

We Our Volunteers:

A Review of the Volunteer Appreciation Social

Summary by Lindsay Hollister
Photos by Ernie Goins and
Chris Swarth



Our 20 year volunteers, between staff. Second from left: Ginger Chaney, Betty Chaney, and Marilyn Fogel.

Although our annual volunteer social was held on Superbowl Sunday (thank you football fans!) this pre-game party was not about football. With our volunteers we celebrated our annual Appreciation Social on February 1st at Quiet Waters Park in Annapolis. The weather was clear and warm and we welcomed about 80 guests to honor all that our volunteers have done for us. In summary, 2008 was a year of contrasts.

- Lost long-time Education Coordinator Karyn Molines to a promotion, but selected Elaine Friebele as new Education Coordinator from a field of 8 outstanding applicants
- Faced a hiring freeze and short-staffing for months, but hired new naturalists Susan Matthews & Gretchen Quast
- Wetlands Center damaged during a storm when half of our huge red oak smashed through the conference room, but completed work and dedicated the Plummer House
- Had illnesses and even death in our community of friends, but have volunteers healing as well
- Cut back on educational programs while short-staffed, but began re-evaluation process to improve the activities we do offer

Every single volunteer hour has been valuable to us, but we would especially like to thank some particularly dedicated volunteers who were able to step up and help us hobble through the summer while we were short-staffed.

- Karen Caruso for many days of office assistance
- Pete Uimonen & Kim Elliott for orchestrating our fall marbled salamander research

- Diane Goebes for leading extra programs
- Les Silva, Bruce Weidele and Mike Quinlan for extra maintenance assistance
- Jeff Campbell for offering leadership on several research projects
- Cynthia Bravo for upgrading our Exhibit Room informational binders
- Willey Persaud for maintenance around the Wetlands Center
- Dave Laughlin for updating our herbarium
- The Construction Crew - Mickey Taylor, Sandy Teliak, Les Silva, & Bob Williams for completing the renovations to Plummer's Corner

It is because our volunteers dug deep to assist us that we decided to have a Valentine's Day love theme for the social. Our volunteers demonstrated their love of the Sanctuary in 2008, so we wanted to show them how much we love all that they do. Using red and white streamers and hearts, we decorated the windows. Doilies, shiny heart centerpieces, and colorful little message candies were spread across the tables.

During the Social Hour we featured a rolling slide show of 2008 photos that Susan Matthews produced. For dinner we had lasagna and salad. Desserts disappeared quickly as folks grabbed a savory cookie or brownie.

Our Awards Ceremony began by welcoming a few special guests. Chris Swarth thanked Department Director Frank Marzucco and new Southern Parks Division Chief Chris Carroll for attending. Mr. Marzucco has been very supportive of the Sanctuary since taking the position in 2006. Also attending were Beth Ebersole and Sasha Land of the Chesapeake Bay

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Jug Bay Wetlands Sanctuary
 1361 Wrighton Road
 Lothian, MD 20711
 410-741-9330
 e-mail: info@jugbay.org

Jug Bay Home page:
www.jugbay.org

Jug Bay Wetlands Sanctuary is operated by the Anne Arundel County Department of Recreation and Parks. It was established in 1985 with the goals of wetlands research and environmental education. The Sanctuary is a limited-use park. Visitors are requested to make a reservation by calling the office before planning a visit.

Jug Bay Wetlands Sanctuary is a member of the Chesapeake Bay - National Estuarine Research Reserve Maryland system, which promotes scientific research, public education, resource management and stewardship in estuarine reserves across the nation.

STAFF

Christopher Swarth, Sanctuary Director
 Elaine Friebele, Naturalist
 Lindsay Hollister, Naturalist
 Susan Matthews, Naturalist
 Gretchen Quast, Naturalist
 Jean Manganello, Office Manager
 John Evans, Maintenance
 Richard Chaney, Maintenance Assistance

FRIENDS OF JUG BAY OFFICERS:

Al Tucker, President
 Sandy Barnett, Vice President
 Susan Nugent, Secretary
 Mike Quinlan, Treasurer

BOARD OF DIRECTORS:

Sandy Barnett, Kathy Chow, David Davis,
 Jim Harle, Dotty Mumford, Susan Nugent,
 Gordon Reynolds

Marsh Notes is produced quarterly by Jug Bay Wetlands Sanctuary. Comments and suggestions are welcome.

Editor: Lindsay Hollister
 Graphic Design: Liz Fisher, Graftix Galore in Easton, MD, 410-822-6305

This newsletter is printed on recycled paper.



Ten year volunteer Rosemary Frezza (center). Not pictured: Ami Hazell



Chris Swarth with Parks Director Frank Marzucco (center) and Southern Parks Chief Chris Carroll (left).



Five year volunteers, from left: Ben Hollister, Dave Davis, Cynthia Bravo, Gordon Reynolds and Bob Smith. Not pictured are Peggy Brooks, Antonio Cordero, Elizabeth Kurgansky, Dave Mozurkewich, Sandy Teliak, and Al Tucker.

Below: Our 2008 Mudmucker class, donating 3 years and 100 hours of volunteer service. From left: Diane Goebes, Sandy Barnett, and Jeff Campbell. Not pictured, Yuka Tasumi.



Above: First year volunteers attending, from left: Susan Matthews, Emily Evans, Sara Van Scheik, Karen Caruso, Colin Barnett, Ernie Goins, Harry Coulombe, Dave Larabee, Anne Muecke, and Manfred Muecke.



Continued from page 1

National Estuarine Research Reserve. Beth, as the Reserve Manager, graciously thanked our volunteers and emphasized that in her experience she has never seen a volunteer group anywhere near the caliber of ours.

Following up on Beth's kind words, Elaine Friebele and I began announcing our milestone volunteers to receive their certificate and gift. We celebrate first year volunteers and every five years after that they are still active with us. Pictured are the milestone volunteers that could be with us. We also have a special award for Mudmuckers, volunteers who have devoted 100 or more hours over at least three years. Thank you everyone for making our volunteer program one of the most successful in the region!



Dear Friends,

Recently the Sanctuary staff, the Scientific Advisory board and the members of the Friends Board of Directors met to discuss future directions for the Sanctuary. Coincidentally, the EPA released its report entitled, [Coastal Sensitivity to Sea Level Rise: A Focus on the Mid-Atlantic Region](http://www.climatechange.gov/Library/sap/sap4-1/default.php)¹; this report presents differing scenarios of the future of coastal ecosystems in the region. Jug Bay is included in the category tidal freshwater wetlands. The report contains both good and bad implications for Jug Bay, but more on that topic later.

