for scientists, educators, students, naturalists, artists, photographers, and others, attracting people of all ages; and

Whereas the Friends of Dyke Marsh is a conservation advocacy group created in 1975 and dedicated to the preservation and restoration of this wetland habitat and its natural resources: Now, therefore, be it Resolved, That the House of Representatives

(1) recognizes the Dyke Marsh Wildlife Preserve of Fairfax County, Virginia, as a unique and precious ecosystem that serves as an invaluable natural resource both locally and nationally;

(2) recognizes and expresses appreciation for Representative John Dingell's, Representative John Saylor's, and Representative Henry Reuss's leadership in preserving this precious natural resource;

(3) celebrates the 50th anniversary of the Federal legislation designating the Dyke Marsh Wildlife Preserve as a protected wetland habitat;

(4) expresses the need to continue to conserve, protect and restore this fragile habitat, in which a diverse array of plants, animals and other natural resources is threatened by past dredging and filling, a gradual depletion in size, urban and suburban development, river traffic, stormwater runoff, poaching, and non-native invasive species; and

(5) commends the Friends of Dyke Marsh for its longstanding commitment to promoting conservation and environmental awareness and stewardship, so that the Dyke Marsh Wildlife Preserve may be enjoyed by generations for the next 50 years and into the future.

# Living at a Crossroads - The Restoration of Dyke Marsh Wildlife Preserve

BY DR. KATIA ENGELHARDT

## *The significance of tidal freshwater marshes*

Tidal freshwater marshes were once extensive along the Coastal Plain rivers of the mid-Atlantic region of the United States. However, after centuries of intense coastal development, tidal freshwater marshes have been reduced to scattered remnants that can no longer provide the extent of ecosystem services characteristic of widespread, healthy marsh ecosystems. This has far-reaching consequences for the sustainability of wildlife populations and estuarine ecosystems. Nonetheless, even remnant marshes provide numerous benefits and services: resident and migratory wildlife habitat, refuge for endangered species, spawning and nursery grounds for anadromous fish, attenuation of tidal energy, shoreline stabilization, flood control, water quality enhancement, carbon storage, aesthetic enjoyment, and recreational activities. Consequently, the maintenance and enhancement of the remaining tidal freshwater marshes within the mid-Atlantic regions as well as world-wide are imperative both socially and ecologically.

Tidal freshwater marshes are located at the boundary between tidal and non-tidal riverine wetlands, and they are at risk to be eliminated or severely reduced in extent by sea level rise because there are few suitable stream habitats available for species and marsh migration. Tidal freshwater marshes have more rare and endangered species than other wetland types and are thus most susceptible to dramatic changes in patterns of species diversity. They differ from other tidal marshes in patterns of nutrient assimilation. Changes to the unique structure and function of tidal freshwater marshes are bound to impact food web dynamics and patterns of nutrient cycling in estuaries. It is therefore imperative that tidal freshwater marshes are protected and restored to the extent that they can adjust to changes in environmental conditions, such as sea level rise concomitant with other environmental stressors.

## *The significance of Dyke Marsh Wildlife Preserve*

Dyke Marsh Wildlife Preserve is an extremely important tidal marsh, offering invaluable ecosystem services, serving as a fantastic educational classroom, and providing a wide variety of recreational opportunities. Dyke Marsh is one of the largest tidal freshwater marshes located along the Potomac River in the Washington, D.C. area and is viewed as a national treasure because of its proximity to the nation's capital and a large urban/suburban population, its history, and its current potential for provision of ecological

services, recreational values, and educational opportunities. In addition, the marsh is located along a major travel corridor (G. W. Memorial Parkway) to one of the most popular tourist destinations in the D.C. area (Mount Vernon).

## *Sedimentation and sea level rise*

It is estimated that the formation of Dyke Marsh began 5,000 to 7,000 years ago, although recent coring and dating by the US Geological Survey suggests that the marsh may be significantly younger. Hunting Creek enters the Potomac River immediately upriver of Dyke Marsh. The velocity of the stream current is decreased as the stream enters the slower moving Potomac River. As a result, deposition occurs. Twice daily tides carry additional sediments from the Potomac estuary to the area. The constant deposition of sediments ultimately results in marsh surface elevations suitable for marsh vegetation. This deposition is usually

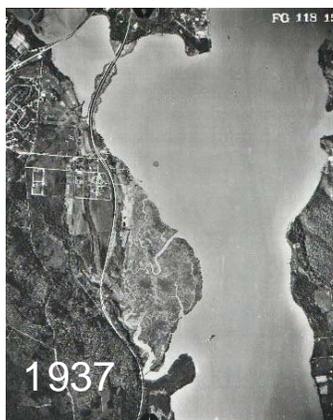
sufficient to keep pace with sea level change, where deeper water tends to enhance sediment deposition and shallower water tends to decrease deposition, resulting in the relatively flat marsh platform characteristic of tidal marshes and apparent at Dyke Marsh.

