Developing a Local Community Recreational Space:
Jug Bay Wetlands Sanctuary, Nature Preserve at Waysons Corner

By Patricia Delgado, Jug Bay Wetlands Sanctuary Superintendent

Jug Bay Wetlands Sanctuary’s Nature Preserve at Waysons Corner is a beautiful 30-acre parcel of land located near the town of Waysons Corner at the intersection of Sands Road and Old Southern Maryland Boulevard (Figure 1). This property was purchased in April 2008 as a result of the interest and efforts of local community members who wanted this land to be protected. Big-box retailer Target was considering purchasing this parcel to build a store, but the Lothian Civic Association, concerned with these plans, organized the community and, joined by the Friends of Jug Bay, fought against these development plans. Ultimately, the community won the battle, and the property was purchased by Anne Arundel County. Thanks to this effort, the parcel remains forested and continues to provide wildlife habitat and protect a corridor of Galloway Creek.

Figure 1. Diagram showing the location and layout of the main components of the local nature community recreational area at the Jug Bay Nature Preserve at Waysons Corner. The large loop (red line) is about 0.83 miles, and the path across (blue line) is about 0.13 miles. The “P” symbols stand for the parking areas and entrances to the Preserve. The other two symbols indicate the location of the picnic and children’s discovery areas.

What stories does the land tell? Some are hundreds of years old!

The northern portion of the parcel is covered by a young forest with occasional heavy undergrowth and mixed coniferous and hardwood trees. There is also evidence of a twentieth-century dwelling in the northeast corner where a portion of a cinder block foundation has

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been noted. Unfortunately, considerable trash has also found its way into this area, along with non-native vegetation like yucca. The southern portion of the parcel is quite different, as it is covered with older hardwood forest with little undergrowth (Figure 2). Galloway Creek, a tributary of the Patuxent River, also runs through the southern tip of the parcel.

Because of its potential archaeological value (suggested by GIS models), in September 2012, county archaeologists and volunteers visited this property, conducted a walkover, and dug nine shovel test pits, the latter within the Galloway Creek floodplain and the bluff overlooking it. Three of the test pits were positive and showed several prehistoric artifacts including pieces of quartz and a possible tool made of gabbro (rock chemically equivalent to basalt). In a report written by Sperling et al. (2013) presenting results from this visit, archaeologists suggest that areas such as this one at Waysons Corner would have been utilized for hunting or gathering, and its location along Galloway Creek, which was likely navigable during prehistory, would have made the site highly accessible. This information provides important background data to support the continued protection of this site, especially the area around Galloway Creek.

In an effort to make the Nature Preserve at Waysons Corner available for public appreciation and recreation, the Sanctuary is currently developing this property into a low-impact local community recreational space. On the basis of input from a public survey and discussions with local community members, it was decided that the project would focus its efforts in building four main features at the Preserve: 1) a hiking/running trail, 2) a picnic area, 3) a children’s discovery area, and 4) two public parking areas. A diagram showing the approximate extent and location of each of these components is shown in Figure 1.

What have we accomplished so far? A great deal!

For the hiking/running trail, we envision a loop of about one mile following the edges of the property, with the north section winding through the thicker vegetation. A shorter path would cut the large loop around the middle, providing access to the picnic area and the children’s discovery site from the two public parking areas.

On July 9th of this year, during the Waysons Corner Groundbreaking Day event, we hosted 14 volunteers who worked tirelessly from 9:00 am to 1:00 pm clearing the northern section of the trail and doing a major trash cleanup within the property (Figure 3, p. 11). The event was a complete success, and it was the initial on-the-ground effort for Jug Bay staff, Friends of Jug Bay volunteers, and local community members to move this project forward!

In addition, thanks to the support of the County’s Department of Recreation and Parks Southern Maintenance crew, one of the public parking areas to access the Preserve by the Sands Road entrance is now completed.

What is left? Plenty of volunteer opportunities!

We had a great start setting up and clearing the trail, but there is still work to be done to complete this task, which will then be followed by the blazing of the trail. We will share upcoming opportunities to participate in these activities with our volunteer and local community!

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Dear Friends,

In this column I have often mentioned those qualities that make Jug Bay Wetlands Sanctuary special: its beauty, its programs, and especially its importance to the ecosystems of Anne Arundel County. None of this would happen without the commitment of people. There is a long list of people who have “made it happen,” and without them it would be hard to imagine what would exist in its place. Without the staff, we would not have innovative programs to educate and entice citizens to be aware of the critical role that undisturbed wetlands play. Without volunteers donating thousands of hours, trails would not be maintained, citizen research would not be performed, and plain old mundane tasks would not be accomplished. Without the support of organizations like the Chesapeake Bay National Estuarine Research Reserve and the Friends of Jug Bay, there would not be that extra financial and material support to undergird those unique programs that we all enjoy. However, there is a very special group of people who often go unmentioned. They are the local citizens.