Recent land acquisitions have expanded Sanctuary protection to include significant amounts of several local watersheds and streams that flow into Jug Bay and, hence, the Sanctuary now contains a major portion of a working ecosystem. The Sanctuary constitutes a part of the much larger Jug Bay wetlands ecosystem, and along with our partners at the Maryland National Capital Park and Planning Commission in Prince Georges, DNR Wildlife Management Areas, DNR Merkle Wildlife Sanctuary and the Chesapeake Bay National Estuarine Research Reserve, we take responsibility for one the largest wetlands in the region. By all accounts the Jug Bay wetlands are presently holding their own.

To understand the future we have to know the present. The present however is not a point in time, but it is a small interval in time within which change seems imperceptible. Our tendency is to think of the future as an extension of the present, but several forces preclude us from doing that. Budget restrictions are severe; so expansion of programs at Jug Bay will be limited to what current staffing permits. There will be a great tendency to let many properties lie fallow or revert to a natural state. Perhaps this would be okay, if the present were not changing.

Unfortunately, the EPA report implies that changes will occur in decades and will be climate driven. These environmental forces are far stronger than the natural progressions we were taught just a few decades ago. Jug Bay itself reflects the scale of human activity; open embayments became filled with agricultural sediment to form the wetlands, while the railroad levee constrained the river in a way that created the broad expanse of the bay itself. Local lore has it that Jug Bay resulted from a Nor'easter in the 20's or 30's. The EPA report implies that the natural accretion of sediment should exceed the sea-level rise and land subsidence. But parts of Jug Bay show that, if a net increase happens, it may be distributed sporadically. Storm surges now overrun some accreted wetlands; perhaps some future storm will return them to an open bay. Upheavals of this magnitude coupled with the underlying forces of climate change, will almost overnight change the wetlands while the surrounding upland marches inexorably to a southern forest².

We must accept the fact that change is occurring and strategies for the Sanctuary that project the future must not be based on what we see today. Strategies for Jug Bay must view functioning wetlands as the critical resource for the environment. Their economic value in terms of removing nutrients and sequestering carbon is unmatched by any man-made means.

Any assessment must point the way towards "maintaining" the centerpiece of the Sanctuary, the wetlands. I did not use the word "preserving" because we won't be able to do it. We will have to accept that radical changes are likely. Therefore, we must orient programs, research and education missions to adapt to that reality. The research programs could be uniquely positioned to start observations for the harbingers of rapid change. We should not view the changes as degradation to the environment but as a change to a new state of sustainability. Our research must point the way and our actions should be in concert with this change.

We will need to work with these natural changes rather than fight a losing battle to maintain the status quo.

Al Tucker, President

1. **Coastal Sensitivity to Sea Level Rise: A Focus on the Mid-Atlantic Region**, CCSP 4.1,

<http://www.climatechange.gov/Library/sap/sap4-1/default.php>, January 15, 2009

2. **Climate Action Plan**, <http://www.mdclimatechange.us/index.cfm>, August 27, 2008

FOJB Events

Register through
www.friendsofjugbay.org

Annual FOJB Meeting

Sunday, March 22; 2:30-5:00 pm

Join us for the Annual meeting where you have an opportunity to talk with other members while enjoying a variety of pot luck savory and sweet dishes. The social gathering will be followed by an election of new Board members, a brief general meeting, and announcement of the recipient of the 2009 Jug Bay Award. Our guest speaker is wetland restoration expert Keith Underwood. Since 1996, Underwood & Associates has developed methods to restore and re-integrate wetland ecosystems into the human occupied landscape.

Going Native: A Workshop on Planting Wisely

Saturday, April 4; Lecture: 1:00-2:00 pm; Field Trip: 2:00-3:00 pm

Mary-Stuart Sierra, a member of the Friends and owner of Lower Marlboro Nursery, will provide tips for creating an eco-friendly landscape using native plants and non-invasive exotics suitable to the Mid-Atlantic region. Mary-Stuart will bring demonstration plants and conduct a field trip to her near-by nursery following the lecture.

Impressions of Nature

Sunday, May 3; noon-4:30 pm

Bring your picnic lunch and enjoy an afternoon of acoustical music and nature-themed art. Artwork by local artisans as well as talented Sanctuary volunteers and FOJB members will be available for purchase. Proceeds will benefit the Friends of Jug Bay.

Volunteer Highlights

Sue Ricciardi: 2008 Ron Blake Outstanding Volunteer Award Recipient

By Susan Matthews

In 1985, our Department created the Ron Blake Outstanding Volunteer Award in honor of Mr. Ron Blake, a former member of the Recreation Advisory Board and community volunteer. This award was designed to recognize the achievements and service of volunteers who support the Department. We are very pleased that long-time Jug Bay bird researcher Sue Ricciardi was chosen as the 2008 Ron Blake Award recipient.

Sue's interest in bird studies and conservation began in 1973 when she observed a Northern Flicker in her backyard. Her interest in backyard birding quickly grew to a passion. Even before the Sanctuary was formally established, Sue along with Dotty Mumford and Chris Beaton, were requested by the county to survey bird life on the newly

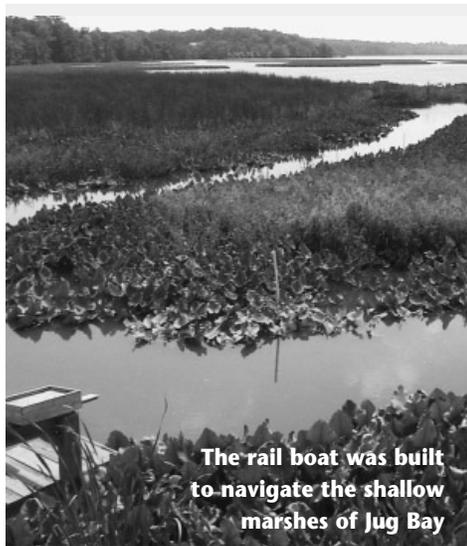


acquired property.

Sue has organized and participated in scientific research projects and has been a leader in both of Maryland's Breeding Bird Atlas projects. She spoke on the Patuxent estuary waterbird study at the 2008 Jug Bay Research Symposium and is a former president of the Anne Arundel Bird Club. In the spring you can find Sue at Fort Smallwood Park where she leads a long-term raptor migration study.

Sue believes that the volunteer field research at the Sanctuary provides an invaluable service to the Sanctuary and the community. In her own

words, "Ultimately, volunteers bring more of the community, including themselves, to experience the Sanctuary so that all may take a personal stake in carrying out its mission." We thank Sue for her continuing hard work and dedication.



