

# The Marsh Wren

SINCE 1976

THE FRIENDS OF DYKE MARSH

WINTER 2011



## The Friends of Dyke Marsh

### FODM Quarterly Meeting

Wednesday, March 2, at 7:30 p.m., Huntley Meadows Park, 3701 Lockheed Boulevard, Alexandria, VA 22306. Phone 703-768-2525. Free to all.

### Calendar of Events

April 9 & 16, Dyke Marsh Cleanup; April 23, See Raptors Close Up (see page 6); 2011 Quarterly Membership Meetings - March 2, May 18, September 14, November 16.

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## Edward Risley (1923 - 2010)

### A Dedicated Conservationist and Environmental Activist

BY JEB BYRNE

Ed Risley, who died the day before Christmas this past year, was one of the best friends of the Potomac River wetland we know as Dyke Marsh. This was no passing fancy for him. He was one of the founders of the Friends of Dyke Marsh (FODM) in 1976, and was active in its affairs ever since. In recent times the organization gave him the title Founding Member and Chair Emeritus, but no matter what title he might be serving under, his purpose was the same. He expressed it cogently in an interview in the documentary film, *On the Edge* about the marsh two years ago: "Keep the marsh as natural as possible."

In a busy area like the Nation's capital, that is no easy chore. There is always someone who wants to use the Dyke Marsh Wildlife Preserve or immediate surroundings for some worthy but incompatible purpose. The proprietor, the National Park Service, needs all the help it can garner to keep the focus on the designated purpose.

It's a shame that Ed will not be around when promised restoration of parts



Ed Risley, FODM founding member and its first president. Photo by Ed Eder.

of the wetland, which were heavily damaged by commercial dredging for sand and gravel years ago, is finally accomplished. That will be a happy day for those who support this ancient marsh.

The Friends of Dyke Marsh under Risley's leadership kept a weather eye on all developments affecting the marsh over the years. The organization supported research, ran bird walks, sponsored cleanups. All those things continue under the present leadership of FODM. Risley also participated in many other environmental

**RISLEY,** (Continued on page 2)

## Owls - Birds of Mystery and Majesty



Spotted Owl in AZ.  
Photo by John Spahr.

Join the Friends on March 2 to hear John Spahr speak on "Owls - Birds of Mystery and Majesty." Our program is co-sponsored by the Raptor Conservancy of Virginia and the Northern Virginia Bird Club. John will share his knowledge of these nocturnal birds with a digital pres-

entation that includes some amazing images. The program will cover some of the unique and special adaptations, behaviors and "life styles" of owls. It continues with an elaboration of some of our more common eastern owls. Spahr's lifelong interest in birds began in his early teens and was rekindled and augmented in the last 20 years while he has lived in the Waynesboro/Staunton area. He started and captained the VSO Roving Ravens that competed in the World Series of Birding in 2001 and 2002. He has also

**OWLS,** (Continued on page 2)

## Amazing Arthropods Featured at FODM

The sialids, types of insects in the Dyke Marsh Wildlife Preserve, set Virginia records, Dr. Edd Barrows told the Friends on November 17. Some wasps, now without scientific names, may set records too. The preserve is “extremely rich in species” and is a “productive habitat.” Barrows walked the 60 attendees, including 25 West Potomac High School students, through taxonomy 101 -- beetles, fireflies, earwigs, flower flies, ants, bees, parasitic wasps, butterflies, moths, damselflies, dragonflies and more. An entomologist at Georgetown University, he heads the Georgetown’s Center on the Environment and has conducted research in the preserve for many years.

There are upwards of 18,000 species in the preserve, including 6,000 species of insects, of which 1,000 species are named, he said. Bugs are unappreciated, but they are the “little things that run the world,” quoting renowned biologist Edmund O. Wilson. They pollinate, provide food, disperse seeds and aerate the soil. Barrows has collected over one million insects for study in Dyke Marsh in nets called Malaise traps and needs over 20 “scientist years” to analyze them. He cautioned that “broadcasting” pesticides, all too common in suburbia, kills beneficial insects.