The local citizens, the Sanctuary’s neighbors, were the organizing force to preserve Anne Arundel’s side of Jug Bay and to join with the Patuxent River Park in Prince George’s County and the Department of Natural Resources (DNR) Merkle Wildlife Sanctuary (Note: Merkle is the only Wildlife Sanctuary operated by DNR). Their properties, combined with several DNR Wildlife Management Areas, now constitute several thousand acres and form one of the largest protected watersheds in the state.

For more than four decades, citizens have fought and prevailed over some of the most serious threats of development in Anne Arundel County’s Jug Bay’s watershed. These threats ranged from the original recreational vehicle campground, to a gravel mine, a shopping center, a private school, and the Renaissance Festival. In each of these cases, the development was curtailed, and often the land was purchased for the benefit of the Sanctuary.

Among the neighbors of the Sanctuary, there is a subset who have taken further steps to preserve their land in its current state in perpetuity. Almost all of the eastern boundary of the Sanctuary is protected by either agricultural or forest conservation easements. These neighbors have forgone the lure of development and have made the financial and personal commitment to place restrictions on further subdivision development of their property. Most of these properties are larger than 50 acres in order to qualify for Anne Arundel’s preservation programs. Some smaller acreages have also been preserved by other local or statewide land trusts.

On Thursday, September 7, 2017, String of Pearls will recognize Anne Arundel County, Maryland, for its efforts in preserving land around Jug Bay. It will designate Jug Bay Preserve, Glendening Preserve, and other adjacent properties in South County along the Patuxent River as “pearls.” In addition, six private landowners will also be honored for entering into conservation easements to preserve their lands through perpetual agricultural or forest conservation easements, which are held by Anne Arundel County. The highlight of the ceremony will be the signing of the Register of Pearls. It creates a legacy for those who make the commitment to land preservation. The Register is kept on permanent display in the Anne Arundel County Circuit Courthouse in Annapolis.

The String of Pearls is an interstate nonprofit that “honors those who protect land forever.” It works with government organizations, land trusts, and any legally chartered organizations that can hold and maintain conservation easements. These organizations work with individual landholders to either purchase or accept donations of land to hold in trust. Landowners enter into conservation easements, which restrict their land from further development, thus creating a pearl. These conservation easements are then recorded on the property’s deed. As a consequence these restrictions stay with the land regardless of future transfers of ownership. These pearls will then remain forever in their current natural state.

The String of Pearls concept is to “have pearls everywhere in the watershed. Enough pearls, with connecting “strings” or natural corridors for wildlife, to hold the landscape together.” It calls the public’s attention to the need to promote biodiversity through connected greenways. The seven easements on Jug Bay’s eastern boundary are held by Anne Arundel County. However, other Jug Bay neighbors have entered into conservation agreements with other land trusts, who have been honored previously.

We owe a huge debt of gratitude to our neighbors who have steadfastly supported the land preservation concepts that have resulted in one of the most valuable and beautiful natural areas near a major metropolitan area in Maryland.

Al Tucker, President, Friends of Jug Bay
**String of Pearls:**

Celebrating Land Conservation in the Patuxent River Watershed

By Patricia Delgado, *Jug Bay Wetlands Sanctuary Superintendent*

*String of Pearls* is a conservation organization that honors individuals and organizations who preserve land forever in the Chesapeake Bay Watershed. Its main goal is to designate “pearls,” in the form of conservation easements within the Bay watershed, with connecting “strings” or natural corridors for wildlife and biodiversity that help to hold the landscape together.

We are excited to announce that on Thursday, September 7, 2017, *String of Pearls* will honor Anne Arundel County and its excellent rural lands easement program by designating as “pearls” Jug Bay Wetlands Sanctuary properties along the Patuxent River. In addition, six local private landowners will also be honored for preserving their farms through the County’s Agricultural and Woodland Preservation Program and other programs.

The event will start at 2 pm at the McCann Wetlands Center and is open to the public. The ceremony, which will be officiated by State Senator Ed Reilly and Dick Lahn, Director of *String of Pearls*, includes the signing of the Register of Pearls and will be followed by a reception with music and refreshments. An integral part of this event is art—renowned painters from the region will create plein air paintings of the properties and then have the paintings on view and for sale during the celebration.

Please join *String of Pearls*, Anne Arundel County, and Jug Bay Wetlands Sanctuary in celebrating land conservation in the Patuxent River watershed!