The rail boat was built to navigate the shallow marshes of Jug Bay

Rail Boat Rides Again

Now that the weather is warming and the marsh is coming to life for the season, we have created a schedule of suitable Wednesdays and weekends when our authentic, restored rail boat can be taken out for excursions. Three adults, or two adults and two children can be seated comfortably. Life jackets are available at the Wetlands Center if you do not have your own. Please call our office to make your reservation (410) 741-9330.

Donations:

- **Mike Quinlan** for Peterson's Guide to Eastern Butterflies & Butterflies of the East Coast, an Observer's Guide by Rick Cech and Guy Tudor, Peterson's Field Guide to Mammals, and a Herpetology book by George R. Zug
- **Cynthia Bravo** for The Lives of North America Birds by Ken Kaufmann
- **Karen Caruso** for How Do Spiders Make Webs? and How Do Bats Fly in the Dark? by Melissa Stewart, and Mosquitoes by Sally M. Walker
- **Yuka Tasumi** for a coffee table and end table at Plummer House.
- **Peter Givan** of the Wild Bird Center in Rockville for 80 lbs of bird seed.

Sanctuary Expanded by 37 acres

By Chris Swarth

In recent months the County has used Program Open Space funds to purchase two new properties, protecting the ecological integrity of the Sanctuary and especially Galloway Creek. The 30-acre Shepherd property in Wayson's Corner (just north of Route 4) is now owned by the public and has been named the Preserve at Wayson's Corner. We have mounted several reconnaissance surveys and a group of Penn State University alumni spent a long, hard day removing trash. Eventually we may create a hiking trail through this land. Permanent protection means that the types of large-

scale commercial development that were proposed for this site will never take place.

The 7-acre Dorr property, which lies along the northern edge of the Glendening Nature Preserve at Route 4, is also now a part of the Sanctuary. This parcel borders Galloway Creek, and its protection means that the watershed will not be compromised by commercial development that was planned for this location. Both sites are almost entirely forested.

We thank County Executive John Leopold and Recreation and Parks Director Frank Marzucco for their action and commitment to land preservation.

County to Conduct Managed Deer Hunts to Restore Forested Parklands

by Chris Swarth

In fall 2008, the County Council voted unanimously to authorize the use of managed hunting to reduce populations of white-tailed deer in county parks. Through no fault of their own, dense populations of deer can have a severe impact on many native plants and animals. For example, overbrowsing removes plants that are critical to the survival of many other mammals, songbirds, insects, and reptiles. Deciduous tree seedlings are consumed at such a high rate that there is no crop of younger trees to replace older trees that die or topple over in storms. In 1989, Dr. Jess Parker, a forest ecologist with the Smithsonian Environmental Research Center, conducted a field trip here and was startled by the lack of oak seedlings in our forest. This was an early sign that the Sanctuary was probably suffering from too many white-tailed deer. Overbrowsing of forests may cause fundamental changes that could take decades to reverse. Since at least



1999, we have noted shrub and tree damage by deer and a decline in the numbers of shade-tolerant ephemeral wildflowers in the forest. Deer are causing tens of thousands of dollars of damage annually to the four farms that surround the Sanctuary. Too many deer also increases the spread of Lyme disease and there have been many deer struck by vehicles on roads adjacent to the Sanctuary.

Two helicopter surveys revealed that our deer population is at least three times greater than what our forests can support before serious ecosystem damage occurs.

After numerous meetings with Department of Natural Resources managers and experts from the Howard County Parks Department and others, a consensus was reached that deer control was necessary to halt the damage. We have formed a committee that is developing guidelines and procedures, and we plan to hold the first deer harvest in fall 2009. Hunting will be limited and will be restricted to days when the Sanctuary is closed. Experienced, qualified hunters will be used to cull the deer. All deer that are taken will be consumed or provided to groups that make the deer meat available to others. While none of us look forward to using lethal methods to reduce Sanctuary deer populations, as stewards of these lands we have an obligation to take this step. Eugene Meyer, a member of the Sanctuary's scientific advisory committee, is developing methods that can be used to measure forest regeneration that results from the deer control program.

Project WET Teacher Training

By Susan Matthews

On February 21 we held our first Project WET Teacher Training here at the Sanctuary.

Our staff naturalist Susan Matthews along with Stacy Epperson from Arlington Echo Outdoors Education Center led participants through several hands-on learning activities. After lunch our participants layered up and headed to Two Run Creek to search for macroinvertebrates. During the stream survey Michelle Stephenson, a reporter for the Annapolis Capital, interviewed a few of the Project WET participants to find out what they enjoyed most about the workshop. The write-up can be viewed in the community section of *The Annapolis Capital: A new approach to teaching science*. We are very pleased that Michelle was able to join us and help spread the news regarding the success of our workshop. All participants in

this 6-hour workshop received a certificate of completion and a copy of The K-12 Project WET Curriculum Guide containing a wide variety of water-related topics including the water cycle, water conservation, wetlands ecology and much more.

Participants learning about macroinvertebrates at Two Run Creek.

Clockwise from top: Lindsay Hollister, Heather Minick, Stacy Epperson, and Gretchen Quast. Steve Hammond, and Heather Minick examining a dobsonfly larvae. Lynn Kenny examining a macroinvertebrate up close.



Spring 2009 Public Programs at Jug Bay

- Reservations and entrance fees are required for all events, unless noted.
- Call 410-741-9330 or e-mail programs@jugbay.org
- Check www.jugbay.org for information, directions and updates to our schedule.
- Open to the public 9 am-5 pm Wednesday, Saturday, and Sunday
- Glendening Preserve open every day at Wrighton Road entrance and beginning in April, open Saturdays at the Plummer Lane entrance
- Programs are open to families and individuals. An adult must accompany children under 13.
- Scouts and other groups must call to arrange a separate program.
- Please note age limits for each program.

Entrance Fees: Adults \$5; Children under 18 \$3; Over 60 \$3; FOJB family membership \$25.

Birding at Jug Bay

Saturday, April 4; 8:00-11:00 am

Saturday, May 2; 8:00-11:00 am

Saturday, June 6; 8:00-11:00 am

Learn the skills of identifying birds by sight and sound. Binoculars and field guides will be available to borrow. Not appropriate for children younger than 12.

Sky Dance

Saturday, March 7; 5:45-6:45 pm

Late winter is the time for the annual courtship display of the American woodcock, a.k.a. timberdoodle. You can watch this dazzling aerial show right from your car! Male woodcocks should be performing their mating ritual at dusk over the meadow in front of the Wetlands Center parking lot. Binoculars are not necessary, but it's always a good idea to bring them along, just in case some other interesting creature wanders past. You might even see a woodcock on the ground after it has landed. Dress for the weather. Appropriate for adults and children at least 10 years old. No entrance fee.