The students from Ms. Acosta’s Advanced Placement Environmental Science class joined others in starting their “life list” of insects. Though attendance was required, “It is still cool,” raved Isabelle Cooksey. Barrows wrote, “FODM is such a special conservation group and a great case study of such groups, and I feel fortunate to belong to it.”

RISLEY, (Continued from page 1)

projects, keeping in mind the abjuration to “think globally and act locally.”

Besides his volunteer environmentalism, Risley had an active federal career. Trained as a geographer, he was scientific advisor to the Departments of Interior, State, Defense and the National Academy of Sciences. He leaves his wife, Cynthia, three sons, and three granddaughters.

Ed Risley taught many of us how to be environmentalists.

Editor’s Note: Generous FODMers and friends of Ed and Cynthia have contributed to FODM in memory of Ed, and tributes continue to come to us. Here are examples: “Ed Risley was the driving force for the preservation of Dyke Marsh. His gentle but persuasive enthusiasm was contagious.” “Edward Risley...the ‘father’ of Dyke Marsh.” We will miss him.

OWLS, (Continued from page 1)

traveled and birded in most continents and many countries including places like New Guinea, Cuba, and southern Africa and, most recently, Chile. After a 30-year medical career as a pathologist, he retired Dec. 31, 2009. He participated in a Big Year in 2010, attempting to see as many birds as possible in North America in one calendar year. Flying 54,000 miles and driving 33,000 more, he counted 704 species of birds in North America, including all of its owls, an experience he found “exhausting and exhilarating.”

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[www.fodm.org](http://www.fodm.org)

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](http://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

In our film *On the Edge*, Ed Risley says that lying in bed in his home he could hear the dredges chewing up Dyke Marsh. He was moved to act. We lost Ed Risley on Christmas Eve. It was a huge loss.

Ed was a leading founder of FODM and gave many hours to conservation and restoration of Dyke Marsh. He was respectful and focused, soft-spoken but strong. He was an inspiration.

Ed cared about our precious preserve to the end. Last fall, he invited me to give a presentation and show our film at the Goodwin House where he and his wife, Cynthia, lived. It was obvious to me that he had won over many new Dyke Marsh devotees there. He still had that great sparkle in his eyes.

In this issue we honor our distinguished founder. We will all miss him terribly. The family suggests that memorial contributions be made to the Goodwin House Foundation, 4800 Fillmore Avenue, Alexandria, VA 22311 or to the Friends of Dyke Marsh.

And now for some good news from our Sunday walks coordinator, Kurt Gaskill. On the December 18 Christmas Bird Count in the preserve, surveyors saw 65 species, which is three species above the 12-year average. They identified two species in Dyke Marsh never before found during the Christmas Bird Count season -- the Northern Harrier and Dunlin.

There were "phenomenal numbers of Carolina Chickadees and Tufted Titmouse," reported Kurt, "both simultaneously nearly reaching historic highs. Also, what is especially interesting in the historical record is the number of rare species that come through Dyke -- 40 species have been recorded. This shows that Dyke is a great place to find these birds as they are difficult (or not even recorded) in other locations in the D.C. area during this period."

### Protect the Marsh

We continue to face challenges on all "sides" of Dyke Marsh. The U. S. Park Police have had several cases of prohibited commercial gill net fishing operations and turtle poaching in the preserve. Trash is never ending. The marina's Chip Johnston sawed up and removed a derelict flotsam dock from the shore and you may notice that the refrigerator on the island is thankfully gone. "We treat this world of ours as though we had a spare in the trunk," said a fortune cookie message. Thanks to all for your diligence.

A Virginia Department of Environmental Quality (DEQ) study found that Hunting Creek and Cameron Run do not meet water quality standards for E. coli bacteria. The state is developing a TMDL, an acronym for total maximum daily load, a pollution "diet" specifying the maximum amount of a pollutant that waters can receive without exceeding water quality standards. NPS has no recent data

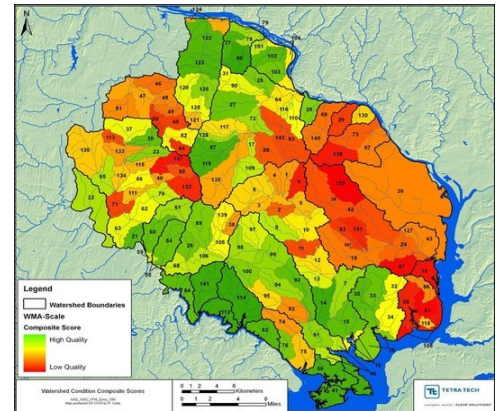
on E. coli in Dyke Marsh.