Recent research shows that the rate of marsh accretion (i.e., the rate of mineral and organic accumulation of sediment) is everywhere equal to the rate of sea level rise

when sea level rise is steady and moderate. In this case, water depth and biological productivity remain constant through time. An increase in sea level rise, a reduction in sediment supply, and disturbances to marsh vegetation can destabilize the marsh system. In such cases, marshes can erode rapidly and may be irreversibly lost. Projected increases in sea level rise at Dyke Marsh and the region are a) minimal increase of 3 mm/y, the expected increase for the Chesapeake Bay region determined using past records of sea level rise; b) moderate increase in sea level of 6mm/y, which is a median scenario of the Intergovernmental Panel on Climate Change report published in 2001; and c) large increase of 11mm/y, the maximum projected sea level rise according to current scenarios, which may underestimate sea level rise by some accounts. Given these potentially large sea level rise scenarios, it is imperative that disturbances to marsh vegetation are minimized and that sediment supply is maintained, if not enhanced in areas that have seen hydrologic alterations and changes in sediment delivery.

## *Dyke Marsh at a crossroads*

Dyke Marsh consisted of 650 acres in the 1930s when Smoot, Sand and Gravel Corporation (SSGC) acquired ownership. By 1940, SSGC began dredging open water



DMWP in 1937 and 1994 highlighting the impact of dredging, the hardening of terrestrial surfaces, and the severe alteration of Hunting Creek (entering the Potomac at top left of images).

areas for sand and gravel found between 16 and 40 feet deep. In 1959, an agreement was made between the U.S. government and SSGC to stop dredging in specific areas, yet dredging the marsh continued with increased environmental destruction from barges and a haul road. These activities stopped in 1972. In 1976, the National Park Service took over direct management responsibilities of the remaining 485 acres of wetland, of which close to 200 acres had been dredged. Since then, determining whether it is feasible to undo the damage, or at least minimize ongoing and future degradation, has been an important consideration for Dyke Marsh management. The current Environmental Assessment is an extremely important process which will end in decisions with far-reaching consequences for Dyke Marsh.

Dyke Marsh is currently at an important crossroads. After many years of abuse, continued development of the Potomac River shoreline and watershed, and increased boat traffic on the Potomac River, some marsh shorelines are eroding. Adding the threat of accelerated sea level rise (currently 3mm per year in the area, but could accelerate to 6mm or more), the worry is real whether the marsh will continue to exist in its present state for much longer without human intervention. Still, the current marsh is in excellent health, with vegetation and wildlife communities that are diverse and productive. If Dyke Marsh were a human patient, we might ask whether the patient needs major surgery, a minor procedure, or simply some regular monitoring for vital signs with possible intervention in the future. We might also ask if the patient is even sick or whether we are watching the natural process of aging, which includes changes in form and function.

#### **The case for restoration**

A case for restoration can easily be made. Approximately one third of the marsh surface as it existed only 100 years ago was lost to dredging activities. As area is lost, so are species and the capacity to provide ecosystem services. Therefore, an argument can be made from an ethical as well as an ecological perspective that marsh area needs to be restored, at least in part, to regain what was previously lost owing to human negligence.

Dredging left behind deep holes and an altered hydrology. Combined with sea level rise, changes in sediment delivery and increased boat traffic on the Potomac River, sediment deposition and erosion has likely been altered at Dyke Marsh. Thus, even though we still have incomplete information on the rate and extent of marsh surface loss (and potentially gain in other places), one could argue that, at a minimum, hydrology needs to be restored and shorelines stabilized.