March Equinox Hike

Saturday, March 21; 5:00-7:30 pm

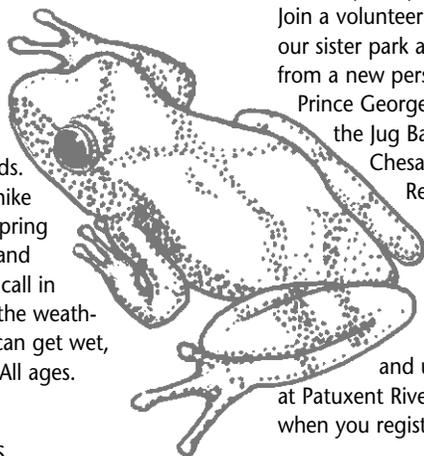
The March (Spring or Vernal) Equinox marks the first day of spring. We'll meet at the Wetlands Center and take a moderate hike, watching for signs of the new season. We'll end by watching sunset from the Marsh Boardwalk, and return to the Center for a snack. Participants should be prepared to walk at least two miles on natural surface trails. All ages welcome.

Spring Peepers

Saturday, April 4;

6:30-8:30 pm

Learn about the amazing amphibians that breed in Jug Bay's ponds. We'll take an evening hike to listen and look for Spring Peepers, Wood Frogs, and other amphibians that call in early spring. Dress for the weather, with footgear that can get wet, and bring a flashlight. All ages.



Nature Detectives

Saturday, April 25; 10 am-noon

Where do animals go and what do they do? Become a Nature detective and search for clues like animal tracks and burrows to learn how to unravel nature's mysteries. Designed for families with children of all ages

Snakes

Saturday, April 25;

1:00-3:00 pm

Expand your horizons and learn some fascinating facts about our legless friends. Through observing live snakes and going on a hike you'll increase your appreciation of these misunderstood reptiles. Designed for families with children ages over 6 years old.



Ospreys

Sunday, April 26; 1:00-3:00 pm

Jug Bay is home to one of the largest Osprey populations in the world, yet they are only summer residents. Each year, in the beginning of March, Ospreys can be seen building their nests and performing their "fish flight" courtship ritual. Learn about their migration, life history, and unique adaptations to living by water. For adults and families with children at least 8 years old.

The Other "Jug Bay"

Saturday, May 2; 10:00 am-2:00 pm

Join a volunteer naturalist for a vigorous hike at our sister park across the river and see Jug Bay from a new perspective. Patuxent River Park, in Prince George's County, is another piece of the Jug Bay component of the Chesapeake Bay National Estuarine Research Reserve-Maryland (CBNERR-MD). Sturdy footgear recommended. Bring cameras and binoculars. Be prepared to hike 4 to 6 miles on natural surface trails. For adults and children 12 and up. Meet at the Visitor's Center at Patuxent River Park. Directions provided when you register.

Wonderful Wetlands

Saturday, May 9; 1:00-3:00 pm

Saturday, May 30; 1:00-3:00 pm

Freshwater wetlands are home to a variety of fascinating plants and animals. Join a naturalist on a boardwalk tour to enter the wonderful world of wetlands. For adults and children 5 years and older

Meet Your Master Watershed Steward

Saturday, May 9; 10 am-noon

We're all part of the problem; we should all be part of the solution. Community members are invited to join naturalist Lindsay Hollister for a discussion of Anne Arundel County's new Master Watershed Steward program. Learn about the specific issues that affect your backyard, and what your Master Watershed Steward can do about it with your help.

Discover Wetlands by Canoe

Saturday, May 16; 9:00 am-1:00 pm

Saturday, May 30; 9:00 am-1:00 pm

Saturday, June 20; 1:00-4:00 pm

See what spring on the Patuxent River has to offer. We'll paddle up some of the smaller branches of the river to look for beavers, birds, and spring blossoms. Please arrive promptly at the starting time. Bring plenty of water, sunscreen, a lunch, and shoes that can get wet. Children must be 10 years or older and accompanied by an adult.

To reserve a space, mail your payment of \$10 per person (including FOJB) in advance to the Sanctuary. Please include your names, address, daytime phone number, the number of people in your party and the ages of children as well as a first and second choice of dates.

Pond Exploration

Saturday, May 16; 1:00-3:00 pm

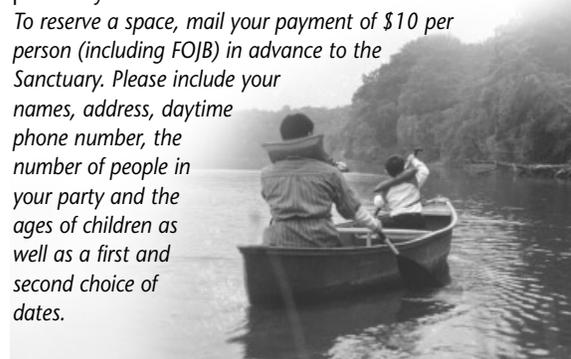
Saturday, June 6; 1:00-3:00 pm

Come explore our ponds! We'll search for tadpoles, frogs, turtles, dragonflies and other aquatic animals. Equipment and field guides provided. Wear boots or tie shoes (no Crocs or open toe footwear) that can get wet and bring a change of clothes and a towel. All ages welcome.

Summer Solstice Hike

Sunday, June 21; 7:00-9:00 pm

Celebrate the longest day of the year and the start of summer by hiking the summer woods. We'll end the hike with a light snack. All ages; children should be able to walk up to 3 miles on natural surface trails at a moderate pace. Trails are not easily traveled by strollers.



Programs at the Glendening Nature Preserve

Meet at the Plummer House, 5702 Plummer Lane.

Spring is Here: Create a Honeysuckle Wreath

Saturday, March 21; 10 am-noon

Come join us as we search for the first signs of spring. We will listen for spring peepers, and search for the first signs of skunk cabbage as it emerges to fill the flood plain with its bright green leaves. Along our walk we will keep our eyes peeled for a non-native visitor to our forests: Japanese honeysuckle. We will collect honeysuckle vine and create spring wreaths. Children should be at least 7 years old.

Spring Peepers

Saturday, April 11; 6:30 - 8:30 pm

Learn about these amazing small amphibians that breed in ponds. We'll take an evening hike to listen and look for Spring Peepers, Wood Frogs, and other amphibians that call in early spring. Dress for the weather, with footgear that can get wet, and bring a flashlight. All ages.

