SINCE 1976 THE FRIENDS OF DYKE MARSH SUMMER 2015



FODM Quarterly Meeting

Wednesday, September 16, at 7:30 p.m., Huntley Meadows Park, Norma Hoffman Visitor Center, 3701 Lockheed Blvd., Alexandria, VA 22306. Phone 703-768-2525. Free to all.

Calendar of Events

August 29 - 10 a.m., Pollinator Walk; details, see page 5. October 24 - 10 a.m., Fall Colors Walk; details, see page 5. November 18 - 7:30 p.m., Fall FODM Quarterly Meeting; LoriAnne Burnette on nature's exquisite timing, phenology.

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What Is a Healthy Forest?

Challenges Include Invasive Aliens and Global Warming

Join us on September 16, 7:30 p.m., when Joe Marx will discuss what a healthy Mid-Atlantic forest might look like, whether the pre-settlement forest was in fact healthy, and what chance a healthy forest would have in our era of invasive aliens and global warming.

Definitions of forest health vary greatly along a scale from total human exclusion to total human management. Although the Mid-Atlantic states were blanketed with a largely deciduous forest at the time of European contact, the aboriginal peoples manipulated this forest to a much wider extent than is commonly realized. Today, many in the natural history community hope that the remaining Mid-Atlantic forestland can be preserved in a healthy condition. What should we aim for? What is the right balance between combating alien organisms and letting natural succession run its course? What will a seemingly inevitable global warming likely do to the composition of our forests?

Mr. Marx is an instructor in geology and forest ecology in the Natural History



Scenic view of the George Washington National Forest. Photo by Bob Veltkamp.

Field Studies program sponsored by the Graduate School USA and the Audubon Naturalist Society.

The meeting is cosponsored by the American Horticultural Society, the Potowmack Chapter of the Virginia Native Plant Society, the Fairfax Chapter of Virginia Master Naturalists and the Fairfax County Tree Commission. It will be at the Huntley Meadows Park Visitor Center. If you use a GPS device to find the park, enter the park's address, 3701 Lockheed Blvd., Alex., VA, not the park's name.

Marsh Restoration Update

The National Park Service's (NPS) George Washington Memorial Parkway office is entering into an interagency agreement with the Baltimore District of the U.S. Army Corps of Engineers (COE) to begin the design work to restore Dyke Marsh. NPS Washington, D.C., regional office officials expect to sign the agreement with the COE by August 14, 2015. The COE will start the 35 percent design of the promontory and containment cells in the fall of 2015 and COE officials expect that the design work will take 12 months to complete. Once the design is completed, NPS will have to get several

permits before starting construction of the first phase, the breakwater on the southern end of the marsh to replicate the promontory removed by the dredgers. Once permits are obtained, construction will take around two The convears.



Breakwater (orange line) is a top priority.

struction schedule will depend, in part, on the donation of appropriate fill material.

Iraqi Scientists Come to Dyke Marsh

"We are advocates for the environment in Iraq and especially marshes. We support the protection of the environment," said Sadiq AL-maliki, Chief Engineer in the Iraqi Prime Minister's Office during an April 14 visit to the preserve. "Our goal is the same as yours, to return some places to their original condition." He



NPS's Brent Steury guides Iraqi visitors in Dyke Marsh. Photo by Glenda Booth.

was part of an eight-member Iraqi delegation of engineers, hydrologists, geologists, botanists and other scientists who wanted to learn if the restoration of the marsh has any lessons for Iraq.

In the 1990s, former Iraqi Prime Minister Saddam Hussein ordered that the country's marshes in Basrah and Dhi Qar provinces be drained and that dikes be built on some of the Tigris River's tributaries. Iraq's wetlands, once the site of the Mesopotamian civilization, are of worldwide renown. "The Iraqi Marshlands constitute the largest wetland ecosystem in the Middle East," notes the United Nations Environment Programme's website.

"The nation behaves well if it treats the natural resources as asset which it must turn over to the next generation increased, and not impaired, in value."