E. coli bacteria indicate the presence of pathogens. E. coli bacteria get into streams from pets and wildlife feces, failing septic systems and sanitary sewer spills or leaks, says DEQ.

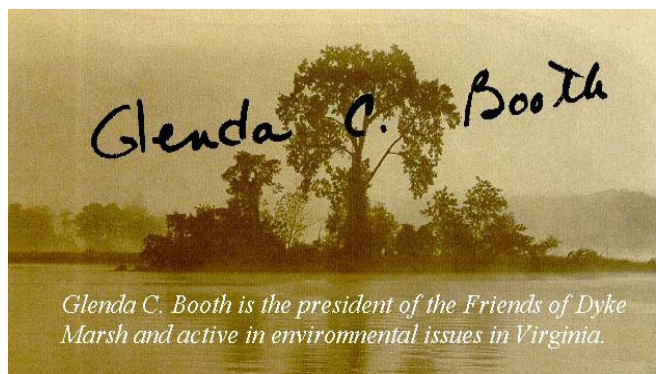
DEQ's report targets Alexandria's combined sewer system as a major source of the bacteria, a system that primarily serves 560 acres of Old Town. Unlike systems that send household waste directly to a treatment plant, the combined sewer system can discharge untreated sewage directly into area waters, especially during storms. The city of Alexandria may have to reduce bacteria by 80 percent at one discharge point and 99 percent at another.

The Fairfax County Board of Supervisors approved a plan to improve water quality in the Belle Haven watershed. Much of this watershed's runoff ultimately ends up in Dyke Marsh. The county's analysis concluded that "the Belle Haven watershed is the poorest quality watershed in the County" (see watershed quality map above) with the following stream habitat conditions: fair, 26%; poor, 46%; and very poor, 28%. Much of the poor water quality results from runoff from large impervious surfaces upstream of the marsh. The watershed is 32 percent impervious.

Stay vigilant!



A map of the county's watersheds showing quality from high (green) to low (red). Most of the Belle Haven watershed (lower right), which includes Dyke Marsh, is low quality. Map courtesy Fairfax County, Virginia.



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

## Results of the 2010 Dyke Marsh Breeding Bird Survey

BY LARRY CARTWRIGHT

The 2010 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 22 and Sunday, July 4, 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 80 species at Dyke Marsh during the 2010 survey. By the time data collection was completed, they had collectively confirmed 37 species as breeders, recorded 7 species as probable breeders, and reported 24 species as possible breeders. An additional 12 species were present in the survey tract during the official reporting period, but were considered not to be in suitable breeding habitat.

Ospreys have a large and very visible presence at Dyke Marsh, so I was surprised when the data showed a reduced breeding success during the 2010 breeding season. Last year Ospreys occupied 13 nests and most of them produced fledged young. At least 5 of the rootball nests were washed away by flooding following the February 2010 snowstorm, and in the case of the 2 rootball nests lying off the north end of the picnic area, the fallen-over trees supporting the nests also were washed away. By April 9 a Canada Goose occupied the long-established nest at Pipeline Bay, presumably to incubate her own eggs. In some cases destroyed or abandoned nests were replaced after Osprey breeding pairs began arriving in early March. The Osprey pair nesting between the islands off the Haul Road peninsula rebuilt their nest on a neighboring rootball and the Pipeline Bay nest was replaced by new construction near the southern shoreline of Pipeline Bay, a location we unofficially refer to as Barge Point.