#### **The case against restoration**

Global warming is a contentious issue. Some people flat out deny global warming is happening; some say it is a natural process so no change in human behavior is necessary; and some argue that humans are accelerating global warming and that a decrease in the carbon footprint is absolutely necessary. Obviously, the same data can be interpreted many different ways. The same arguments can be made for the management and restoration of Dyke Marsh. Notwithstanding the loss of marsh area to dredging, it is still unclear whether and how much marsh is concurrently

lost and whether this loss is a natural process or accelerated by human activity. Marshes are dynamic systems that constantly lose and gain ground depending on environmental conditions, in particular storm events and sea level. Managing for a static system would be Sisyphean. Hence, one could make the argument to let the marsh be and to allow it to migrate, perhaps, closer to Hunting Creek.

The current marsh is in good health. Any human intervention will increase the chance that the existing marsh will be negatively affected. For example, it is inevitable that new marsh areas will support populations of exotic plants, which then become sources of seeds for the existing marsh. Canada geese may be attracted to new mud flats and then learn to feed in existing portions as well. Engineered structures may add stability to new and existing shorelines but may change the hydrology to the extent that sediment delivery to the existing marsh is altered. A restoration will therefore require careful consideration of alternatives and close collaboration between managers, scientists, and engineers.

#### **Conclusion**

Dyke Marsh Wildlife Preserve is an important and irreplaceable ecosystem, and management of the marsh is currently at an important, yet difficult, crossroads. Doing nothing may result in the degradation and migration of the marsh and potential loss of the entire system. Restoration of previously lost areas may greatly enhance the ecosystem, but may also have significant unintended consequences, potentially requiring constant intervention and endless tinkering. A sound, science-based restoration plan is therefore key for minimizing potential adverse impacts.

*Dr. Katia Engelhardt is Research Associate Professor, University of Maryland Center for Environmental Science, Appalachian Laboratory.*

Editor's Note: The National Park Service has determined that restoration of Dyke Marsh is feasible and desirable. NPS is currently preparing a wetland restoration and long-term management plan/environmental impact statement which will present several alternatives for public consideration.



Potential restoration area proposed in a 1977 Environmental Assessment.

# The 2009 Breeding Bird Survey Documents 88 Species

BY LARRY CARTWRIGHT

The 2009 Dyke Marsh Breeding Bird Survey was conducted as part of a continuing biological inventory of the tidal wetland. The breeding status of each species was determined by means of behavioral criteria. Species were placed into one of 4 categories: confirmed breeder, probable breeder, possible breeder, and present.

The official survey was conducted between Saturday, May 23 and Sunday, July 5, but any data collected outside of this period that confirmed a breeding species was entered into the database. This permitted us to weed out most migrants that do not use the marsh to breed. I also included information provided from the Sunday morning walks to supplement data reported by the survey teams. The survey tract encompassed the Belle Haven picnic area, the marina, the open marsh, the Potomac River shoreline, and the surrounding woodland from the mouth of Hunting Creek to Morningside Lane. The volunteers documented 88 species at Dyke Marsh during the 2009 survey. By the time data collection was completed, they had collectively confirmed 40 species as breeders, recorded 8 species as probable breeders, and reported 21 species as possible breeders. An additional 19 species were present in the survey tract during the official reporting period, but were considered not to be in suitable breeding habitat.

The highlight of the 2009 survey in my opinion was the rebound of the Least Bittern after a 2-year population decline. We rely heavily on canoe teams to record Least Bittern sightings, and during the 2007 and 2008 breeding seasons, waterborne observers found only 1 or 2 adult birds during each weekly 3-hour survey period. Reports suggested at best the presence of 2 possible breeding pairs in 2007 and only 1 last year, but the volunteers saw no youngsters. Events proved much different in 2009. Least Bitterns were more numerous in 2009 than in the previous 2 years and canoe teams documented the presence of at least 2 breeding pairs by 31 May. The big day for viewing this species came on 28 June when the canoe team in the Big Gut recorded 8 Least Bitterns while a little further north participants on the regular Sunday morning walk watched an adult Least Bittern with a recently fledged youngster in flight over Hog island. In case anyone missed the 28 June performance, probably the same individuals conducted a similar flight the next Sunday, and this time they were accompanied by a third bird. To add to the pleasure of these observations, this was the first Least Bittern breeding confirmation at Dyke Marsh since 2006.

