



FODM Quarterly Meeting Wednesday, September 10, at 7:30 p.m., Huntley Meadows Park, 3701 Lockheed Blvd., Alexandria, VA 22306. Phone 703-768-2525. Free to all.

Calendar of Events

Oct. 17, 7:30 p.m. - Plastic Paradise, a film, see page 2. Oct. 25, 1:30 p.m. - Annual Fall Colors Walk, see page 2. Nov. 12, FODM Fall Meeting

CONTENTS	
FODM Gets Grants	2
President's Message	3
The Pumpkin Ash	4
Plants of Dyke Marsh	5
Profile of NPS Official	6
Mystery Snails	8

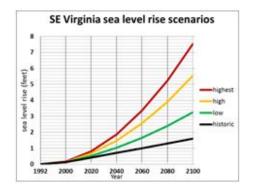
THE FRIENDS OF DYKE MARSH

SUMMER 2014

Climate Change, Virginia and Wetlands Sea Level Rise Could Impact the Mid-Atlantic

On September 10 at 7:30 p.m., the Friends of Dyke Marsh will host a presentation by Molly Mitchell, a wetland scientist with the Virginia Institute for Marine Science. She will examine the impact of climate change and sea level rise on the Potomac River and the role of tidal wetlands like Dyke Marsh in buffering storm energy, absorbing floodwaters and performing other ecological services. Ms. Mitchell grew up near Dyke Marsh and has expertise in wetlands management and upland water interface.

Virginia will be particularly affected by climate change, warned the Virginia Commission on Climate Change in 2008. The mid-Atlantic sea level will rise between four and twelve inches by 2030 and Virginia "could suffer more impacts of climate change than other states because of its latitudinal location," the commission



Sea level could rise several feet in the next 100 years. Graph courtesy of VIMS.

reported. The sea level in the Chesapeake Bay is rising twice as fast as the global average. The Potomac River could rise by as much as two feet by 2050.

CLIMATE CHANGE (Continued on page 2)

Marsh Restoration Moves Ahead

National Park Service officials have told FODM that the Dyke Marsh environmental impact statement/restoration and long-term management plan and the final document, called the record of decision, will be final this fall. George Washington Parkway Superintendent Alex Romero has designated a project manager for restoration and NPS officials are trying to develop an interagency agreement with the U.S. Army Corps of Engineers, Norfolk District, the agency that will manage the design and construction and other restoration work. NPS expects design work

to start this year and construction on the promontory to begin in early 2016.

FODM, in collaboration with the Northern Virginia Regional Commission, applied to the National Fish and Wildlife Foundation (NFWF) for a grant to fund the third phase of restoration, reestablishing the tidal connections under the Haul Road. Unfortunately, NFWF did not approve the application.

Past issues of The Marsh Wren have extensively described the goals, need and plans for restoration. To learn more, visit our website and www.nps.gov/gwmp.

Plastic in the Environment, a Film, Oct. 17

Plastic is ubiquitous in the environment and in Dyke Marsh, from bottles to six-pack rings to ping pong balls. FODM will co-host a screening of a documentary on Friday, October 17, 7:30 p.m., at Huntley Meadows Park Visitor Center. The film, *Plastic Paradise: The Great Pacific Garbage*



Many Pacific island shorelines are littered with plastic debris. Photo by PlasticParadise LLC.

Patch, investigates plastic pollution and its harm. The filmmaker, Angela Sun, goes on a journey of discovery and meets scientists, researchers and volunteers who shed light on the effects of our plastic consumption and learns that plastic is more pervasive - and more harmful - than most imagine.

Part of the film focuses on a concentration of plastic in the Pacific Ocean, known as the Great Pacific Garbage Patch. Investigators have found pieces of plastic inside birds' stomachs. Say the film's promoters, "The birds scour the ocean surface for sustenance and mistake all manner of plastic debris, bottle caps, combs, lighters and minuscule pieces of plastic for food. Many die with identifiable objects in the remains." This program is free and open to the public. For a sneak preview, you can watch the film's trailer on the internet at http://www.plasticparadisemovie.com.

FODM Awarded Two Grants

We are very pleased to announce that FODM has recently received two grants. In July, the National Environmental Education Foundation awarded FODM \$5,000 to increase our capacity to expand member and volunteer resources, with a focus on enhancing our Web site, ably managed by Duncan Hobart for many years. We hope to make the Web site more consistent with the latest browsers and devices and more user-friendly.