The survey volunteers documented 10 active Osprey nests. Surprisingly, only 4 of these nests produced nestlings: the platform nest across from Hunting Creek, the pilings nest in the channel, the well-known marina nest, and the newly-constructed nest at Barge Point. The marina breeding pair also suffered nestling mortality, losing 1 of 3 original nestlings. I am hard pressed to explain the low success rate. Surely the destruction of several nests in post-snowstorm flooding did not play a role. Although the foundations remained intact, even the successful nests on the pilings and the marina had to be rebuilt from scratch. Problems with the prey base? The marina pair appeared to have

no problems catching and bringing in fish. There could be several explanations for the loss of 1 nestling besides starvation. A host of first-time breeders? There is little way to prove this without an identifying band on each bird. We will have to wait and see the results of the 2011 survey and speculate that this was a temporary, if unexplainable situation.

The Bald Eagle nest near Morningside Lane was successful

for the second straight year. The single nestling was last documented in the nest on June 13 and a canoe team later reported it perched in the company of its parents near the nest site on June 27. In contrast to the successful breeding effort at Morningside Lane, the bald Eagles occupying the golf course nest failed again. I received reports in March of problems between the original breeding pair followed by speculation that the male had been replaced. By April 10 an Osprey was perched in the nest. Soon thereafter the nest appeared to be abandoned.

Least Bitterns initially confounded me. In the Big Gut, one week's survey results produced no birds only to be followed the next week by a report of a half dozen individuals. This persisted for the entire survey. Least Bitterns appeared scarcer in the marsh vegetation around Haul Road. By Independence Day the volunteers had documented only a single individual in this location. Then on July 11, members of the Sunday morning walk reported a fledgling flying over the marsh accompanied by its parents and a canoe team photographed a Least Bittern nest with a female standing nearby.

Marsh Wrens were far easier to find, but the population showed no evidence of increasing. Only about 12 males established territories in the marsh vegetation along the Haul Road peninsula and adjacent Hog Island and a single songster was present just south of the Little Gut. Yet by the end of the survey observers reported football-shaped Marsh Wren nests dotting the channel separating the peninsula from Hog Island. At least the first decade of the 21st Century ended with Marsh Wrens maintaining a presence at Dyke Marsh.

I received photographs of a Northern Parula, a Prothonotary Warbler, and a Cedar Waxwing with nesting material snug in their beaks, confirming all 3 species as breeders. These photographs were followed by an observation of a



A Cedar Waxwing carrying nesting material at Dyke Marsh. Photo by Paula Sullivan.

**BREEDING BIRDS,** (Continued on page 5)

**BREEDING BIRDS,** (Continued from page 4)

Cedar Waxwing engaged in nest building on May 23rd and a bird sitting on the nest the following week. A Prothonotary Warbler was documented on June 20 carrying food to an unlocated nest at Pipeline Bay.

Volunteers documented territorial Warbling Vireos throughout appropriate habitat during the 2010 survey, but it was in the north picnic area on June 5 that a bird was seen carrying nesting material, thus confirming this species once again as a breeder. Great Crested Flycatchers were reported in small numbers, primarily from the wooded area next to the south picnic area and the marina, and it was from here that an observer reported a breeding pair tending to 3 fledged youngsters on July 11. Acadian Flycatchers and Red-eyed Vireos concentrated their breeding efforts along the parkway south of the Big Gut footbridge. An Acadian Flycatcher was sitting on a nest located at the end of the branch of a Red Maple approximately 10 feet above the paved trail just south of the Tulane Drive parking lot during



A Prothonotary Warbler exhibits nesting activity. Photo by Ed Eder.

a June 13 survey. The following week volunteers observed a Red-eyed Vireo feeding a fledged youngster near the same location. Barn, Tree, and Northern Rough-winged Swallows were again confirmed as breeders during the 2010 survey. Observing fledgling Northern Rough-winged Swallows perched on a snag off Dead Beaver Beach waiting to be fed by busy parents has just about become a yearly tradition. What can you say about Eastern Kingbirds? Just one thing. They continue to be prolific. Rounding out the list of notable breeders are Orchard and Baltimore Orioles. Despite an initial outbreak of anthracnose in the Sycamores, a condition that appeared to disrupt oriole breeding success in 1998, both species successfully produced fledglings in 2010.