In contrast to Least Bitterns, Marsh Wrens are still struggling. The records show that there were approximately 12 territorial males in the marsh in 2009, and similar to last year, it appears that half of these did not establish territories until the second or third week of June. These birds were concentrated in the marsh vegetation along the Haul Road peninsula and Hog Island. Marsh Wrens remained absent from the south marsh. Despite the paltry number of singing

males, canoeists reported the first Marsh Wren nest on 31 May. Marsh Wrens proceeded to construct additional



Eastern Kingbirds were successful on their second nesting attempt. Photo by Ed Eder.

nests throughout June and the team that ventured into the marsh on 28 June was fortunate enough to document a busy breeding pair feeding nestlings. Whatever future awaits the Dyke Marsh population of Marsh Wrens, the 2009 survey showed that for now some individuals can still at least successfully complete incubation and care for nestlings.

Other birds of note are Osprey, Prothonotary Warbler, and Eastern Kingbird. Ospreys continue to be a prominent presence during the breeding season. These large raptors arrive in early March and within a short period begin the task of nest-construction. Ospreys were first reported occupying nest sites in 2009 on 8 March. During the course of the long breeding season, the volunteers recorded 13 active nests. Most nests were successful and by 10 July one observer reported that the Osprey youngsters at the marina nest had just fledged. Apparently the first clumsy attempts at flight provided great amusement. The fledglings ineptly landed on boat masts and had difficulty maintaining balance when the boats began to rock. However, no worry, the birds refined their takeoff, flying, and landing skills very quickly.

Prothonotary Warblers continue to prosper, and volunteers reported singing males from at least 14 different locations during the survey. Canoe observers recorded 2 active nests by 31 May and on 14 June, a land survey team on the footbridge crossing the upper Big Gut was delighted to find a Prothonotary Warbler breeding pair accompanied by 2 fledglings.

I mention Eastern Kingbird because the 2009 survey produced the first ever documentation of a breeding pair making a successful second nesting attempt after the first nest failed. Eastern Kingbirds are prolific breeders, so the sight on 30 May of a kingbird at a nest in a Sycamore tree would be neither unexpected nor unusual. The host Sycamore was beside the boat launch at the marina and the nest was approximately 30 feet from the ground. The nest was in an exposed position near the end of a branch and relatively easy to find, making it vulnerable to some marauding Fish Crows that destroyed the nest within a week of its discovery. The breeding pair did not vacate the area, and on 13 June were in the process of constructing a new nest in the same Sycamore. This time the nest was only 5 feet from the ground with an overhanging branch that screened the

nest from overhead observation. Egg laying apparently commenced on approximately 22 June and by 13 July an observer reported the presence of nestlings. All went well and on 9 August, observers during the Sunday morning walk were treated to the Eastern Kingbird pair providing a juicy insect meal to a hungry offspring. Well done Mr. and Mrs. Kingbird!

Some songbird numbers seemed slightly lower than average during 2009. At least a few Eastern Wood-Pewees are normally present during the breeding season. This year they certainly passed through in migration, but apparently did not stay to attempt breeding. The fairly common Red-eyed Vireo was represented at best by just 4 territorial males. I estimate that no more than 3 Yellow Warbler males established territories and they were confined to the boardwalk area of the outer Haul Road peninsula. At least Yellow Warbler was confirmed as a breeder when observers spotted adults feeding 2 fledglings on 12 July. Paradoxically,

Common Yellowthroats seemed slightly more numerous at Dyke Marsh in 2009 than in previous years, with a minimum of 6 males establishing



Bald eagles were BBS confirmed breeders for the first time. Photo by T.D. Hobart.

territories just along the Haul Road. Several more singing males were present in the south marsh. However, try as we might, we could not confirm this species as a breeder.

Finally, I would like to introduce 2 new first time confirmed breeders to the Dyke Marsh Breeding Bird Survey. They are Bald Eagle and Eastern Phoebe. With the species increasing, it was inevitable that Dyke Marsh would eventually host breeding Bald Eagles. Two eagle nests were under construction by December 2008. The first was partially concealed from view in the wooded area just north of the exit to Morningside Lane and the second was in an exposed location in a small stand of trees by the golf course. First time breeders may have occupied the golf course nest. The breeding pair went through the proper courtship rituals, but the female either never laid eggs or neglected to incubate them, resulting in nest failure. The Morningside Lane breeding pair was more fortunate and produced 2 healthy fledglings. The Eastern Phoebe pair may have found the new docks installed at the marina after the September 2003 visitation of Hurricane Isabel suitable to raise a brood of youngsters. Their nest was built under one of the docks. Although it took them several years to find the location, Eastern Phoebe is a nice addition to the breeding avifauna at Dyke Marsh. I hope they stop by again next year.