--- Theodore Roosevelt, 1907

In Memoriam - Dr. David Johnston

Long-time FODMer Dr. David Johnston passed away on July 26, 2015, at age 88. Dr. Johnston served on FODM's Advisory Board and authored a valuable compendium of studies and data about the Dyke Marsh Wildlife Preserve (pictured, right). After serving for over 40 years in many distinguished positions, in retirement Dr. Johnston focused on



historical ornithology. According to the *Washington Post*, he published or edited seven books, including *A Guide to Bird Finding in Virginia*, *Virginia's Endangered Species*, *The History of Ornithology in Virginia* and *Ecology and Conservation of Neotropical Migrant Landbirds*. He authored around 100 articles in peer-reviewed journals on ornithology, ecology, endangered species and history of natural history. He received his Ph. D. from the University of California, Berkeley, in 1954. FODM greatly appreciates Dr. Johnston's many contributions. Dr. Johnson supervised the work of FODMer Sandy Spencer who wrote her master's thesis on the marsh wrens of Dyke Marsh.

Generous Friends of Dyke Marsh

The Friends of Dyke Marsh appreciate several recent generous donations. Members of the congregation of the Mount Vernon Unitarian Church provided a portion of their June offerings as part of their "Share the Plate" program. Alexandria Earth Champs, an organization that disbanded, donated their remaining funds to FODM. Board member Jessica Strother donated a kayak and two paddles to FODM. Thank you all for your generosity.

Editor: Dorothy McManus

Assistant Editor: T. D. Hobart

Editorial address:

Friends of Dyke Marsh P.O. Box 7183 Alexandria, VA 22307 editor@fodm.org

Visit our website at www.fodm.org or on Facebook.com

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	kewychulis@aol.com

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

Dyke Marsh will soon be ablaze in autumn hues and birds' fall migration will be in full swing. Be sure to look for mi-

grating shorebirds at low tide.

In July, we introduced some out-of-state Auduboners from Seattle, Washington, Phoenix, Arizona, and Ann Arbor, Michigan to Dyke Marsh. Larry Cartwright shared enticing factoids like these: tree swallows nested in the boom of a sailboat, purple martins nested in a mast, barn swallows nested under the docks and northern roughwinged swallows nested in a boat's exhaust pipe! We craned for sightings of the least bittern, encouraged by Ed Eder who has had spotted and photographed these beautiful, elusive birds many times this spring. See page eight of this issue for Ed's article.

Ed told the group that the poison water hemlock near the boardwalk is not the same hemlock that Socrates swallowed, but it is poisonous to humans nonetheless. The plant has white, umbrella-like floral clusters and blooms in late summer and early fall (see photo above, right). Often mistaken for Queen Anne's lace, it is a host plant for the black swallowtail larva and many insects, including the viceroy butterfly. Ed's article about the plant appeared in The Marsh Wren's Fall 2012 issue.

On July 20, two legislative staffers for Congressman Don Beyer (D-8) visited Dyke Marsh for the first time. FODM Board members and Brent Steury and Erik Oberg, NPS biologists, helped us give them a boat tour and discussed restoration.

Scientists from Iraq visited Dyke Marsh. See page two to learn about Iraq's famous wetlands and their restoration efforts

No Nesting Marsh Wrens



No evidence of nesting marsh wrens this spring for the first time ever. Photo by Ed Eder.

Despite all the good news, we are deeply disappointed that we did not see evidence of any -- zero -- nesting marsh wrens this spring for the first time ever. Our preliminary research indicates that the upper Potomac-Maryland populations and Washing-D.C.-Anacostia River marsh wren populations appear to be

declining. Several theories have been offered for the decline in Dyke Marsh, including habitat loss, disruption of the prey base, nighttime bow fishing, problems at their wintering sites and predators. Surface evidence suggests the birds' disappearance from Dyke Marsh may be a manifestation of a regional decline, but it certainly has been exacerbated by the acceleration of erosion in the south marsh. More on this sad story later.