Earth Day Bayscape Dedication and Native Plant Celebration

Saturday, April 18; 10:00 am-noon

All are welcome to dedicate our new gardens at Plummer House. We will be installing native flowers, offer tours around the building to explain the work that has been done and how you can do similar things at home, lead hikes, and have a native plant give-away for folks willing to get their hands dirty. All ages. "; in frog photo caption, add to end "but you'll have to take a closer look to get the species right. All ages. No fee.

Frog and Salamander Jubilee

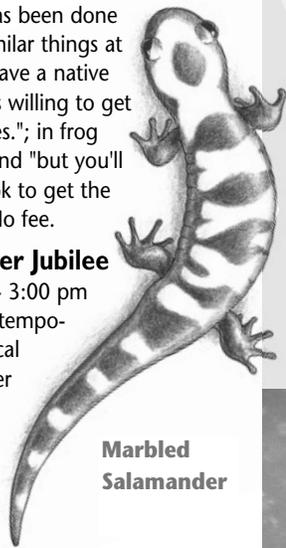
Saturday, April 18; 1:00- 3:00 pm

Vernal pools are special temporary ponds that are critical for amphibians and other animals. We'll enjoy a slide show to learn about the types of animals that use our vernal pools and then we'll take a trip to see where the magic happens! Wear shoes that can get wet and bring a change of clothes and shoes. For adults and teens.

Take Mom Out for a Walk

Sunday, May 10; 2:00-4:00 pm

Want to do something nice for Mom on Mother's Day? Treat her to a spring walk with a naturalist through the forest and fields of the Glendening Preserve. For families with children ages 6 and older. Children should be able to walk several miles. Wear sturdy walking shoes.



Marbled Salamander

Take a Closer Look

By Sara Levin

This "creature feature" style column is devoted to things small or easily overlooked. Each feature reveals the answer to the last feature and offers a new mystery to intrigue. E-mail lindsay@jugbay.org to make your best guess!

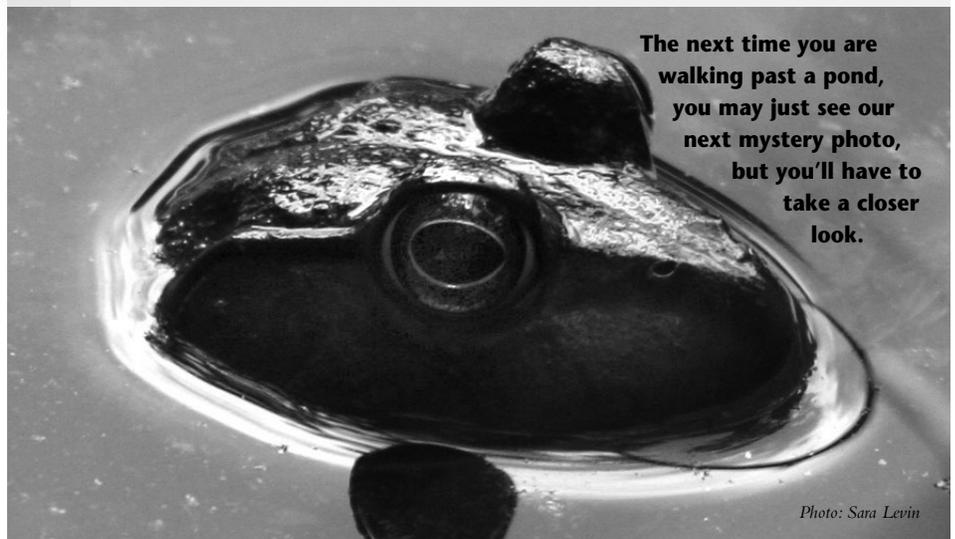
The mystery photo from the last issue wasn't just a mystery to you; it took me quite a while to figure out what it could be! The picture of white filament-like fluff in the crook of the small stem is the woolly aphid.

Woolly aphids differ from other aphids in appearance, life cycle, and the type of damage they cause. A colony appears as a cottony mass usually clustered in wounds or pruning scars on the trunk and branches of a tree. The aphids themselves are purplish in color surrounded by white, cottony, thread-like secretions. The name comes from the woolly appearance of the colonies. Long strands of white wax are produced to protect the colony from predators.

Woolly aphids are sucking insects that weaken young trees by feeding on the sap in limbs and roots. Reproduction on the host plant is asexual (parthenogenetic). Wingless adults bear live young, producing several generations of wingless aphids. As the number of aphids on the above-ground portion of the tree increase, many work their way down to the roots. A sign that woolly aphids are infesting roots is twisted and curled leaves, yellowed foliage, poor plant growth, low plant vigor, and branch dieback. Mature trees usually suffer little from the root infestations, but severe root infestations can stunt or kill young trees.

Because aphids are sap feeders, they produce a sweet, sticky waste product called honeydew. It can coat leaves, bark, and objects beneath the tree, giving them a wet, shiny appearance. If you have ever noticed a black growth on leaves or branches, you have aphid evidence. Called sooty mold, this fungus grows on the excreted honeydew of aphids. Sooty mold does not damage the plant, but heavily infected leaves can have a lowered photosynthetic rate.

Though woolly aphids can be pests, they tend to occur sporadically in the northeastern United States, occurring in noticeably high numbers only every few years. Should you run for the insecticide if you get an outbreak? Nature already has a solution, the harvester is the only carnivorous North American butterfly; when a caterpillar, it specializes in eating woolly aphids. So try and enjoy the snow white beauty of these tiny creatures knowing that everything has its purpose.



The next time you are walking past a pond, you may just see our next mystery photo, but you'll have to take a closer look.

Photo: Sara Levin

Jug Bay Summer Camps

Give your child a natural adventure at the Sanctuary's Summer Day Camp. Our camps are designed to introduce campers to wetland ecology, plants and animals, and fun! During these outdoor all-day programs, campers explore the natural world and conduct ecological studies through hands-on activities. Group size is limited, with a staff-to-camper ratio of 1:5.

Registration information:

- Children must be entering the grade specified.
- Complete the form for camps in the bulletin and mail with check made out to Jug Bay Wetlands Sanctuary and sent to Jug Bay Wetlands Sanctuary, 1361 Wrighton Rd, Lothian MD 20711
- Registration is on a first-come, first-served basis, by mail or walk-in.
- Registration fee must be paid at time of registration by cash or check only.
- Camp size is limited. You will be notified of your registration for camp or if a camp is filled.
- All registrants will receive a confirmation and carpool list prior to camp.
- Individuals with disabilities will be accommodated if JBWS is given at least 2 weeks notice.
- Full refunds are given only when a camp is canceled by JBWS. Full refunds will be given due to illness if the request is made prior to the start of camp and accompanied by written verification from a physician. An 80% refund will be given if you cancel before the scheduled start date.
- Participants may be photographed during programs; JBWS and Anne Arundel County may reproduce the photographs.