I have made a decision not to mention the names of participants in the breeding bird survey in the main text of

this report, largely because I am unable to include everyone without sacrificing flow and continuity. However, not one participant should be neglected because the survey is a collective effort and everyone makes a contribution. Therefore, I reserve the last paragraph to mention all the participants and thank them for their enthusiasm, both to those who surveyed one of the designated land or water routes and those who led one of the Sunday morning walks during the survey period. Whether it was documenting an Eastern Kingbird pair making a second breeding attempt, the rebound of the Least Bittern, or the continuing plight of the Marsh Wren, the volunteers in the 2009 breeding bird survey provided invaluable data to permit me to write this report. A big thank you to all of you.

In alphabetical order, they are: Andy Bernick, Ed Eder, Myriam Eder, Sandy Farkas, Kurt Gaskill, Susan Haskew, Gerry Hawkins, Paul Kane, Phil Kenny, Elizabeth Ketz-Robinson, Glen Koppel, Dorothy McManus, Ginny McNair, Larry Meade, Roger Miller, David "Nick" Nichols, Mike Pollack, Marc Ribaldo, Rich Rieger, Don Robinson, Peter Ross, Trish Simmons, Paula Sullivan, Sherman Suter, Margaret Wohler, Christina Wohler, Frances Zorn.

The 2009 Breeding Bird Survey results are as follows:

**Confirmed - 40 Species**

Canada Goose, Wood Duck, Mallard, Least Bittern, Osprey, Bald Eagle, Ruby Throated Hummingbird, Red-bellied Woodpecker, Downy Woodpecker, Northern Flicker, Acadian Flycatcher, Eastern Phoebe, Great Crested Flycatcher, Eastern Kingbird, Warbling Vireo, Blue Jay, Fish Crow, Tree Swallow, N. Rough-winged Swallow, Barn Swallow, Carolina Chickadee, Tufted Titmouse, Carolina Wren, Marsh Wren, Blue-gray Gnatcatcher, American Robin, Gray Catbird, Northern Mockingbird, European Starling, Yellow Warbler, Prothonotary Warbler, Northern Cardinal, Red-winged Blackbird, Common Grackle, Brown-headed Cowbird, Orchard Oriole, Baltimore Oriole, House Finch, American Goldfinch, House Sparrow.

**Probable - 8 Species**

Mourning Dove, Yellow-billed Cuckoo, Red-eyed Vireo, Northern Parula, Common Yellowthroat, Eastern Towhee, Song Sparrow, Indigo Bunting.

**Possible - 21 Species**

Cooper's Hawk, Red-shouldered Hawk, Killdeer, Spotted Sandpiper, Chimney Swift, Belted Kingfisher, Hairy Woodpecker, Pileated Woodpecker, Eastern Wood-Pewee, Willow Flycatcher, White-eyed Vireo, American Crow, Purple Martin, White-breasted Nuthatch, House Wren, Veery, Wood Thrush, Brown Thrasher, Cedar Waxwing, American Redstart, Scarlet Tanager.