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**An Over-Elm-Ing Thank You to our Volunteer Naturalists**

By Liana Vitali, *Jug Bay Wetlands Sanctuary Education Coordinator*

How can you possibly say thank you to a group of dedicated people who donate hundreds of hours of their free time to lead meaningful and engaging education programs at Jug Bay? A hearty potluck with a dose of recognition is a good place to start! On July 26, Jug Bay Wetlands Sanctuary staff invited our team of Volunteer Naturalists to an appreciation event to share some of our favorite moments of the past year along with our gratitude for their continued involvement and dedication to Jug Bay. Each Volunteer Naturalist was presented with a framed tree leaf print made by Jug Bay staff. Trees were selected for the individual Volunteer Naturalist who best captured the tree’s spirit.

Jug Bay’s Volunteer Naturalists lead formal and informal education field trips at the Sanctuary in the spring, summer, and fall. All Volunteer Naturalists enjoy waived entrance fees, access to education materials and resources, and a small budget to support continuing education opportunities such as conference or workshop fees. Most Volunteer Naturalists lead three to four field trips a season and are also welcome to join our Canoe Guide team to lead river-based programs during the summer months.

**Would you like to join the Volunteer Naturalist team at Jug Bay Wetlands Sanctuary?**

Email Liana Vitali, Education Coordinator, at rpvita23@aacounty.org today!

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Above: Volunteer Naturalists with their tree leaf prints at our July appreciation event. Photo by Pati Delgado.

View of the Patuxent from the observation deck at the Wetlands Center. Photo by Dominick Iascone.
Field Trips Adopt Next Generation Science Standards to Help Bring More Students to the Sanctuary

By Emily Cope, Jug Bay Wetlands Sanctuary Naturalist and Outreach Coordinator

Eighteen states, including Maryland and the District of Columbia, have adopted the Next Generation Science Standards (NGSS) to guide their science curricula. The standards highlight design and engineering with an emphasis on real-world skills. The education team at Jug Bay has received feedback from teachers, specifically public school teachers, requesting that we incorporate these standards into our field trips. When teachers can demonstrate that a field trip supports NGSS, it is easier for them to schedule time and receive funding for it—in fact, whether or not a field trip is aligned with NGSS can determine whether students will visit Jug Bay or not.

As it turns out, there is a natural partnership between NGSS and environmental education since several of NGSS’s core ideas emphasize environmental issues such as sustainability, human impact, ecosystem dynamics, and biodiversity. The benefit of the partnership is that the same concepts taught in the classroom are reinforced by field trips.

Take as an example the Stream Ecology module that Jug Bay offers to high school groups. In this lesson, students conduct biological stream surveys using nets to sample macroinvertebrates from stream banks and field guides to identify the organisms they find. After collecting their data, the students use the animals’ life histories to analyze their findings, determine the health of the stream environment, and consider what environmental factors could impact the health of the stream. This already aligns well with an NGSS standard that emphasizes an understanding of causal relationships between environmental changes and their impacts on different species (HS-LS4-5, for those of you keeping track at home!). This is just one example of how hands-on, muddy-boots, outdoor education can enhance a curriculum being taught in the classroom.

This past spring, 873 students (over half of which were from public schools) visited Jug Bay on a field trip. Our goal at Jug Bay is to offer educational opportunities to all kinds of learners from all educational backgrounds. Now that our field trip offerings are up to date with current science standards, we hope that it will be easier for educators, specifically those in public school settings, to blend outdoor education opportunities at Jug Bay into their school year.

Sanctuary Box Turtle Study in Its 24th Year

By Mike Quinlan

The Eastern Box Turtle Habitat and Population Study is one of the Sanctuary’s longest continuous research projects. The data collected enables us to understand population size and structure, territories and home ranges, and movement patterns of the turtles in a way that is only possible through long-term observation. Since the first turtle, in September 1994, we have marked a total of 593 turtles, with over 7,000 records gained through a combination of casual encounters, dedicated searches, and radiotelemetry.

This year we decided to make a concerted effort during the 2017 and 2018 field seasons to update our knowledge by maximizing encounters to gain a “snapshot in time” of the population. Thanks to the efforts of staff, visitors, and dedicated volunteers, we have made a good start. We welcome reports of sightings from anyone. Simple instructions on what and how to report are available at the Sanctuary office. Watch for a summary of this season’s results in the upcoming winter 2018 issue of Marsh Notes.

Students on a field trip exploring the Marsh Boardwalk at Jug Bay. Photo by Emily Ferguson Cope.