The Dominion Foundation awarded FODM a grant of \$4,500 to produce four seasonal brochures describing what to see in the preserve. We are very appreciative of both.

Annual Fall Colors Walk - October 25

The annual Fall Colors Walk will be held on Saturday, October 25th, from 1:30 to 3:30. Please join us to enjoy the colors of the land, water, and sky. FODM Board Member Pat Salamone will lead the walk and Barry Sperling, FODM member and amateur meteorologist, will talk briefly about the current weather and clouds. We'll meet at the entrance to the Dyke Marsh Wildlife Preserve's Haul Road.

CLIMATE CHANGE (Continued from page 1)

The climate change presentation, open to the public, is cosponsored by two Northern Virginia Sierra Club Groups, Mount Vernon and Great Falls. It will be at the Huntley Meadows Park Visitor Center, 3701 Lockheed Blvd., Alexandria, VA 22306.

Friends of Dyke Marsh Board of Directors

President - Glenda Booth Vice President - Ned Stone	
Secretary - Dorothy McManus (Marsh Wren)	
Treasurer - Robert Smith	
Ed Eder (Past President)	
Kurt Gaskill (Field Trips)	
Bob Veltkamp (Membership)	
John Perry	
Mary Jo Detweiler (Archives)	
Pat Salamone	
Trudi Hahn	
Jessica Strother (Programs)	703-323-5278, strotherjessie@yahoo.com
Katherine Wychulis	

Advisory Board

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.

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

Copyright © 2014, The Friends of Dyke Marsh, Inc. All rights reserved.

Printed on recycled paper





President's Message Glenda C. Booth, President, Friends of Dyke Marsh

yke Marsh has been lush, green and full of life, human and non, these past few months, "the nearest thing to

primeval wilderness in the immediate vicinity of the city," as Louis Halle wrote in 1947.

FODMers who live near the western part of the wetland have had a particularly exciting time. "OMG! The beavers have a kit! I videoed them thru my scope," Laura Sebastianelli emailed this spring. Many River Towers' residents, with spectacular "aerial" views of western Dyke Marsh, were enchanted by the beaver family, nesting Canada geese, muskrats, bullfrogs, turtles and more.

Unfortunately, this part of Dyke Marsh is the "receptacle" for sediment-laden, stormwater runoff from the upper part of the watershed. FODMers have photographed brownish-yellow water flowing into the marsh from the west after many storms. They've also observed a decline in spring peepers. We met with officials from the county stormwater office, Fairfax County Park Authority and National Park Service and we are urging several remedies.

Speaking of storms, on June 18 around midnight, a severe storm ripped through Dyke Marsh, bringing down and splitting many trees. "The marina osprey nest weathered the storm fine and parents and both nestlings are still with us," reported Larry Cartwright the next day. Speaking of "our" ospreys, be sure to watch William Wright's amazing videos on our website and Facebook page.

Other highlights: the final restoration plan will be out soon; Board member Bob Veltkamp has designed a new FODM membership brochure; we are developing brochures describing what you might see in each season; we're upgrading our website to make it more user-friendly; we have a new bulletin board at the entrance to Haul Road; and the fall bird migration will be here soon! Avocets were spotted in the mudflats in late July.

In April, FODM and NPS again hosted students from T.C. Williams High School's International Academy, a group of enthusiastic, bilingual teenagers who helped plant native plants along the Haul Road (see photo above right). Here are excerpts from a few post-trip notes: "Thank you for teaching me about planting." "Thank you for teaching me how to dig a hole." "You made me learn new things like invasive species." "I was so happy to see a snake." It was a joy to host these youngsters.

Centennial Should Generate More Funds for Parks

NPS is gearing up for the 2016 centennial of the national parks system. NPS Director Jon Jarvis is urging friends' groups to raise funds for our national parks and in a June 9 speech said he is "talking to all comers about assistance – including a possible Congressional endowment, direct philanthropic contributions and partnerships with business." He added, "We have basically lived on appropriations, both in your state parks from state appropriations and federal agencies from general appropriations, and we have seen that go flat or in decline. So we have to create a new construct of how these places will be maintained in perpetuity."

Director Jarvis expressed the view that the National Park system may be irrelevant to the "Millennial Generation" and youngsters today. He hopes the



TCW students helped plant native species along the Haul Road. Photo by Glenda Booth.