Wetlands are Wonderful

for children entering 5th or 6th grades in Fall 2009

Monday, June 22-Friday, June 26

9:30 am-3:30 pm

Join us for a natural adventure in the marshes of Jug Bay. Children will be involved in seining for fish, testing water quality, canoeing and camping out under the stars. Each day we will be exploring the wetlands, learning what makes them work and why they are important. A canoe trip, overnight campout, and a night hike are highlights of the camp. Art projects, games, and experiments will enhance our daily activities.

Fee: \$150 per session (\$130 for FOJB members)

A River Runs Through It

for children entering 7th or 8th grades

Monday, July 6-Friday, July 10

9:30 am-3:30 pm

Explore the Patuxent River, its streams and wetlands. Each day we discover the role forests, wetlands, and people play in determining the health of the river and the Chesapeake Bay. We'll search streams for insects, frogs, and fish, and canoe through the marshes. The Thursday camp-out features games, crafts, and a night hike.

Fee: \$150 per session (\$130 for FOJB members)

Paddling the Patuxent

Entering at least 9th grade in Fall 2009

Monday, July 20: 9:00 am-4:00 pm

Tuesday, July 21; 9:00 pm-Friday, July 24; 3:00 pm

The Patuxent River Teen Paddle is a five-day (with 3 nights camping) canoeing and kayaking expedition geared towards high-school students. This trip features educational programming, river-side camping, festive meals, and much more. Novice and experienced paddlers alike enjoy a unique on-the-water experience that builds a strong stewardship ethic for the river and its natural resources. We are capping registration at 15 participants to maintain a hands-on learning environment.

Monday will be a day of practicing and refining our canoe techniques, reviewing the week's schedule and team building activities. Tuesday morning we'll begin a multi-day canoeing and camping journey down the Patuxent River. Canoes, paddles, life vests are provided. Teens provide their own sleeping bags and personal equipment, and can share tents with other campers. Some tents are available to borrow. Many meals are included in the fee. Call 410 741-9330 for a detailed itinerary of the week and supply list. We welcome suggestions for activities!

Fee: \$225 (\$200 for FOJB members)

Checks should be made out to MNCPPC. Mail to: Bart Merrick, CBNER DNR, 580 Taylor Ave, E-2, Annapolis, MD 21401.



Field Investigations for Teens

Marsh Plants and Fish

Entering at least 9th grade in Fall 2009

Thursday, July 2; 9:00 - 3:00

If you have an interest in biology or ecology and enjoy the outdoors, this field investigation program is for you. Learn how field ecologists study plants and animals in the forests, wetlands, and rivers. Be prepared to get wet and muddy! Fee: \$10.00



Volunteer Opportunities

Volunteers are an essential part of the Jug Bay community; assisting in research, education, stewardship, and behind-the-scenes activities. All receive free admission to the Sanctuary and other benefits throughout the year.

Spring Stewardship Day

Saturday, March 28; 10:00 am-noon and 1:00-3:00 pm

Stewardship means taking care of the land we all share. Join us to pick up trash that has floated into the marsh, pull invasive weeds, and maintain our native plant gardens. Please dress in work clothes (long sleeves and long pants), including boots or shoes that can get wet, and bring work gloves, a bag lunch, a change of clothes and a towel. Children should be at least 6 years old. Scout troops and community groups are encouraged to participate. Sign up for am, pm, or both.

Canoe Guide Orientation

April 4; 1:00-3:00 pm

Become a canoe guide! This workshop will be a land-based training for both experienced and new volunteers, and will cover volunteer responsibilities, canoe safety and paddling techniques, canoe routes, marsh ecology, and an overview of Sanctuary policies. Volunteers must have canoeing experience. For adults or older teens.

GIS part 2

Sunday, April 11; 1:30-4:30 pm

\$5 per person

Building on November's GIS workshop, Jeff Campbell will show you how to combine GPS (global positioning system) data with existing GIS Map data. Learn how to transfer data from the GPS and convert it to a usable format for use in MapWindow, free GIS software. This program is for adults involved in Sanctuary field work. You may bring your laptop to use during the workshop but ask for details when you register.

Stream Monitoring

Saturday, April 18; 12:30-4:00 pm

Volunteers are needed to help collect, identify, and count stream invertebrates that are used to evaluate stream health. Please bring waterproof shoes or boots and dress for the weather. For teens and adults.

Naturalist in-field Training

Saturday, April 25; 9:30 am-3:30 pm

For those who are hands-on learners, we are offering an all day, in-field training session to learn about some easy-to-lead programs. Participants will shadow naturalists during the day's public programs to see the basics of group dynamics in action. We will follow the Nature

Detectives group in the morning, have a "working lunch" discussion, then join the Snakes program in the afternoon. Volunteers unable to stay the whole day are welcome to join one or the other session. For older teens and adults.

Canoe Trip for Volunteer Guides

Sunday, April 26; 1:00-5:00 pm

These trips allow volunteers to refresh their canoeing skills and learn more about the Patuxent River and wetland ecology. Canoe leaders get priority, but all volunteers are welcome.

Fish Survey

Saturday, May 9;

1:30 - 4:30

Using a seine net, we monitor the fish populations living in creeks. Volunteers willing to get wet are needed to help catch, identify, and measure (and then release) fish. Wear shoes and clothes that can get wet and muddy. Bring a change of clothes and a towel. Children must be at least 12 years old.



Leading Field Trips for Adults

Saturday, May 16; 10:00 am-2:00 pm

Leader: Karyn Molines

Leading a field trip can be intimidating: Do you know enough? What if we get lost? To be good field trip leader you do not need to be an expert. All you need is excitement, enthusiasm and curiosity. This indoor/outdoor workshop will cover the basics of leading field trips and tips and tricks to encourage group interactions. This program, co-sponsored with the Maryland Native Plant Society, will focus on plants but will include other observations. Bring lunch, notebook, pen/pencil. Dress comfortably for indoor and outdoor conditions. Optional: field guides, hand lens, binoculars, camera.

Naturalist Training - Birds

Saturday, May 23; 8:30-11:00 am

As a Nationally Important Bird Area, the Sanctuary is a prime place for birders of all levels. Come learn about some of the nearly 300 species that live in or visit Jug Bay and how you can get involved with our bird-related education programs and research. For teens and adults.