A male Box Turtle surveys his world. Photo by Mike Quinlan.
PUBLIC PROGRAMS AT JUG BAY

Open Hours:
Sanctuary Wetlands Center: Wednesdays, Fridays, Saturdays, and Sundays 9:00 am - 5:00 pm
Glendenning Nature Preserve: Wrighton Road entrance daily, gate open 9:00 am - 5:00 pm; Plummer House entrance Monday to Saturday, gate open 9:00 am - 5:00 pm (trails, Butterfly Garden, dogs on leash)
Patuxent Wetland Park: daily, dawn to dusk (fishing, hand-carried boat launch)
Wootons Landing Wetland Park: daily, dawn to dusk (fishing, loop trail, hand-carried boat launch)
Sanctuary Wetlands Center admission fee: $6/vehicle
Free for current Friends of Jug Bay members, active volunteers, and active military and their immediate families.
There are no fees to visit our other sites.
Visit www.jugbay.org for directions, information and updates to our schedule.
Registration is required for all programs. Please call 410-741-9330 or e-mail programs@jugbay.org to register, or, in the case of ActiveNet programs, register online at https://apm.activecommunities.com/aarecparks. All programs meet at the Wetlands Center at 1361 Wrighton Road unless otherwise noted. An adult must accompany children under 13.

Guided Bird Walks
First Saturday of every month, 8:00 am - 11:00 am
Ages: 12 and older
Fee: $6/vehicle entrance fee
Learn the skills of identifying birds by sight and sound. Binoculars and field guides are available to borrow. Wear comfortable walking shoes and dress for the weather. Registration required: Call 410-741-9330 or e-mail programs@jugbay.org. If e-mailing, please include program name, participant name(s) and whether adults or children, and contact phone number.

Marsh Ecology by Canoe
Saturday, September 2 and Saturday, September 16, 10:00 am - 2:00 pm
Ages: 7 and older
Fee: $20, vehicle entrance fee included (ActiveNet Activity #11441 (9/2) and #11442 (9/16))
Discover the abundant wildlife in the Patuxent River wetlands. We’ll paddle up some of the smaller branches of the river to look for beavers, birds, and flowering wetland plants. Please arrive 15 minutes before the start time. Bring plenty of water, sunscreen, sun hat, sunglasses, a lunch, and shoes that can get wet. Registration required through ActiveNet.

Jug Bay Eco Challenge Duathlon (Run-Paddle-Run)
Saturday, September 9, 7:00 am - 12:00 pm
Ages: 12 and older
Fee: $80/person, $100/relay team until September 7, 2017
Come and paddle part of the Patuxent River Water Trail and run two of Jug Bay’s beautiful wooded trails by joining the first Jug Bay Duathlon! Funds from the event will support leisure, outdoor education, and recreation programming for all Anne Arundel County citizens. Registration required through https://tinyurl.com/jugbayduathlon.

Bill Steiner Canoe Trip
Sunday, September 10, 3:00 pm - 7:00 pm
Ages: 21 and older
Fee: $35/person
The trip is in honor of Bill Steiner, long-time volunteer, canoe guide, and FOJB president. Paddlers will leave from the Sanctuary’s River Pier for an ecology trip on the Patuxent River. There will be a stop along the way at historic Mt. Calvert mansion for cheese and beverages and a nature-related presentation. Registration required: Call 410-741-9330 or e-mail programs@jugbay.org.

Waterbird Survey
Thursday, September 14, September 28, October 12, October 26, November 23; 7:30 am - 9:30 am
Ages: 12 and older
Fee: Free
Come and join a periodic survey of waterbirds at Jug Bay Wetlands Sanctuary. The ornithological knowledge and collaborative attitude of our volunteer team create a phenomenal learning experience. All of this in the beautiful early morning light of the Jug Bay wetlands on the Patuxent River. Registration required: Call 410-741-9330 or e-mail programs@jugbay.org.

Big Bad Fishing Tourney (Patuxent Wetland Park)
Saturday, September 16 and Saturday, October 14, 8:00 am - 5:00 pm
Ages: 4 and older
Fee: $10 entry fee
Help manage invasive fish populations on the Patuxent River. We’ll award $50 to the entrant who collects the most invasive fish by weight on this day—sizes of individual fish do not matter. Registration will begin at 7:30 am, and the winner will be announced at 5:30 pm. Fish must be chilled and will be collected when weighed for our Taste of the Wild event.

Marsh Ecology by Canoe
Saturday, September 16, 10:00 am - 2:00 pm
Ages: 7 and older
Fee: $20
Discover the abundant wildlife in the Patuxent River wetlands. We’ll paddle up some of the smaller branches of the river to look for beavers, birds, and flowering wetland plants. Please arrive 15 minutes before the start time. Bring plenty of water, sunscreen, sun hat, sunglasses, a lunch, and closed-toe shoes that can get wet. Registration required: Call 410-741-9330 or e-mail programs@jugbay.org.
Public Programs at Jug Bay

Fall Equinox Hike (Plummer House, Glendening Nature Preserve)
Saturday, September 23, 5:00 pm - 7:00 pm
Ages: 10 and older
Fee: Free
Join one of our volunteer naturalists for a hike through the Glendening Preserve to celebrate the arrival of fall. We'll look for signs of the changing season. Registration required: Call 410-741-9330 or e-mail programs@jugbay.org.