We have completed major "housekeeping," including updating our bylaws



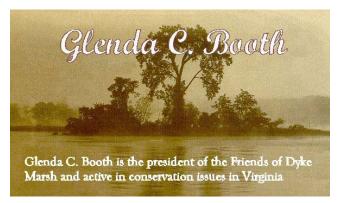
These viceroy butterflies nectar on the poison water hemlock's white floral clusters. Photo by Ed Eder.

and articles of incorporation and preparing a workplan with NPS. We are upgrading our website and online membership and donation systems. Thank you for attending or providing your proxy for our May meeting. Thank you, Duncan Hobart and Bob Veltkamp and the National Environmental Education Foundation for our website improvements. We had robust turnouts for our spring Raptor Rapture and Alice Ferguson trash cleanup. We tabled at Gum Springs Community Day on June 20 and hosted students from the T.C. Williams High School International Academy on April 24. On May 13, we supported the Park Service's project to treat a small group of pumpkin ash trees for emerald ash borer in hopes of protecting a small native breeding stock of these trees. NPS has confirmed this destructive, non-native insect at Jones Point. See article in this issue on page five. Fingers crossed.

Be sure to visit our new website and Facebook page where you'll see more news and beautiful photographs by talented FODMers. And be sure to post your photos on our Facebook page.

"The Friends of Huntley Meadows and the Friends of Dyke Marsh (FODM) do important work to keep these two jewels of our region alive and well. Without the tireless efforts of the FODM, the upcoming restoration of Dyke Marsh would likely never have happened."

-- Larry Meade, *The Siskin*, Newsletter of the Northern Virginia Bird Club, August 2015.



The Ground Beetles of Dyke Marsh

BY BRENT W. STEURY, Natural Resources Prg. Mgr.

The ground beetles (family Carabidae) represent one of the largest families of beetles in the world, with more than 33,905 described species and 2,635 species and subspecies inhabiting Nearctic North America. There is high diversity in color, body form and habitat preferences within the ground beetles. Although most adult (imago) ground beetles are nocturnal and black, nearly every conceivable color is represented. Some are highly iridescent. Most are carnivorous, though some add seeds to their diet. Ground beetles can be blind (genus Anillinus) or have eyes that are disproportionately large for their body size (genus *Notiophilus*). Many possess well developed wings and are strong fliers, while others are flightless and have short or rudimentary wings, and some species are wing-polymorphic. Many genera are capable of producing rank defensive odors using chemicals stored in the pygidial glands of their abdomen. This is perhaps most pronounced locally in the genus Brachinus which can fire from its abdominal tip rounds of hot, 212° Fahrenheit gas, capable of killing small adversaries. Body lengths range from just over one millimeter in species such as Polyderis laeva, a species found in the Dyke Marsh Wildlife Preserve, to 100 millimeter in the south Asian genus *Mormolyce*. Ground beetles with all of these body types can be found in the Washington, D.C., area. However, our largest species, ranging from 30 to 36 millimeter, are the brilliant green, caterpillar hunting, Calosoma scrutator, the brightly violaceous, snail-eating, Scaphinotus unicolor, and the rare (possibly extirpated in the Washington, D.C., area) generalist insect larvae predator, Pasimachus depressus.

Ground beetles occupy nearly every conceivable niche. Some are strong diggers and can be found in subsurface habitats, some are cave specialists and others are primarily arboreal. They are found in swamps and marshes, upland forests, meadows and deserts, from below sea level to 5,300 meters in elevation. It is not uncommon to find ground beetles in human habitations. Many species overwinter as





Paratachys oblitus is an iridescent 2.5 mm ground beetle found in moist leaf litter along the edges of Dyke Marsh. Leptotrachelus dorsalis was found only at Dyke Marsh during a survey of ground beetles near Washington, D.C. It finds shelter during the day in the sheaths of cattail leaves. Ardistomis obliquata was also found only at Dyke Marsh during the same survey. It shelters during the day in burrows dug in the soil but can be found on wet, cloudy days climbing vegetation in the three-square rush communities along the tidal shores of Dyke Marsh. Photo by Ben Smith.

adults. Adults live two to four years and the life cycle is completed within one year. Pupation occurs in the ground. Carabid fossils are common in Quaternary age deposits, many representing extant species and have been found in sediments as old as the late Tertiary Period.