Reaching out to Volunteers with Disabilities

By Lindsay Hollister

Pouring out of their Job Coach's car, small groups of volunteers have been coming to the Wetlands Center on weekdays to help with maintenance and administrative projects. Though all are eager, some of these new volunteers are quiet and hide behind a friend. Others are outgoing and talkative. All have been helpful and fun to work with.

Over the summer we were approached by, and have developed a partnership with The ARC of Southern Maryland. From their website,

"The Arc of Southern Maryland promotes community involvement, independence and personal success for children and adults with intellectual and developmental disabilities."

Having the chance to work with volunteers with disabilities has helped open my eyes to a broad community of individuals trying to participate in a society that can easily blow past them. At a recent training workshop I got three of 10 questions wrong in a Disability Awareness Quiz. A startling fact I learned is that people with disabilities represent the nation's largest minority at 29% of our population. I also learned that two out of three people with disabilities prefer to work. I am glad we can help with that part.

So far, our new volunteers have helped clear plant debris from the Scrub-Shrub Boardwalk and the aquatic education tanks, picked up the mast crop of black walnut seeds that made our yard an obstacle course, and are helping to catalog all of the digital images we have stored on our computers. This rewarding challenge has been a good learning experience, and we will continue to work with ARC. Thanks guys!



ARC volunteers cleaning leaves from our aquatic education tanks. From left: Roby Walker, Lisa Jones, Rico Rice.

Photo: Lindsay Hollister

Taking Responsibility for the State of our Natural Resources in the 21st Century

By Lindsay Hollister

The Master Watershed Stewards Academy

We are all part of the problem; so we should all be part of the solution. This is the impetus behind a new partnership that brings activism home. Anne Arundel County staff are bridging the gaps between the myriad of ecologically focused programs and resources that exist and distilling them for the Master Watershed Stewards program.

This program was imagined and realized by Director of Public Works Ron Bowen, Environmental Planning Administrator Ginger Ellis, Arlington Echo Outdoor Education Center Director Steve Barry and Community Stewardship Coordinator Suzanne Kilby Etgen.

This spring, twenty area naturalists, land managers, master gardeners and other concerned citizens will embark on a journey to become fluent in the efficient, effective ways to communicate with home owners, government officials, and businesses on how, working together, we can improve our water quality. This grass roots effort puts the emphasis on educating at the watershed level. Each person going through the Master Watershed Stewards Academy is taking on the responsibility for the sub-watershed that they live in to become a point of contact for issues at the local level. Through the context of improving the infiltration of stormwater runoff, we will become versed in how to use GIS, visit demonstration projects, learn about county politics, applying for grants, and receive training on community organizing.

At the completion of our training we will be ready to delve into our communities and handle a variety of environmental issues. One of the best parts of the program, though, is the support structure we will always be able to draw on should a situation arise that we cannot handle on our own. This ensures that once through the training we will receive ongoing assistance and continued training to keep ourselves relevant. Join us on May 9 to meet your new



Master Watershed Steward and discuss issues on which we can act together!

Bayscape Makeover For Your Yard

After its dedication last April, Plummer's Corner has been receiving more and more attention. It has been the recipient of a large and stunning butterfly garden, designed and installed by volunteer Dave Perry. The "front yard" will be transformed into a wildflower meadow this season by volunteer Mike Quinlan so that passersby can see the benefits of open land. Plans are underway between Anne Arundel County and our partners in the Chesapeake Bay National Estuarine Research Reserve to install a suite of solar panels on the roof. And this spring the house will get a Bayscape Makeover.

In January (and again in February due to its popularity) we welcomed area homeowners to Phase 1 of Bayscaping. There are many ways to describe so-called "Bay-friendly" landscaping. Rain gardening, xeriscaping (for dry habitats), and native plant gardening are just a few. All follow some combination of the following principles: enhance infiltration of storm water (preventing runoff), increase habitat for wildlife, minimize maintenance (including watering), and reduce non-native (especially invasive) plants. When done correctly, these gardens can bring back many of the free, and essential functions that a wild ecosystem provides for us. This turns our parcel of earth into healthier habitat for wildlife, provides more and cleaner groundwater, and looks attractive too. Using the Plummer House as our demonstration site, we walked folks through

the benefits of Bayscaping and provided the opportunity to practice designing a garden. Their ideas will be incorporated into the final plans for the Phase 2 installation.

The best part about Bayscaping is that no matter how small or large our parcel of earth, everyone has a stake. A groundbreaking book was recently published called [Bringing Nature Home](#) by Douglas W. Tallamy.

Now, for the first time in its history, gardening has taken on a role that transcends the needs of the gardener. Like it or not, gardeners have become important players in the management of our nation's wildlife. It is now within the power of individual gardeners to do something that we all dream of doing: to "make a difference." In this case, the "difference" will be to the future of biodiversity, to the native plants and animals of North America and the ecosystems that sustain them.

Tallamy, an entomologist has created an easy to read, yet comprehensive resource explaining how we can salvage what's left of our biodiversity. For those of us who enjoy birds, take heed. Without the diverse native plants on which they feed, herbivorous insects are doomed; and without that summer supply of protein-packed bugs for our feathered friends to eat, goodbye thrushes, flycatchers, warblers, and so many others.

It sounds grim, and decades of research on plant/animal/living space relationships confirm that it is happening, but we can halt and even reverse this loss of diversity! Join us for the Plummer Bayscape dedication ceremony on April 18 to learn more about Bayscaping and the benefits of native planting, and take home a free native plant to get started.

Wild Rice Restoration: Success in Jug Bay's Tidal Freshwater Marshes

By Patricia Delgado

Wild Rice, *Zizania aquatica*, a native plant of tidal freshwater marshes provides important nutrition for many fall-migrating waterbirds in the Chesapeake Bay region including soras, wood ducks, and American black ducks. Anecdotal accounts

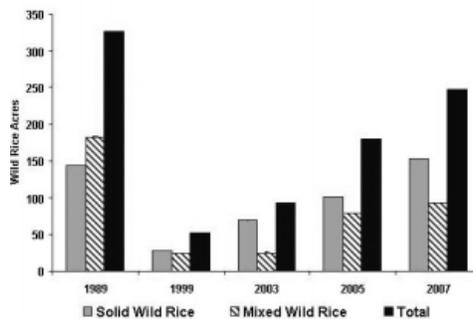


Greg Kearns and a volunteer install fencing to protect rice stands.

suggest wild rice was common throughout the Chesapeake Bay and particularly in the wetlands of Jug Bay, a component of the Chesapeake Bay National Estuarine Research Reserve in Maryland (CBNERR-MD). Wild rice populations began declining in the 1990s, reportedly due to grazing by increased populations of resident Canada geese (*Branta canadensis*) population. Research and restoration efforts supported by CBNERR-MD have been underway since. Efforts to restore wild rice to historical distributions have centered on protecting this marsh plant from geese herbivory via the use of fenced exclosures. Other practices used to ensure wild rice recovery included the seeding of mud flats, transplanting seedlings, and reducing the resident Canada goose population through hunting. These practices started in 1999 and have continued to the present.