Taste of the Wild
Saturday, September 23, 6:00 pm - 9:00 pm
Ages: All
Fee: Before September 16th: cost per person is $60 for FOJB members, $70 for non-FOJB members. On or after September 16th: cost per person is $70 for FOJB members, $80 for non-FOJB members.
Taste of the Wild will feature a selection of small plates prepared with local and wild-foraged plants, vegetables, game, and fish. Music by the NiteOwls and local wines, including wine from the Jug Bay Farm vineyard, will accompany the "wild" fare. Menu will be set. No substitutes available. Limited vegetarian options.
Registration required: Call (410) 741-9330 for reservations and payment options.

Women on the Water
Saturday, September 30, 9:30 am - 3:30 pm
Ages: 21 and older
Fee: $30 for FOJB members, $35 for non-members
Tap into the serenity of Jug Bay Wetlands Sanctuary and our wetlands during a day just for women. The day will begin with a leisurely canoe trip where we will look for wildlife and wetland plants along the Patuxent and Western Branch. We will enjoy a gourmet lunch. The day will conclude with a guided relaxation session; bring a yoga mat or towel. Fee includes naturalist and ACA-certified canoe guides, all canoe equipment, guided relaxation session, gourmet lunch, and park admission. A hike/walk in the woods will be substituted if weather conditions do not allow for canoeing. Bring water, sunscreen, sun hat, sunglasses, closed-toe shoes that can get wet, and an extra set of dry clothes. No experience necessary. Prompt program start time. Registration required: Call 410-741-9330 or e-mail programs@jugbay.org.

Patuxent River Canoe Overnight
Saturday, October 7, 1:00 pm through Sunday, October 8, 1:00 pm
Ages: 18 and older
Fee: $45 per person
Join Jug Bay staff and volunteers for a night under the stars. We will canoe the Patuxent River and its tributaries, camp at a riverside campsite, cook dinner and s'mores on an open fire, and enjoy a relaxing night by the river. We will provide canoes, guides, personal flotation devices, paddles, hot dogs, buns, condiments, s'mores ingredients, and a light breakfast. You provide a side dish to accompany dinner, drinks, snacks, tent, sleeping bags, and any other personal items. Please also bring sunscreen, sunglasses, hat, closed-toed shoes that can get wet, and an extra set of dry clothes. Space is limited. Weather dependent. Registration required: Call 410-741-9330 to check availability, register and for payment options.

Introducing Bird Watching to the Young
Saturday, October 14, 8:00 am - 9:30 am
Ages: 12 to 16
Fee: Free
Join Jug Bay's Master Naturalist Mike Quinlan to discover the art of bird watching! We will walk the sanctuary trails and use binoculars to look for all kinds of birds in our wetland and forest habitats. Some binoculars will be available to borrow. No experience required. Registration required: Call 410-741-9330 or e-mail programs@jugbay.org.

Community Day on the Water (Patuxent Wetland Park)
Saturday, October 14, 10:00 am - 1:00 pm
Ages: All ages
Fee: Free
Join us for a fun day on the water at Patuxent Wetland Park! You will have the opportunity to try our kayaks and paddleboards, do some fishing, or help us clean up the area. Children must be 13 or older to use kayaks or paddleboards. Water and snacks provided.

Planting a Rain Garden
Sunday, October 8, 9:00 am - 2:00 pm
Ages: All
Fee: Free
We need volunteers to help us plant a rain garden at the Paw Paw Education Pavilion. The rain garden will capture water from the pavilion roof and serve as a stormwater management demonstration site. All plants will be native and will be purchased with funds from an Unity Garden grant. We will provide all the necessary tools and materials, but please dress appropriately for gardening. We will provide water and snacks throughout the day, but please bring a lunch if you plan to stay for the entire event.
Registration required: Visit the event on Jug Bay’s online volunteer calendar to register at http://jugbay.org/volunteer_calendar.

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Public Programs continued from page 7

Fall Foliage Canoe Trip
Saturday, October 21, 2:00 pm - 6:00 pm
Ages: 7 and older
Fee: $20, vehicle entrance fee included (ActiveNet Activity #11443)
The marsh is getting ready to go dormant for the year but is not finished yet! We’ll look for late-season flowers, migratory birds, and more. Bring plenty of water, sunscreen, a snack/dinner, and closed-toe shoes that can get wet. Registration required through ActiveNet.