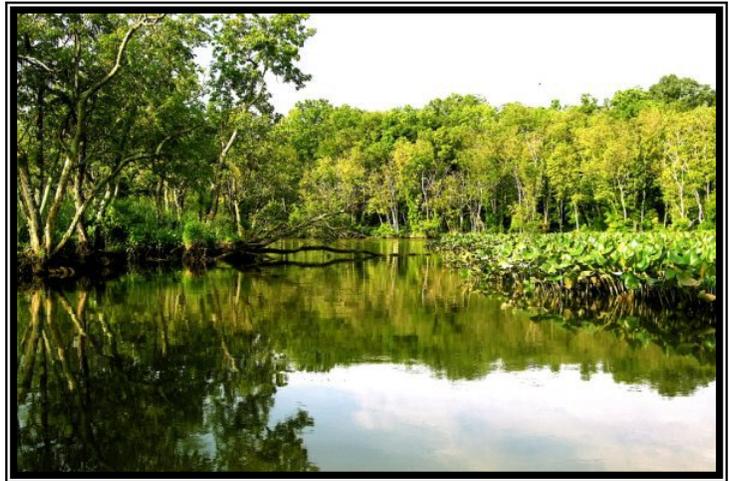
**Present - 19 Species**

Greater Scaup, Lesser Scaup, Red-breasted Merganser, Common Loon, Double-crested Cormorant, Great Blue Heron, Great Egret, Black-crowned Night Heron, Turkey Vulture, Semipalmated Sandpiper, Whimbrel, Ring-billed Gull, Caspian Tern, Forster's Tern, Rock Pigeon, Yellow-throated Vireo, Swainson's Thrush, Blackburnian Warbler, Blackpoll Warbler.

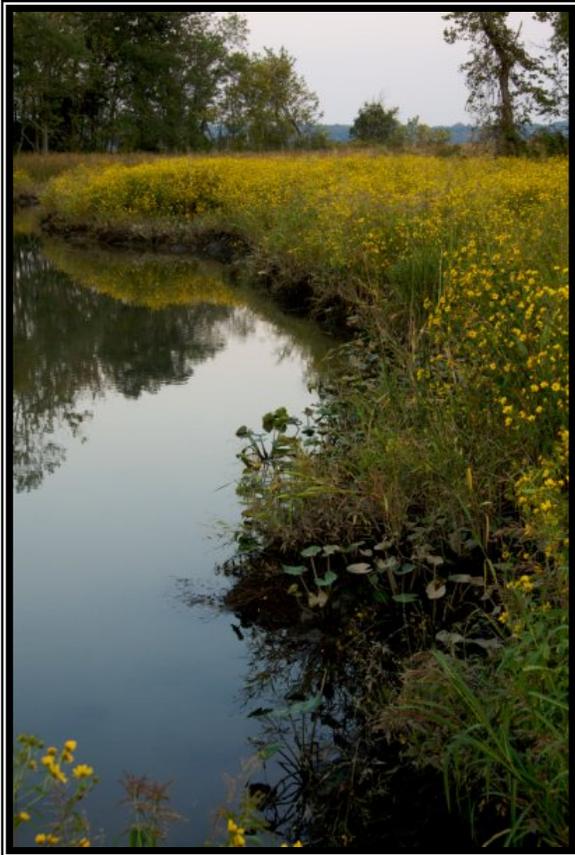
*Larry Cartwright has been the Dyke Marsh Breeding Bird Survey Coordinator for the past 17 years.*

## FODM Presents Photos to Elected Officials for 50<sup>th</sup> Anniversary

As part of the 50<sup>th</sup> anniversary celebration, the Friends of Dyke Marsh presented photographs to our elected officials who have helped in the efforts to protect Dyke Marsh. The photos, taken by FODM members, were professionally printed by Dale Photo and beautifully framed with descriptive plaques attached. FODM President Glenda Booth presented Congressman John Dingell and Congressman Jim Moran their photos at the celebration on October 4 .



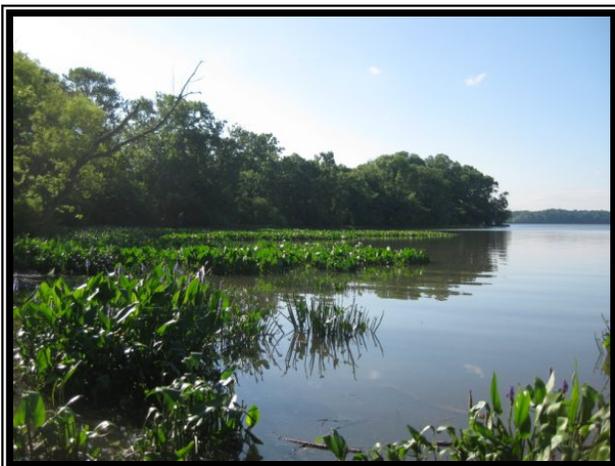
Presented to Congressman John Dingell. Photo by Ed Eder.



To Senator Mark R. Warner. Photo by Valerie Gregg.



To Senator Jim Webb. Photo by Ned Stone.



To Congressman Gerry Connolly. Photo by Ned Stone.



Presented to Congressman Jim Moran. Photo by Paula Sullivan.