Honorable mention for the 2010 breeding bird survey goes to Eastern Towhee and Green Heron. I received a report of an independent juvenile Eastern Towhee along Haul Road on June 20 in an area where an adult had been observed on May 16. A canoe team observed a presumably independent juvenile Green Heron on Independence Day. The kicker is that an adult also was reported, but at a distance so that the juvenile appeared to be neither dependent nor even associated with this individual. Breeders or dispersed birds?

I'd like to conclude with a mention of breeding waterfowl at Dyke Marsh. Canada Geese and Mallards have

been common breeders for the nearly 2 decades that I have been compiler. They continue to be so, but I have noticed a change in the pattern of Mallard breeding. In previous years the tendency was to see Mallards breeding early in the season with a hen accompanied by up to a dozen nearly grown youngsters by mid to late June. Observing small ducklings after this time was unusual. This year I received a number of reports of Mallard hens with recently hatched ducklings well into late July or August. What is occurring here? Is it possible that Mallards are double or even triple clutching because of high rates of nest failure early in the season? Why also the trend toward smaller clutches? Could it be a high rate of depredation of eggs and ducklings or perhaps high egg infertility rates or even embryonic mortality? This is something I will be watching in 2011. Finally, you may notice that the confirmed category for 2010 is missing a familiar, and until this year, consistent breeder at Dyke Marsh: the ever popular Wood Duck. I sincerely hope that in 2011 we will again enjoy the sight of Wood Duck youngsters in the care of their mother.

**The 2010 Breeding Survey Results:**

**Confirmed-37 Species:** Canada Goose, Mallard, Least Bittern, Osprey, Bald Eagle, Mourning Dove, Red-bellied Woodpecker, Downy Woodpecker, Acadian Flycatcher, Great Crested Flycatcher, Eastern Kingbird, Warbling Vireo, Red-eyed 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, European Starling, Cedar Waxwing, Northern Parula, Yellow Warbler, Prothonotary Warbler, Northern Cardinal, Red-winged Blackbird, Common Grackle, Orchard Oriole, Baltimore Oriole, House Finch, American Goldfinch, House Sparrow.

**Probable-7 Species:** Yellow-billed Cuckoo, Hairy Woodpecker, Pileated Woodpecker, Eastern Wood-Pewee, Common Yellowthroat, Song Sparrow, Indigo Bunting.

**Possible-24 Species:** Wood Duck, American Bittern, Green Heron, Cooper's Hawk, Red-tailed Hawk, Killdeer, Spotted Sandpiper, Chimney Swift, Ruby-throated Hummingbird, Belted Kingfisher, Northern Flicker, Eastern Phoebe, American Crow, Purple Martin, White-breasted Nuthatch, Wood Thrush, Gray Catbird, Northern Mockingbird, Brown Thrasher, Black-and white Warbler, Scarlet Tanager, Eastern Towhee, Chipping Sparrow, Brown-headed Cowbird.

**Present-12 Species:** Ruddy Duck, Double-crested Cormorant, Great Blue Heron, Great Egret, Black-crowned Night-Heron, American Coot, Laughing Gull, Ring-billed Gull, Herring Gull, Caspian Tern, Forster's Tern, Rock Pigeon.

I wish to thank all the volunteers for their participation in the 2010 Dyke Marsh BBS. In alphabetical order: Dave Boltz, Ed Eder, Myriam Eder, Sandy Farkas, Kurt Gaskill, Susan Haskew, Phil Kenny, Elizabeth Ketz-Robinson, Glenn Koppel, Dorothy McManus, Ginny McNair, Larry Meade, Roger Miller, Elton Morel, David "Nick" Nichols, Marc Ribaud, Rich Rieger, Don Robinson, Peter Ross, Molly Ross, Trish Simmons, Ned Stone, Paula Sullivan, Melina Tye, Rob Tye, Margaret Wohler, Frances Zorn.