With so much diversity, what do ground beetles have in common? Their antennae are inserted laterally between the eye and mandibular scrobe and are never clubbed. Abdomens consist of six segments called sternites, except in *Brachinus* species which have eight. Tarsae (lower leg parts) always contain five segments. The front tibiae (middle leg part) have developed an anatomical structure referred to as a comb, because it is used for cleaning antennae. The hind trochanters are enlarged and the legs are adapted for running. The mouthparts project outward (prognathous).

A recent ground beetle survey of national parks near Washington, D.C., documented 184 species (Steury and Messer, 2014, Banisteria pp. 40-55). Dyke Marsh was in-

cluded in this survey, from which 57 ground beetle species in 30 genera were collected or observed, including 12 species that were found only at Dyke Marsh. The survey also documented seven species new to Virginia and seven species new to Washington, D.C. Two of these new records were found at Dyke Marsh. Below is a checklist of the ground beetles of the Dyke Marsh Wildlife Preserve. Species found only at Dyke Marsh during the recent survey are marked with an asterisks (*). Species documented for the first time in Virginia are marked with an exclamation point (!). The three non-native species are indicated with a plus sign (+).

Ground Beetles of DMWP

Cicindela sexguttata Elaphrus ruscarius Schizogenius amphibious Schizogenius lineolatus *Ardistomis obliquata Semiardistomis viridis Dyschirius haemorrhoidalis Bembidion antiquum Bembidion rothfelsi Bembidion affine Bembidion impotens Bembidion patruele Bembidion rapidum Mioptachys flavicauda Elaphropus saturatus Elaphropus xanthopus Polyderis laeva

Tachys oblitus Tachys potomaca *Tachys proximus Tachys scitulus !Pterostichus sculptus +Amara aenea +Amara familiaris *Lachnocrepis parallela Oodes amaroides *Oodes fluvialis *Chlaenius emarginatus Chlaenius aestivus Chlaenius t. tricolor Notiobia terminata Anisodactylus dulcicollis *Stenolophus fuliginosus Stenolophus ochropezus Stenolophus lecontei Agonoleptus rotundatus

Agonoleptus rotundicollis Bradycellus tantillus Acupalpus indistinctus *Philodes rectangulus Harpalus pensylvanicus +Harpalus affinis Trichotichnus autumnalis Trichotichnus fulgens Agonum ferreum Agonum extensicolle *Agonum aeruginosum *Agonum octopunctatum Agonum punctiforme !*Platynus opaculus Platynus cincticollis *Colliuris Iudoviciana *Leptotrachelus dorsalis Lebia analis Lebia viridis

Pumpkin Ash Project Update

BY ROBERT SMITH

Ash trees, including the relatively uncommon Pumpkin Ash, make up a significant part of the forest canopy in Dyke Marsh Wildlife Preserve. The Emerald Ash Borer (EAB) is moving into this area and devastates ash trees wherever it goes. The Friends of Dyke Marsh, with the support of the National Park Service, is testing an approach to maintaining a small but healthy breeding stock of Pumpkin Ash trees within the marsh.

Since the ash trees have both male and female flowers and are air pollinated, a small group of mixed trees closely located to each other were selected for treatment. The treatment involves the injection of an insecticide (Tree-age) into the root flares of the selected trees. This insecticide is expected to kill any EAB infesting the tree for a period of two years.

Because the insecticide is very expensive and the treatment process is labor intensive we were only able to treat a



Insecticide is injected into the root flares of the pumpkin ash tree.

limited number of trees (nine). Depending on the size of the tree between three and six injection points need to be used and it takes about 30 minutes for the allocated dose to be drawn up into the tree.