Centennial can attract more young people to parks. "Our young people are immersed in technology and unfortunately have little interaction with the natural world" said Jarvis. To view Jarvis's talk on the internet, visit http:// new.livestream.com/usinterior/events/3059213.

Prescribing Nature

FODMers know that nature is good for our physical and mental health, but now some doctors are getting it and are "prescribing" nature. Doctors suggest that their patients spend time outdoors. Visit NaturePrescriptions.org, a website in partnership with the National Park Service, for information about maintaining your health with nature.

A Few Facts

Around 246,000 volunteers gave national parks 6.7 million hours in 2013. -- NPS Director Jon Jarvis, June 25, 2014.

"... an average of 35 birds a year are found dead along George Washington Memorial Parkway.... 80 percent of injured birds along the parkway are hit by vehicles." – Washington Post, July 12, 2014.



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

The Pumpkin Ash: A Unique Tree in Dyke Marsh

BY JESSICA STROTHER

Our metropolitan area is the far northern range for a number of species of flora, making the region unique for a number of native species. One of these is the pumpkin ash tree, *Fraxinus profunda*, found in the Dyke Marsh Wildlife Preserve. Also known as red ash, this species is found adjacent to and within swamps and river bottoms in the southern portions of the Atlantic coastal plain, stretching to northern Florida. In northern Virginia, this ash is found southward along the Potomac River in Fairfax County, with a few pockets stretching into Stafford County.

Local botanists documented pumpkin ash in 1904 in Alexandria, presumably at or near Dyke Marsh, and in 1933 in Prince Georges County, Maryland, at the mouth of Oxon Creek.

The tree derives its name from the swollen or pumpkinshaped swelling at the tree trunk base, more noticeable with older trees. A long-lived and healthy tree can reach a diameter of up to 30-plus inches in our area, and in Dyke Marsh, most are up to 15 inches in diameter.

One of this tree's relatives in the same genus is the green ash, *Fraxinus pennsylvanicus*. Both can be found growing near each other in Dyke Marsh. The pumpkin ash's seed or samara and seed embryo are larger than that of the green ash. Birds and many moth and butterfly caterpillars feed on the seeds and flowers.

Pumpkin, white and green ash trees are significantly threatened by infestations of the Asian insect, the emerald ash borer (EAB), *Agrilus plannipesas*, in our region. Arborists and foresters are tracking the movement of this species of borer eastward from the Midwest into northern Virginia and they confirmed an infestation in Fairfax County in 2008. Treatment for EAB consists of injecting an effective pesticide known as imadicloprid into individual healthy



The pumpkin ash's winged seed or samara is eaten by birds. Photo by flickr / Creative Commons / Blizno.

trees. Michigan has lost tens of millions of ash trees to EAB, mostly in urban and suburban settings, in the past 15 years.

Sadly, the future of ash trees in the eastern U.S. is not promising because of the emerald ash borer; however, some experts are trying to conserve the genetic makeup and germplasm of these species. Several U.S. Department of Agriculture agencies including the U.S. Forest Service's National Tree Seed Lab near Macon, Georgia, are accepting ash seeds for cold storage. Most of the ash seeds at this lab are from green ash collected in Michigan. Currently, there are very few pumpkin ash seeds in cold storage. Planting of all the *Fraxinus* species seeds is on hold until science finds a pathogen or another insect to eradicate the EAB. The next issue of *The Marsh Wren* will include suggestions on how the public can help the Park Service in dealing with the emerald ash borer at Dyke Marsh.

Dyke Marsh, the "Racetrack Flyway"?

In June, FODMer Mike Pollack spotted a pigeon wearing a leg band bearing numbers. Around the same time, a Mount Vernon area resident near Dyke Marsh was visited by a banded pigeon in her front yard for 40 minutes.

It turns out that the I-95-Mount Vernon area is a major flyway for racing pigeons, according to Joe Causey, with the Northern Virginia Pigeon Club. Often on weekends, members drive their pigeons down I-95 to a release point and the birds race 100, 200 and 300 miles north. Some get lost or stop to rest, but usually, "They'll beat you home," he said. Clubs using the I-95 route are based in Northern Virginia; College Park and Baltimore, Maryland; and Philadelphia, for example.