How successful has wild rice restoration been? Field accounts indicate that the recovery of wild rice within the tidal freshwater marshes of Jug Bay has been a

tremendous success! In an effort to quantify the changes of wild rice populations before and after restoration, a change analysis using aerial photography was conducted. The coverage of wild rice within Jug Bay was estimated for 1989, a time of historical high abundance; 1999, when abundance was at its lowest and when restoration efforts began; and 2003, 2005, and 2007, corresponding to different time periods of restoration. Results from this analysis have shown a steady recovery of wild rice.



Wild rice coverage estimates derived from aerial photography delineation analyses. Analyses were conducted by the Towson University Center for GIS.

During 1989, an estimate of 327 acres of pure and mixed wild rice stands were present. By 1999, about 84% of these stands had disappeared. After only four years of restoration, a 29% recovery was observed; and by 2007, approximately 247 acres of wild rice had been re-established, which corresponded to a 76% recovery from the estimated coverage of 1989. The comeback of wild rice is evident and its abundance is reaching values similar to those found before the widespread decline of the 1990's.

The successful recovery of the Jug Bay wild rice community has been the result of a tireless effort led by Greg Kearns, Patuxent River Park Naturalist and recipient of the 2007 Conservationist of the Year award, as well as the work of other staff and volunteers who have dedicated many hours in the field to restore this valuable resource!

While we celebrate the great restoration



Jug Bay is one of the three components in the Chesapeake Bay National Estuarine Research Reserve, Maryland. The purpose of CB-NERR is to manage protected estuarine areas as natural field laboratories and to develop a coordinated program of research and education as part of a national program administered by National Oceanic and Atmospheric Administration (NOAA).

STAFF

Beth Ebersole
Reserve Manager
410-260-8720
bebersole@dnr.state.md.us

Bart Merrick
Education Coordinator
410-260-8827
bmerrick@dnr.state.md.us

Pati Delgado
Research Coordinator
410-260-8983
pdelgado@dnr.state.md.us

Sasha Land
Coastal Training Program Coordinator
410-260-8718
sland@dnr.state.md.us



Check out the CBNERR-MD web page at www.dnr.state.md.us/bay/cbnerr

success of wild rice, we should keep in mind that this is not the end of the road. A continuing effort to keep these populations healthy needs to be sustained, particularly considering additional stressors from climate change and increased development within the watershed. We should also recognize that by restoring wild rice, we are not only ensuring the persistence of a beautiful marsh plant, but that of those animals who depend on it!

SPRING 2009



DEPARTMENT OF RECREATION AND PARKS

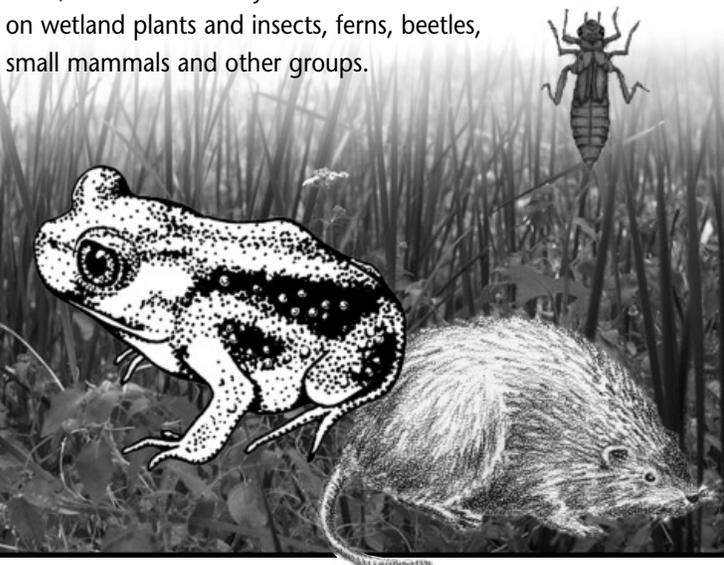
Jug Bay Wetlands Sanctuary
1361 Wrighton Road
Lothian, MD 20711
410-741-9330

*The
marsh
is
awake*

BioBlitz is Back!

Mark your calendars for June 13-14, 2009
 (Noon - Noon)

Learn more about Jug Bay's amazing biodiversity! Join biologists on a "species search." Experts and volunteer searchers will work in teams to discover, identify, and document as many organisms as possible over a 24-hour period. Teams will search the wetlands, fields, and forests. This year we will concentrate on wetland plants and insects, ferns, beetles, small mammals and other groups.



Winter Volunteers

(November 2008- January 2009)

Lawrence Ash	Diane Goebes
Colin Barnett	Ernie Goins
Sandy Barnett	Jim Harle
Larry Beverungen	Darcy Herman
Susan Blackstone	Mike Hornish
Cynthia Bravo	Lynn Kenny
Peggy Brooks	Matthew Larabee
Judy Burke	Dave Larrabee
Jennifer Burroughs	David Laughlin
Gordon Burton	JoAnna Leaderman
Mary Burton	Alec Loudermilk
Danny Bystrak	Cliff Loudermilk
Jeff Campbell	Erica Loudermilk
Karen Caruso	Mikey Lutnerding
Kathy Chow	Patrick McConachie
Harry Coulombe	Bill Miles
Brian Davis	Louise Miles
David Davis	Anne Muecke
Mark Delfs	Manfred Muecke
Natalie Dubois	Dotty Mumford
Kim Elliott	Sue Nugent
Emily Evans	Dave Perry
Marilyn Fogel	Willey Persaud
Ric Foster	
David Gillum	
Joyce Gillespie	

Mark Priest
 Carol Quinlan
 Michael Quinlan
 Megan Reiser
 Tim Reiser
 Gordon Reynolds
 Jeff Shenot
 Les Silva
 Bob Smith
 Marc Steinberg
 Al Sutherland
 Liz Sutherland
 Yuka Tasumi
 Sandy Teliak
 Denny Townsend
 Al Tucker
 Peter Uimonen
 Sara Van Schaik
 Roby Walker
 Nancy Weber
 Bruce Weidele
 Bob Williams III
 Dick Worth

*During the winter volunteers
 logged 805.25 hours*

Thanks to all!