In April, while in flower, nine trees

were selected for treatment. They are in the stand of trees in the center of the boardwalk that crosses the gut leading to the west marsh. Subsequently the Park Service GPS-located, tagged and wrapped those trees with beaver re-

sistant plastic netting. On May 13 Joshua Darkow from Bartlett Tree Experts injected them with the insecticide.

As of early August significant leaf loss can be observed among the ash trees along the boardwalk (see



Significant leaf loss is observed among the pumpkin ash trees.

picture). Presumably this is a result of EAB infestation.

However, the trees that were treated in May that can easily be seen from the boardwalk still have healthy leaf growth (see picture). Three of the treated trees are at the

edge of the grove facing south towards the boardwalk including the one closest to the boardwalk. Interestingly, a small tree next to it that was not selected due to earlier beaver damage still has full leafing. If our selected trees re-



These treated pumpkin ash trees still have healthy leaf growth.

main healthy through this year and next year we will then repeat the treatment and continue doing so every two years until the EAB infestation has passed through this area. Our objective is to maintain this small native breeding stock.

Robert Smith is an FODM board member and contributed the photos for this article.

August 29 Pollinator Walk at River Farm

Join the American Horticultural Society (AHS), the Friends of Dyke Marsh and Georgetown University's Center for the Environment for a pollinator walk in the four-acre meadow at River Farm on Saturday, August



29, 10 a.m. to 12 noon. Co-leaders are Sylvia Schmeichel, River Farm Manager and Horticulturist, and Dr. Edd Barrows, Georgetown Professor of Biology and Entomology. We will learn about the native plants there, the general ecology, and pollinators. You can read more at http://www.ahs.org/meadow. The walk will take place unless we have heavy rain. The rain date is September 12. AHS, River Farm is at 7931 East Boulevard Drive, Alexandria 22308, just east of the George Washington Memorial Parkway. For directions see www.ahs.org.

October 24 Fall Colors Walk at Dyke Marsh

FODM will host our annual fall nature walk on October 24. Dyke Marsh will be aflame in bright colors. Poison ivy and Virginia creeper vines will festoon the trees in their yellow and red hues. Goldenrod and



asters may still be in bloom, cattails will be releasing their seeds and ironweed will have fuzzy seedheads, as fall migrating birds forage and pass through. You will learn about the magenta stems and purple berries of pokeweed plants.



Pat Salamone will lead the walk and Barry Sperling will talk about clouds. Meet at the Dyke Marsh Haul Road entrance at 10 a.m. This walk will take place unless there is severe weather.

Meet the Plants of Dyke Marsh: Poison Ivy

BY PATRICIA P. SALAMONE

Poison ivy?? Why is she writing about poison ivy? Well, it's a native plant that provides significant benefits for wildlife. And it has gorgeous, colorful fall foliage—even if it is best viewed from a distance.

Eastern poison ivy (*Toxicodendron radicans*) is a member of the Sumac family (*Anacardiaceae*). In fact, poison ivy and its relatives poison sumac and poison oak were once classed in the genus Rhus with the sumacs. Today, however, these plants are most often assigned to a separate genus, *Toxicodendron* ("poison tree").

Poison ivy is a deciduous perennial that is extremely variable in form; it can occur as a ground cover, an erect shrub, or a climbing vine. The vines can become quite



The three-leaved poison ivy fall foliage is orange to red. Photo by Glenda Booth.

thick, and the aerial rootlets that enable it to climb give the vine a hairy appearance. It is a very adaptable plant and can grow in many environments, but does especially well in sunny spots like edge environments and disturbed areas (such as forest gaps).

Poison ivy is most

easily recognized by its leaf pattern. Its compound leaves have three leaflets ("leaves of three, let it be") and are alternate along the stem. They are ovate in shape; some are smooth-edged and some are notched. The young leaves are red and shiny; mature leaves are green (sometimes shiny, sometimes dull), and the fall foliage is orange to red.