Community Day on the Water (Wootons Landing)
Saturday, October 28, 10:00 am - 1:00 pm
Ages: All
Fee: Free
Join us for a fun day on the water at Wootons Landing! You will have the opportunity to try our kayaks and paddleboards, do some fishing, or help us clean up the area. Children must be 13 or older to use kayaks or paddleboards. Water and snacks provided.

Halloween Wagon Rides (Glendening Nature Preserve)
Saturday, October 29, 10:00 am - 12:00 pm
Ages: All
Fee: Free
Come and start the Halloween celebration with us! All families are invited to bring their children and catch a special wagon ride, which will take you through the beautiful area around the Glendening Nature Preserve. Registration required: Call 410-741-9330 or e-mail programs@jugbay.org.

Patuxent Wetland Park Clean Up
(Patuxent Wetland Park)
Saturday, November 4, 9:00 am - 1:00 pm
Ages: 7 and older
Fee: Free
Meet up at Patuxent Wetland Park, located under the highway Rt. 4 bridge at 1426 Mt. Zion Marlboro Rd, Lothian, MD 20711 to collect trash from our fishing and paddling site. We will provide gloves and bags, but please bring water, snacks, a hat, old clothes, and shoes. Registration required: link attached to each calendared event at http://jugbay.org/volunteer_calendar.

Volunteer Training Day
(Glendening Nature Preserve)
Saturday, November 11, 9:00 am - 11:00 am
Ages: 15 and older, but many opportunities are family friendly
Fee: Free
Come be part of the amazing volunteer team at Jug Bay Wetlands Sanctuary! Participants will learn about the volunteer, stewardship and citizen science opportunities here at Jug Bay. Training will be followed with a hike on our beautiful trails. Registration required: link attached to each calendared event at http://jugbay.org/volunteer_calendar.

2017 Jug Bay Post Turkey Trail 5K
(Glendening Nature Preserve)
Friday, November 25, 8:30 am - Race Day Registration and Packet Pick up; race will begin at 9:30 am
Ages: All
Fee: Youth registration (under 18), $20, adult registration (18 and older), $25
Join the Anne Arundel County Recreation and Parks Move More Race Series! Enjoy the beautiful, scenic trails of the Glendening Nature Preserve. The trail is all off road with some single track areas. All proceeds from the race go to Recreation Deeds for Special Needs, a local non-profit organization dedicated to making recreational activities accessible to all Anne Arundel County residents. For more information on this event please visit us on the web at www.aacounty.org/recparks keyword “Move More.”

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Welcome New FOJB Board Member Jillie Drutz

Jillie Drutz, the newest board member of the Friends of Jug Bay, was born and raised in Reisterstown, MD. She graduated from George Washington University in 2013 with a degree in biological anthropology. Through her various work and traveling experiences, she has formed a sincere love of natural history and a passion for making it accessible to everyone, and she is excited to continue doing so as an FOJB board member. Jillie currently works for Blue Water Baltimore, helping to create and sustain healthier environments and communities in Baltimore City. She loves all things outdoors and is especially keen on backpacking on the Appalachian Trail and exploring National Parks. Welcome, Jillie!

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Summer Volunteers at JBWS:

Blythe Alexander
Devi Atit
Maria Barañano
Tere Barañano
Martí Barrón
Mike Blackstone
Susan Blackstone
Cynthia Bravo
Lucas Burlack
Danny Bystrak
Karen Caruso
Alan Christian
Regan Christian
Brendan Clark
Gen Clark
Liam Clark
Paulina Clark
Sean Clark
Sylas Cox
Mike Cunningham
Aaron Curry
Dave Davis
Michelle DeTolla
Victoria DeTolla
Sean Doyle
Kim Elliot
Erin Engstrom
Kirsten Enzinger
Viandas Family
Lee Fisher
Sarah Flores
Eline Friebele
Michelle Gadd
Joyce Gillespie
Diane Goebes
Ernie Goins
Shawn Griffing
Chuck Hatcher
Nathan Hepp
Darcy Herman
Nicholas Iacaruso
Rose Jacobius
Christine, Chris, Molly and Emmett Kloss
Deborah Kostakos
Regina Kreger
Dave Larrabee
Eric Lind
Andrea Loudermilk
Cliff Loudermilk
Erica Loudermilk
Mary Lyons
Woody Martin
Kieran Mathis
Chuck McClain
Ginger Millhap
Karen Moe
Dave Mozurkewich
Manfred Muecke
Anne Muecke
Dotty Mumford
Lenore and Nate Naranjo
John Norris
Susan Nugent
James Oland
Casey Ottenwaelder
Matthew Payne
Siobhan Percy
Dave Perry
Bob Plunkett
Michael Quinlan
Dom Raino
Cynthia Reynolds
Gordon Reynolds
Jennifer Rooks
Doris Schmitz
Mary Kay Sintik
Joan Slettvet
David Smith
Bob Smith
Chris Taylor
Madeleine Toomey
Albert Tucker
Pete Uimonen
Sue Waddington
Robert Williams

Groups:
InterfaithYouth
Service Group
NOAA Summer Interns & Staff

During the summer, volunteers logged 2162 hours.
A contribution worth over $50,720!