## An Essay On Dyke Marsh

(With a tip of the hat to Alexander Pope)

I  
The wheeling flock of migrant birds sets down  
in the greening wetland turned from brown,  
and songbirds sing their ardent breeding songs,  
inviting us to join spring's buoyant sing-alongs.  
But all is not at ease between the two.  
The human partners do not always choose to woo.  
Man's exploitation has been long and harsh  
of the Potomac wetland called Dyke Marsh.  
Formed by nature in the long-ago,  
its sword-like plants of narrow cattails grow  
and hold the marsh wrens' real and bogus nests  
to fool the predators who've wrongly guessed  
which woven homes clutch tasty birds in shells.  
The red-wing blackbirds perch like sentinels  
above the teeming plants and crawling life  
with which this fecund nursery is rife.

II  
The first abuse by men inflicting harm  
were schemes to dyke the marsh for land to farm.  
(The storms and spring floods soon took care of that.  
A lust for land prompts nature's caveat.)  
But men then thought of profits to be made  
by dredging sand and gravel ages laid  
in layers under other sediment.  
They scalped the marsh for riches roughly rent  
and hauled away till half the marsh was gone.  
Some congressmen were energized by scorn  
for blatant raids on the environment.  
Their legislation saved the marsh remnant  
and promised to restore the damage done,  
a pledge ignored although the principle was won.

The time has come to honor what was pledged,  
restore the gouged out areas dredged  
and save this tiny wetland of the past  
when Potomac-rimming marshes were so vast.  
As erosion gnaws away at what is left,  
marsh guardians fear that a river bereft  
of an environmental treasure could result.  
But hold! There should be reason to exult.  
Technology now can find the way, the how, and when  
to restore at least a portion of what had been.  
Stewardship is now put to the test,  
and "Hope springs eternal in the human breast."  
III

The problem of misuse won't go away  
although the very name is clear as day:  
"The Dyke Marsh Wildlife Preserve."  
Its purpose is precisely to conserve,  
its name and function accurately styled,  
reflecting concentration on the wild.  
The people's role is passive. That is clear.  
Observe the wildlife and do not interfere.  
Yet sometimes there are strange proposals made--  
the wildlife purpose conveniently mislaid--  
for expanding sports activities and the like  
in the area of the marshland that we call Dyke.  
Now there is a new request we should dread.  
Zounds! Put a dogpark in Dyke's watershed?

— Jeb Byrne  
(A former president of the Friends of Dyke Marsh.)

*This poem was testimony of Jeb Byrne prepared for a hearing before the Fairfax County Park Authority on October 14, 2010.*

### See Raptors Close Up at Dyke Marsh

Mark your calendars now for a special event on the morning of April 23 when a representative from the Raptor Conservancy of Virginia, will give us an opportunity to see native species of hawks, owls and falcons -- magnificent creatures -- up close as part of Earth Day celebrations. The Raptor Conservancy of Virginia will show several raptors and you will be able to talk with the handlers about the birds. RCV speakers will also give a short program and discuss raptor species found in this area, their habitat and other characteristics. The National Park Service is partnering with FODM to present this special program and we may have a ranger-led wetlands walk as well. Bring your camera! Check our website [www.fodm.org](http://www.fodm.org) for the specifics in a few weeks.



Barred Owl (*Strix varia*).  
Photo by Kent Knowles.

### Where are the waterfowl?

Ducks Unlimited, a waterfowl hunting organization, has a migration map on its website. When you click on a spot on the map, you can read reports of waterfowl present in the area. You can also sign up to get an email when DU gets reports at <http://www.ducks.org/migrationMap/>.

**SEDIMENTS**, (Continued from page 8)

throughout the marsh. Results on several time scales - month, season, year, and decade - are presented in the paper.

This research by Palinkas and Walters is not yet complete. Also, the sediment results vary considerably from place to place in the marsh. For those reasons, it is not yet possible to draw any firm conclusions about gain and loss over the whole marsh. Reading their report, however, suggests that while the marsh is generally gaining in deposited sediments, it may nonetheless be losing to subsidence.