In our study fireflies, adults of *Photinus* and *Photuris* have lights, and those of the other three genera are not luminous. I am glad that I am having an invaluable chance to learn more about fireflies and other organisms by working in DMWP.

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*Dr. Edd Barrows is the Director, Center for the Environment, Georgetown University in Washington, D.C.*

The National Zoo and Smithsonian Institute has a neotropical migratory birds website including details on species, altitudes and distances. See [http://nationalzoo.si.edu/ConservationAndScience/MigratoryBirds/Fact\\_Sheet/default.cfm?fxsh=9](http://nationalzoo.si.edu/ConservationAndScience/MigratoryBirds/Fact_Sheet/default.cfm?fxsh=9)

## Twenty New Members Added to FODM

Our rolls continue to grow as we added twenty new annual FODM members over the summer. They are:

Mohammad & Karen Ansari, Sally Chalmers, Barbara & Tony Cornyn, Barbara Crapa, Betty & Lee Fees, Jim & Betsy Fowler, James Hutzler, Mr & Mrs. Anthony J. Lapallo, Bob & Tricia Long, Mair McCafferty, Michael Nelson, Betsy Stephens, Caroline & John Town. Welcome!

U. S. Park Police, Emergency Number: 202-619-7300

## Sunday Morning Bird Walks



Bird walks are held every Sunday morning, all year. 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. Photo by Ed Eder.

## FODM Membership - Dues and Contributions

Support the Friends of Dyke Marsh by becoming a member or renewing your membership. Benefits include the Friends' quarterly publication, *The Marsh Wren*; quarterly 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 Dyke Marsh, our local natural treasure. To renew your membership, please send your tax-deductible contribution, 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. Additional contributions are most welcome. These help defray FODM's operating costs and support special programs and research. The mailing label on this *Marsh Wren* indicates membership status. Next to your name, one of the following will be indicated: LM — life member; \*— complimentary copy; 07, 08, etc. — the year your membership expires. If the date indicated is 08 or earlier, please renew right away to keep *The Marsh Wren* coming and to continue your support of Dyke Marsh.

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 Barbara Perry. You may contact them by mail at FODM, P.O. Box 7183, Alexandria, Virginia 22307-7183, by telephone or by email (see page 2).

# Dyke Marsh Wildlife Preserve: A Wondrous Wealth of Species

BY DR. EDD BARROWS

Dyke Marsh Wildlife Preserve (DMWP) is a wonderfully complex ecosystem. It may have as many as 18,000 organisms, from bacteria through Bald Eagles. Perhaps there are as many as 4,000 arthropod species in the Preserve. About 1,000 of these species and putative species are listed online at <http://www9.georgetown.edu/faculty/barrowse/nps/dmwp.cfm>.

About five of the species that my lab found are evidently new to science. One of these species not yet named is a tiny diapiiid wasp (pictured). I suggest that a wasp taxonomist name it *Belyta dyke-marshiensis* (Dashing Dyke Marsh Belyta Wasp). My lab hopes to publish many papers on DMWP's arthropods, and has, so far, published papers on alderflies, fireflies and the forest-arthropod community (references below). A paper on ear-



Tiny diapiiid wasp from DMWP, evidently not yet named. Photo by Dan S. Kjar. Copyright 2009, Georgetown University.

wigflies, hangingflies, and scorpionflies is being processed by a scientific journal as I write and may be published 2009.

With regard to fireflies, our study analyzed 727 individuals that six Townes-style Malaise traps caught in 1998–1999. Two student investigators and I found *Ellychnia corrusca* (Linnaeus), *Lucidota atra* (Fabricius), *Photinus pyralis* (Linnaeus), *Pyractomena lucifera* (Melsheimer), and *Pyropyga decipiens* (Harris), as well as at least three *Photuris* spp. that we could not identify to species by keying. The *Photuris* are very similar appearing and their males can be identified to species by their light-flashing patterns. However, our traps killed these fireflies in ethanol, so we did not have living ones to examine. You can learn much

more about DMWP fireflies from our paper at [https://gushare.georgetown.edu/xythoswfs/webui/\\_xy-5417869\\_1-t\\_Zk0HDGV1](https://gushare.georgetown.edu/xythoswfs/webui/_xy-5417869_1-t_Zk0HDGV1).

(continued on page 15)

The  
Marsh Wren

The Friends of Dyke Marsh  
P.O. Box 7183  
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