The small greenish-white waxy-looking flowers bloom from May to July. Individual flowers have five parts and grow in branching clusters in the leaf axils. The smooth, round, berry-like fruits (also in clusters) mature in late summer to early fall. The fruits are nondescript in color, being variously described as yellowish, whitish, grayish, or greenish.

Poison ivy provides food for a number of animals. White-tailed deer, muskrat, and eastern cottontail rabbits eat the leaves and stems and more



Many birds, including this bluebird, eat the berries of poison ivy. Photo by Ed Eder.

than 60 species of birds (as well as some mammals) eat the fruits

For humans, though, all parts of the plant, in any season, can cause severe skin irritation. The culprit is an oil called urushiol, which is present in the sap. The name comes from "urushi," Japanese for lacquer; the sap of the Chinese lacquer tree (*Toxicodendron vernicifluum*) has been used in Asia for centuries to produce lacquer for coating wooden and metal objects.

English explorer John Smith published the first written account of poison ivy in 1624: "The poysoned weed is much in shape like our English Ivy, but being but touched, causeth rednesse, itching, and lastly blisters." Despite its known "poysonous" nature, poison ivy was among the two hundred and twenty "American Trees, Shrubs, & herbs" shipped to Europe by Philadelphia horticulturist William Bartram in October 1784. Its brilliant fall foliage must have been thought to compensate for its obvious disadvantages as a garden plant.

For more about the history of this interesting plant, see "No Ill Nature: The Surprising History and Science of Poison Ivy and Its Relatives," Boyd, Jane, and Joseph Rucker, Chemical Heritage Magazine, Summer 2013, http://www.chemheritage.org/discover/media/magazine/articles/31-2-no-ill-nature.aspx?page=1.

BITTERNS (Continued from page 8)

nrev.

At Dyke Marsh, Least Bitterns occasionally walk along the shores of tidal flats and have been observed catching fish in shallow pools.

The nest is usually constructed by the male, creating a platform of bent-over cattails or other stems arranged in a spoke-like fashion. They may use a previous year's nest as a foundation. A nest is frequently shrouded in dense cattails making detection very difficult. Most nests are three to four meters from open water and are about 60 centimeters above water with a 30 centimeter nest depth.

The female lays one egg daily for about five to six days and begins brooding after the second egg. Incubation time is 17 to 20 days and both male and female incubate eggs. The young hatch asynchronously over a four-day period and

weigh about 10 to 20 grams. By the 15th day they weigh 50 to 70 grams (almost as much as an adult.) Least Bittern voung can leave the nest by the fifth day after hatching and can grasp vegetation with their long claws. Parents pro-



A juvenile Least Bittern emerges from cover. Photo by Ed Eder.

vide food for up to 30 days after hatching.

The juvenile Least Bitterns at Dyke Marsh were first seen on July 23, near where the Haul Road meets the northernmost island. Only two young were seen, and both par-

BITTERNS (Continued on page 7)

FODM Launches New Website

We are pleased to announce the launch of our new website. We invite you to explore it and send us your comments. Our web address is still the same: www.fodm.org

For those who take advantage of our online membership services, here are some changes which should improve your experience:



- Manage your own contact information, including email
- See your renewal date as well as view your past payments.
- Pay online with a streamlined process on a secure PayPal server.

Current members should use the **Login** button **not the Register link** at the top right of the page to access these services. If you have not already received an email with instructions for logging in, please send us an email to info@fodm.org requesting a username and password to log in.

Non-members who wish to join or donate to FODM should use the "Register" link to the left of the Login link and follow the instructions on that page.

Note: If you go to our website and see our old website instead of the site shown in the above graphic, try refreshing your browser page (usually done by clicking on the refresh symbol, a half circle with an arrow, to the right of the web address at the top of the page).