Thank You!
Volunteers Help Pilot Mammal Monitoring Protocols at Sanctuary

By Melinda Fegler, Volunteer & Stewardship Coordinator

The summer of 2017 has been an exciting time for our volunteers. Last summer we developed a protocol for more in-depth mammal monitoring at the Sanctuary. During the spring and summer of 2017 we have been piloting and perfecting several of the projects recommended by Dr. Jenn Marrow and her students of the University of Maryland Biology Department. Specifically, 2017 research intern Chuck Hatcher, Matthew Payne, and a team of volunteers have undertaken deer spotlighting, otter and riverine mammal monitoring, coyote call monitoring, and small mammal monitoring.

One of the first projects we started in early spring was deer spotlighting. We initiated an intense deer population monitoring protocol with 2016 research intern Yasmine Hentati, also one of Dr. Marrow’s students. Spotlighting was part of Yasmine’s protocol piloted during her internship with JBWS. To continue her work, this program engages volunteers in a monthly nighttime protocol that begins an hour after sunset and seeks to determine grazing density along several transect lines. The data can then be used to calculate the density of deer in a given area. Thus far we have recruited 17 volunteers willing to ride in the back of a truck, use a high-grade spotlight to shine into the woods on either side of the transects, and spot the deer eyes reflecting the light. A bonus of this volunteer activity is the chance to see other mammals in addition to deer. On many nights we have spotted foraging skunks, prowling owls, elusive foxes, and comical raccoons.

In late spring we added coyote call monitoring on the same nights we spotlighted deer. For this protocol, we use a predator caller to play the yip-yawl calls of coyote through very amplified speakers. To our excitement, we did receive clear and definable calls back! Our DNR partners also confirmed that scat collected on the property was definitely from a coyote.

Intern Chuck Hatcher also piloted Jug Bay’s otter and riverine mammal monitoring. For this protocol, volunteers get to paddle on the river with their choice of a stand-up paddleboard (we have 3 in our fleet thanks to a Chesapeake Bay Trust grant) or a kayak (supplied through a grant from KEEN). The marsh is a whole new world after dark, and the most curious of critters are not always the humans. To our volunteers’ delight, we have seen many forest friends—and yes, even a few otters! It has been fun, and we will continue this exploration into the fall.

As the Volunteer Coordinator, the other project that I am very fond of is our small mammal monitoring. Not because of the amazing data, not because of the adorable footprints we obtain, but because of our young project lead Matthew Payne. At 16, Matthew has taken charge of the entire project, worked on the challenges, found solutions to problems, and come up with not only great data but a clean, workable protocol that fits the Sanctuary’s needs and volunteers’ abilities.

I thank all of the volunteers involved in these unique opportunities, and I invite more of you to join us. I hope that we can ooh and ahh you with our results once the year of data collection is complete.

Explore our volunteer opportunities online at http://www.jugbay.org/volunteer. For more information, call 410-741-9330 or e-mail Volunteer & Stewardship Coordinator Melinda Fegler at rpfegl00@aacounty.org.

Seeking Smiling Faces at Jug Bay

Do you love Jug Bay and want to share your enthusiasm with others? Would you like to surround yourself with the beauty of nature and meet new people, all from the comfort of a heated and air-conditioned office? We have the perfect volunteer opportunity for you. Join our wonderful group of Jug Bay office volunteers and enjoy greeting and orienting visitors, answering telephones, collecting entrance fees, and improving your knowledge of our natural world. We will pair you with a seasoned volunteer or the Office Manager for training. Most often we are seeking office coverage on Sundays, with occasional Saturdays and weekdays. Coverage can be a full day, 9:00 am to 5:00 pm, or half a day, 9:00 am to 1:00 pm or 1:00 pm to 5:00 pm. Please email Debra Gage at rpgage00@aacounty.org or call 410-741-9330 for more information.
For one week each August, twenty intrepid middle and high school teachers work with scientists, coastal educators, and resource managers to improve their understanding (and teaching) of estuary science. Through the Teachers on the Estuary: Data Edition (TOTE: Data Edition) teacher training, teachers become students, conducting field investigations, working in groups to organize questions about their changing environment, identifying appropriate monitoring tools to investigate their question, and presenting their issue and data analysis to the other teacher groups.