There are 8,000 people in 500 clubs in the United States, pigeon-racing enthusiasts who are members of the American Racing Pigeon Union (ARPU). There are about ten clubs in Virginia, including one Northern Virginia club with about eight members.

An ARPU staffer, Betty Logan, explained that racing pigeons are homing pigeons, birds with an instinct to return to their home loft. (A loft is a house or coop specially designed for pigeons.) ARPU can help identify a pigeon's owners if given all the information on the band



A racing pigeon with a numbered leg band. Photo: Amy O'Donnell.

Many people who race pigeons see it as a wholesome sport. Others allege that pigeon racers abuse and even kill some birds and maintain that pigeon racing is a form of gambling.

Meet the Plants of Dyke Marsh: Smooth Sumac

BY PATRICIA P. SALAMONE

Smooth sumac (*Rhus glabra*) is a deciduous large shrub to small tree that is native to the eastern United States. It is in the *Anacardiaceae* family, which also includes cashews and mangoes (as well as poison ivy, poison sumac, and poison oak).

It has compound, pinnate (feather-like) leaves which can be up to 24 inches long and have as many as 27 leaflets. The leaflets, 2 to 5 inches long, are lance-shaped with finely toothed edges. The leaves are odd-pinnate, meaning that they have a single terminal leaflet rather than a terminal pair of leaflets. The fall foliage is a brilliant red.

The small greenish-yellow flowers are borne in terminal cone-shaped panicles bloom in midsummer (June-July).



Smooth sumac has large clusters of fruit. Photo by Glenda Booth.

The fruits mature in late summer. The large clusters of small round bright red fruits (actually drupes) grow at the tips of the branches. Each cluster of drupes may contain hundreds of seeds. The sumac fruits persist well into the winter, turning a rusty shade, and are a winter food source for many animals, including songbirds, deer, and rabbits. The fruits have also been used by humans for many purposes, including making a lemonade-like drink (Euell Gibbons called it "rhus-ade") from the berries.

Staghorn sumac (*Rhus typhina* or *Rhus hirta*) is very similar to smooth sumac. The main way to distinguish between the two plants



Compound leaves of smooth sumac can have 27 leaflets. Photo by Glenda Booth.

is that the branches and leaf stalks of staghorn sumac are covered with velvety reddish-brown hairs; smooth sumac lacks these hairs. To complicate things further, the two species can cross naturally, resulting in hybrids that have characteristics of both parents. In any case, either of these sumacs is a valuable native plant with beautiful fall color as well as winter interest.

Reference: Euell Gibbons, Stalking the Wild Asparagus.

What Is Happening to Monarch Butterflies?

BY LARRY J. BRINDZA

Monarchs (*Danaus plexippus*), which weigh one-fifth the weight of a penny, have one of the most extraordinary migrations on the planet. Some fly up to 2,000 miles from Canada to Mexico. Millions cluster on oyamel fir trees at 9,000 to 11,000 feet every winter.

Have you been wondering why you haven't seen many monarchs in recent years? For the past decade, there has been a downward decline of the monarch population. During the winter of 2012, the area of forest in Mexico's transvolcanic mountains covered with monarchs was only three acres compared with the 17-acre average.

The Midwestern states are the main breeding grounds for the monarchs as they cycle through three to five generations during the breeding season. This is significant since monarch larvae feed only on milkweed plants. In the Midwest, milkweed habitat has been severely reduced by current agricultural practices:

• Milkweed is being eliminated from corn and soybean croplands by an ever- increasing use of geneticallymodified, herbicide tolerant crops. Corn and soy crops are now glyphosphate (Roundup) tolerant!

■ More acreage is being converted from rangelands and grasslands to croplands because of the increased de-

mand for biofuels.

■ Higher corn prices (because of the demand) push more land into production. This intense kind of agriculture also reduces field margins where milkweed historically has grown.

Dr. Orley Taylor of



Larry gently holds a Monarch butterfly. Photo: Glenda Booth.

the University of Kansas, land development takes away 6,000 acres a day and 2.2 million acres a year.

Deforestation caused by illegal logging in the monarch's winter habitat still threatens the delicate microclimate of the Mexican oyamel fir tree forests.

We can help. We can --

According to

■ plant milkweed to create host plants;

■support Monarch Watch, http:// www.monarchwatch.org/; and

■create monarch waystations, http:// www.monarchwatch.org/waystations/.