Welcome New FODM Members

We welcome to our organization our new **Regular Members**: Maurice A. Barboza, Holly Brevig, Joseph Butasek, Dr. Joel Cohen, Nikki DiPalma, Greg Eddy, Kevin & Patricia Gross, James & Elizabeth McDonald, Col. Charles Sabin, Cindy Shaw, Ellie Simonson, Lee Stang, Martin Tillett, Carmen Trummer, Ed & Diann Wheeler, Janet Widmer and Brian Wild. And we welcome our new **FODM Life Members** Patricia A. Brown, John C. Hooff, Jr., Danielle Kozlowski and Jeffrey Miller. And special thanks to Regular Member Betsy Fowler who has converted to **FODM Life Member**.

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

BITTERNS (Continued from page 6)

ents were in the vicinity calling to them with various cackling sounds. On one occasion both juvenile birds responded by lurching into cover. The young birds had varying amounts of down on their heads and backs. Their bills appeared to be more gray-green than the adult's and their anterior striping was more pronounced. In addition their legs and claws were green-yellow as opposed to the brighter yellow of the adults.

Although a Least Bittern nest had been located on the North island one week before spotting the juveniles, there was no evidence of young in the nest upon inspection.

Sunday Morning Bird Walks

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

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 the Dyke Marsh Wildlife Preserve and our efforts to advocate for full restoration of the Marsh. We encourage you to save paper (trees) and mailing costs by becoming a member or renewing your membership online at www.fodm.org. Just click on the "Join" or "Donate" button on our membership page to make your tax-deductible contribution by credit card or from your bank account securely through PayPal. If you prefer, you can send a check, payable to FODM, P.O. Box 7183, Alexandria, Virginia 22307. The annual dues are \$15.00 per household; \$250.00 for life membership for an individual. You will receive a separate notice by mail or by email when your renewal is due. Thank you for your continuing support of FODM.

DUES AMOUNT		\$
ADDITIONAL CONTRIB	UTION	\$
TOTAL AMOUNT ENCL	OSED	\$
NAME		
ADDRESS		
CITY	_STATE	ZIP
TELEPHONE NUMBER		
TELETHONE NUMBER		

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

Least Bittern - Established Dyke Marsh Breeder

BY ED EDER

The Least Bittern (*Ixobrychos exilis*), arguably the smallest member of the heron family, is remarkably difficult to see on most occasions. Nevertheless, despite its furtive habits, this bittern has been an established breeder at Dyke Marsh and became the 47th species confirmed as nesting in the wildlife preserve.

The Least Bittern is a long distance migrant leaving its temperate breeding zones and moving to subtropical and southern temperate winter habitats. Some populations in southern latitudes are non-migratory. In Dyke Marsh returning birds have been seen in the first week of May, with reliable confirmations of males calling on territory by the end of May. The routes of migration from overwintering areas are poorly known but it is thought they fly mainly at night.

This bittern is only about 24 to 36 centimeters in size and weighs 80 grams (less than the weight of a Robin). It has chestnut- colored wings with buff-tan wing patches seen when it flies. Adult males have greenish-black caps and backs while females have purplish-brown backs and heads. Juvenile bitterns resemble the female but are darker and their anterior stripes are more noticeable. Males may have a reddish skin patch between the bill and eye during breeding

season.

The Least Bittern usually climbs through dense vegetation in a deliberate pattern, grabbing cattails or other stalks with its long curved claws, but it can also hop and move, ro-



The Least Bittern freezes in place and extends its neck to camouflage with the marsh reeds. Photo by Ed Eder.

dent-like through dense vegetation like a rail. It may also flutter short distances when frightened, but is capable of more sustained flights as well. On occasions it may freeze in place and extend its neck to camouflage with the marsh reeds or cattails.

Insects, fish, frogs, snakes, crayfish, slugs, snails and leeches make up most of its diet. Food items are secured while holding on to stems of emergent plants but may also be caught from hunting platforms where it stands and seizes

BITTERNS (Continued on page 6)



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