Maryland is in a unique position as a national leader in environmental literacy efforts in k-12 education, with a coalition of organizations partnering where possible in their commitment to seeing these efforts succeed. TOTE: Data Edition has introduced participants to the intense scientific study and rapidly changing dynamics of the nation’s largest estuary. Working intimately with the land and the coastal communities whose cultural history and identity are tied directly to the bay and assisting or shadowing scientists as they work to monitor for the health of the ecosystem, TOTE participants increase their capacity to develop rigorous, engaging, and impactful lessons.

What does a TOTE week look like? The course has teachers conducting field studies, setting commercial crab pots, examining rockfish for evidence of mycobacteriosis, visiting the oyster hatchery at Horne Point laboratories, and working alongside wildlife biologists who are monitoring breeding populations of Brown Pelicans and has had them exploring the isolated and uninhabited remnants of Holland’s Island, a once-thriving waterman community whose history faded with the gradual disappearance of the land to the engulfing bay. Teachers contemplate the
fate of the lost community (against the restoration and monitoring work being done regionally) in the context of current sea level rise projections, nuisance flooding, and extreme weather events that test the resiliency of coastal communities.

In recent years, teachers have spent an afternoon with the residents of Smith Island to learn how this 400-year-old community is preparing for their future as the Chesapeake continues to change and with science detecting increased rates of change. These connections drive home the delicate balance between the weight of scientific data and human values, of ecosystem services in informing the social science of stewardship activities, and how we can use what we know from science to protect what we love for the long term.

Course facilitators from CBF, NCBO, and CBNERR-MD infuse Next Generation Science Standards into the practice and familiarize participants with environmental, estuarine, and climate literacy standards; put national data platforms into the hands of teachers and their students to help them form a better understanding of their world; and train the teachers in the wealth of education resources available through NOAA, CBF, and the NERRs. Teachers are encouraged to strive to create Meaningful Watershed Educational Experiences for their students and act as mentors within the local education agencies that support their schools.

At the heart of the TOTE course is change: how is our environment changing? What is that rate of change? How are we monitoring for change? How are we a part of that change—either creating it or adapting to it? How do we move forward in our understanding of these changes to become “agents of change” within our school communities? By exploring these questions, teachers are also compelled to ignite a spirit of influence with their students and school communities through investigation-driven stewardship activities.

Are you a teacher or do you know a teacher who would benefit from the TOTE course? For more information about 2018 trainings, contact Coreen Weilminster, Education Coordinator, at coreen.weilminster@maryland.gov.

Waysons Corner, continued from page 2

We hope the picnic area will serve as a family space to share and enjoy the Preserve. We expect to set up this area by the end of October, and amenities will be located as shown in Figure 1. The biggest task left to accomplish is the design and creation of the children’s discovery area. This special area will be located near the picnic area to facilitate family interaction and enjoyment of the Preserve. Recommendations from community members and Sanctuary staff suggest a series of features for the children’s discovery area including:

- Music/sound exploration
- Wood stepping stones, balance beam, low rope bridge
- Wobble table
- Canoe dug in the ground
- Bird houses
- Bug hotel
- Small traditional Native American long house – if possible
- Tree stump sitting area looking out into the forest
- Signage indicating location of the Preserve within the larger surrounding area

The intention is to build these features with materials often found in nature. However, thanks to a generous donation from Colin and Valerie Rees and the Friends of Jug Bay, we also have additional funds to purchase materials needed to build some of the structures. We would also like to add informative kiosks at both entrances of the Preserve, interpretive trail signage, and benches to enhance visitors’ experience.

A recreation nature space for the community!

Our main goal in creating this nature recreational space is to provide a “backyard” space for members of the local communities around Waysons Corner that promotes personal health and appreciation and enjoyment of this natural area. We hope that this space will become part of the community and that invested members and local organized groups will help the Sanctuary take care of it by keeping it clean and functioning for everyone to enjoy.

Anyone with questions or suggestions or who is interested in becoming a steward of the Nature Preserve at Waysons Corner is welcome to contact us by calling Jug Bay Wetlands Sanctuary at 410-741-9330.

Expected Grand Opening: Spring 2018

Although we expect that the trail, picnic area, and public parking will be ready before the end of the year, we envision that by the spring of 2018—with your support—the remaining features, including the children’s discovery area, will be completed.
SAVE THE DATE!

Saturday, September 23, 2017 - 6 to 9 pm

Join us at the Sanctuary for music, wine, and great food!

Taste of the Wild will feature several small plates of local and wild-foraged plants, vegetables, game, and fish prepared by Jug Bay naturalists and volunteers. Music by the NiteOwls and local wines, including some from the Jug Bay Farm vineyard, will accompany the “wild” fare.

Taste of the Wild is the final major Friends of Jug Bay fundraising event of 2017. Funds raised from ticket sales will contribute to the purchase of research tools for the Sanctuary.