In May 2013, Larry Brindza gave FODM members a presentation on the monarch butterfly.

Profile of a National Park Service Official - Donna Cuttone

This is one of a series of profiles that FODM will publish introducing readers to some of the U. S. National Park Service officials with whom we work.

Donna Cuttone has been the Supervisory Park Ranger at Arlington House, the Robert E. Lee Memorial the last four years, and she is currently "delighted" to be the Acting South District Manager for visitor services on the George Washington Memorial Parkway.

In 1990, she resigned from her professional corporate position and took a three month volunteer position at Hawai'i Volcanoes National Park; she never looked back. She chose to stay "seasonal" with the NPS for a while in order to experience and become immersed in the best our country has to offer (Hawai'i Volcanoes, Denali, the Everglades, Sequoia-King's Canyon, and Glacier National Park.) She notes, "These were among the best experiences of my life: I traversed glaciers, crossed braided rivers, climbed mountains, kayaked rivers, tromped in swamps, and watched magma cool into lava."

Her permanent career in Visitor Services took her from Olympic National Park in Washington state (Supervisory Park Ranger) to Virginia's Shenandoah National Park, back to Hawai'i as Chief of Interpretation, Education and Outreach at Pu'uhonua o Honaunau National Historical Park and Kaloko-Honokohau National Historical Park.

Her path to us at the GWMP had earbeginnings. ly "Every summer growing up my Dad took a month off and our family of six travelled across the in country our Oldsmobile station wagon and 18 foot trailer – the Holiday Rambler, visiting as many national parks as we could. Today we call these people 'parkies!' We overheated the engine on mountain tops, got the trailer stuck in a tunnel in Yosemite. watched bears feedin garbage ing



Ranger Donna Cuttone is currently stationed as a manager at GWMP. Photo courtesy of NPS.

dumps at Yellowstone, crossed the desert at night, and climbed the Washington Monument. These experiences connected me deeply to national parks."

FODM Urges Fairfax County to Stop Killing Caterpillars

other

urging

gram.

several

done

spraying

organizations

FODM and six

County to terminate

the fall cankerworm

"suppression" pro-

years beginning in

2000, the county has

spring, much of it in

In 2013, 2014 and

conservation

are

Fairfax

previous

helicopter

the

in



A Hooded warbler eats a fall cankerworm. Photo by Paula Sullivan.

the Mount Vernon area near Dyke Marsh. Fortunately, the National Park Service does not allow cankerworm spraying on their properties.

The insecticide used Bacillus thuringiensis var. kurstaki (Btk) not only kills the caterpillar of a native insect called the "fall cankerworm" (*Alsophila pometaria*), it kills all moth and butterfly caterpillars that are out at that time. The timing is also troubling. The county sprays at a time when many species of birds are breeding, raising young and some birds, especially warblers, are migrating through Northern Virginia. Caterpillars are an important food source for many birds and frogs, spiders, beetles and other animals. Also, the insecticide can "drift" to areas outside the target zone.

A conservation coalition, including FODM Board member Katherine Wychulis, has done extensive research and prepared a power point presentation that the coalition is giving to groups and members of the Board of Supervisors. Coalition participants are the Audubon Society of Northern Virginia, the Northern VA Bird Club, Friends of Huntley Meadows Park, Friends of Meadowood, Friends of Mason Neck St. Park and the North American Butterfly Association.

To learn more and to help, email Katherine at kewychulis@aol.com or Glenda Booth at gbooth123@aol.com.

What's In Dyke Marsh?

FODM is preparing four seasonal brochures to help visitors learn about the natural resources of Dyke Marsh, from ospreys to water snakes to wild rice. The summer brochure is completed, thanks to the contributions of many beautiful photographs by FODM members. And we are very grateful to the Dominion Foundation for support to print the brochures. Look for them soon at the new bulletin board on Haul Road (see bulletin board article on page 7) and at our meetings. If you can contribute pictures for the fall, winter or spring brochures, please contact Glenda Booth at gbooth123@aol.com.

New Bulletin Board and Bicycle Racks

The Haul Road entrance has new bicycle racks and a new triple-paneled bulletin board, thanks to Carson Cameron, his Boy Scout assistants and the National Park Service. Installing the bulletin board is Carson's Eagle Scout pro-



Boy Scouts install a new bulletin board . Photo by Ned Stone.

ject. A small army of scouts and dads showed up Saturday morning August 9 and maintained a large and steady effort into the mid-afternoon.