## The Marsh Wren and the Internet

This issue is our very first sent out to you electronically. We hope you enjoy our familiar format arriving in your email box. We have introduced a second mail box address, editorFODM@msn.com, to join our existing mailbox: editor@fodm.org, to assure compatibility with more email servers. You can use either of these email addresses to write to us, or use the contact information on page 2 of this newsletter. Please keep us current with your email addresses, or if you prefer to receive paper copies of the newsletter, let us know that too. Comments are always welcome. - Editor, *The Marsh Wren*

### FODM Spring Calendar

April 9 - Dyke Marsh Cleanup, with NPS.  
April 16 - Dyke Marsh Cleanup, with NPS.  
April 23 - Earth Day celebrations and Raptor Conservancy Activity at Dyke Marsh - see p. 6.  
May 18 - FODM spring Quarterly Meeting at Huntley Meadows Park Visitors Center.

Check our website at [fodm.org](http://fodm.org) for times and more information. NPS contact for cleanups is Miguel Roberson, at [miguel\\_roberson@nps.gov](mailto:miguel_roberson@nps.gov)

### Join Our Weed Whackers

On the first Friday of every month, from 10 a. m. to 12 noon, the Friends help control invasive plants in the Marsh. Join us! The project is headed by Amanda Chidsey, NPS Biological Science Technician at [Amanda\\_Chidsey@nps.gov](mailto:Amanda_Chidsey@nps.gov) or 703-289-2545. The FODM contact is Ned Stone, FODM Vice-President at [nedstone@verizon.net](mailto:nedstone@verizon.net) or 703-768-5441.

## FODM Welcomes Our New Members

Please join us in welcoming our new annual FODM members Jacqueline Clouser, Marcia Crockett, Claride Mayo, Marilyn Pollow, Roma Roberts, Lynn Scholz & Richard Verville, and Arina Van Breda. Is it time to renew your membership in FODM? If your *Marsh Wren* mailing label says 10 or earlier to the right of your name, renew NOW, so you'll be up-to-date and continuing to support The Friends of Dyke Marsh. Thank you!

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. The mailing label on this *Marsh Wren* indicates membership status. **If the date indicated is 09 or 10, time to send in your renewal dues. For those with 09, renewal should be for 2 years (2010 and 2011) or \$30. If the number is 10, a \$15 renewal keeps you up-to-date.** If your label says 11, you're good for the current year. Finally, if the number is over 11 or if the label shows a \*, thanks for your continuing support of the work of FODM.

DUES AMOUNT..... \$ \_\_\_\_\_  
ADDITIONAL CONTRIBUTION..... \$ \_\_\_\_\_  
TOTAL AMOUNT ENCLOSED..... \$ \_\_\_\_\_  
  
NAME \_\_\_\_\_  
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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).

# Research on Sediment Dynamics in Dyke Marsh

**BY NED STONE**

Many of us have wondered, "Is the marsh growing or shrinking? Is it being rebuilt by the river, or are we losing it to erosion?" To provide some answers to these questions, research in the gain and loss of sediments in the marsh has been undertaken by Cindy Palinkas and David Walters of the Horn Point Laboratory of the University of Maryland Center for Environmental Science in Cambridge, MD, in cooperation with the National Park Service, building on earlier work by Katia Engelhardt. They reported their work in a poster paper at a recent conference of the American Geophysical Union. The goal of their study is more modest than predicting the ultimate fate of the marsh: "to better understand the spatial and temporal variability in sedimentary processes in a freshwater tidal marsh."

There are competing effects at work in setting the level of the marsh relative to the river. The Potomac always carries a burden of sediment, which is greatly enhanced following



A Surface Elevation Table in Dyke Marsh. Photo by Ned Stone.

heavy rain upstream. Two daily incoming tides flood parts of the marsh, and some of the river-borne sediment is left behind in those areas. Some

weather conditions can produce unusually high water levels, bringing sediments onto higher ground.

On the other hand, heavy rain in the local area can produce strong outflows, and will wash some of this sediment back out. Also working against building up the marsh are two long-term effects: sea level rise and the general subsidence of the entire Maryland-Virginia area.

Several different techniques are involved in evaluating the gain or loss of sediments. One, deployed by the National Park Service, is called a SET (Surface Elevation Table) (see photo). Researchers have installed a dozen of these in the marsh in the last decade. Other techniques involve collecting deposits on ceramic tiles and radioisotope sampling as a function of depth. These measurements were made at approximately 24 sites in locations

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**The  
Marsh Wren**

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