Carson, age 17, is a rising senior at St. Stephens and Saint Agnes School and lives near Dyke Marsh. He has been a Boy Scout and member of Troop 1509 since he was 13. He emailed, "I wanted to do this project as many people in an industrial nation lose track of nature. Dyke Marsh has been shrinking so I wanted to help revitalize the park a little bit to attract attention to this issue."

Thank you, Carson, all the Boy Scouts and dads and everyone from the National Park Service!

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.

Welcome New FODM Members

We welcome our new Life Member Ms. Nancy Vehrs and new **Regular Members**: Jose Aguto, Marc Bosch, Kathy Burba, Mr. Scott John Cameron, Donna Cuttone, Ralph Espach, Barbara C. Jacobs, Ms. Jeannine R. Kausch, Elizabeth Killebrew, Catherine M. Mackenzie, Patricia A. McCarthy, Blaise deFranceaux & Sandi Poole, Angela and Stelios Scarlis, Janet S. Strahan, Sandra Welch, and William Young.

And a special thanks to Regular Member Jennifer Santley, who has now become an **FODM Life Member**.

Volunteers Attack Invasive Plants

Thirty volunteers participated in a training on May 16 on how to attack invasive plants along the George Washington Memorial Parkway, sponsored by FODM and the National Park Service (NPS). NPS Biologist Erik Oberg explained that many invasive plants out-compete



Invasive plants are removed. Photo: Ned Stone.

natives and form monocultures, thus reducing biodiversity. He said that NPS has to prioritize and perform a "triage operation" along the parkway, given the abundance and widespread distribution of non-natives.

The target invasive plants are garlic mustard, amur or bush honeysuckle, multiflora rose, wineberry, English ivy, Japanese honeysuckle and Oriental bittersweet. To help, contact Erik at erik_oberg@nps.gov or Ned at nedstone@cox.net.

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

FODM Membership - Dues and Contributions

Support the Friends of Dyke Marsh by becoming a member or renewing your membership. Benefits include the Friends' 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. 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 "New Member" or "Renewal" 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. Renewal reminders will no longer be sent with The Marsh Wren. 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 CON	TRIBUTION	\$
TOTAL AMOUNT I	ENCLOSED	\$
NAME		
ADDRESS		
CITY	STATE	ZIP
TELEPHONE NUM	BER	<u> </u>
EMAIL ADDRESS		
Please address any c	questions or comm	ents about Th
Marsh Wren to Doro	thy McManus and	about member
ship to Bob Veltkam	p. You may contac	t them by ma
at FODM, P.O. Box	7183, Alexandria,	Virginia 2230
-7183, by telephone		e

Mystery Snails - Help Solve the Mystery

Through the end of September, you can help Michelle Ryan, a George Mason University Ph.D. student, answer some questions about those olive to dark brown snails all along the Potomac River shoreline. The "Mystery Snails," *Bellamya chinensis* and *Bellamya japonica*, are two nonnative snail species from the *viviparidae* family found in North America and known to be along the Potomac since the 1960s. The snails, native to East Asia's wetlands and rice paddies, were brought to the United States in the 1890s for food. Over time, they were used in ornamental water gardens and indoor aquariums because they are very efficient surface algae grazers. Some made it into waterways, intentionally and unintentionally released, and they were once sold in pet stores.

Ryan is trying to answer two questions: (1) Is there a correlation between their location and water quality? (2) Are they one or two species? (Are there internal anatomical differences?)

The snails have a "trap door" or operculum they can clamp shut and they can survive out of water for up to a month. One female can produce up to 150 offspring in one season. "Last year was a banner year," Ryan said recently. "They were everywhere, carpeting the shoreline." She does not know what influences their numbers, what impact they are having on the environment nor their predators, but she



Volunteers are locating, counting and measuring mystery snails as part of the study. Photo by Glenda Booth.

has seen herons and egrets pecking on the shells. Once the water temperature reaches around 55 degrees Fahrenheit, the snails over-winter in the river bottom.

After a brief training, volunteers count the numbers and record a few measurements. You can go out on your own, on your own schedule (but DO NOT COLLECT the snails or their shells; you would need a permit from NPS). To help survey snails, contact Ms. Ryan at jryan10@gmu.edu.



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