



C. Dalpra

Volunteers with the Earth Conservation Corps pull down invasive vines off trees at Anacostia Park in Washington, D.C. The new baseball stadium is under construction across the Anacostia River.

19th Annual Potomac Cleanup Draws Thousands, Collects Tons

The sun rose on the last morning of March, leading to a beautiful day with mild temperatures. That in itself made it unusual for the annual Potomac River Watershed Cleanup, organized by the Alice Ferguson Foundation. The last several events (this year's was the 19th) saw thousands of volunteers clean hundreds of sites throughout the watershed in chilly temperatures under sheets of rain and strong winds.

This year's cleanup was much more hospitable for the nearly 6,000 volunteers who recovered about 130 tons of trash, including more than 106,000 recyclable beverage containers and 12,000 plastic bags from 373 sites, with more than 70 sites not yet reporting results. Over two weeks, the sites were cleaned by groups ranging from a few friends or family

members to sites with more than 100 volunteers. Sites were scattered throughout all the basin states and the District of Columbia. The ICPRB is a major partner in the cleanup, helping to organize sites, distribute supplies, and providing publicity.

The kind of debris taken from the river and its shores is as diverse as the lives of the region's residents, and includes most of the items everyone uses. Parts of cars, home furnishings and housewares, TV sets and other electronics, yard equipment, and cash mingle with the huge volumes of recyclable beverage containers and paper products. Anyone looking for a toy could choose from any type of ball. At one site, an aquarium with filter and pump were discovered.

Each year, the number of sites, volunteers, and amounts of trash collected tend to grow.

Our mission is to enhance, protect and conserve the water and associated land resources of the Potomac River and its tributaries through regional and interstate cooperation.

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Many of the volunteers have participated in the cleanup for years. The continuity has helped to keep the cleanup effort growing, but can be discouraging for those who have volunteered repeatedly for the annual cleanups. Many sites have been on the cleanup list for more than a decade, and are just as trashed each year. More than a few volunteers noted that cleanups could be held on a weekly basis, just to keep up with the trash pollution.

Overall, a sense of stewardship and optimism fuels the cleanup each year, witnessed by the growing number of sites and volunteers. At Anacostia Park in Washington, D.C., several large groups of volunteers cleaned the shoreline, hosted by groups such as the National Park Service, Earth Conservation Corps (ECC), Bank of America, the National Wildlife Federation. They were joined by other groups and individuals. Gabrielle Willis, a 15-year-old from the neighborhood, plucked bottles and cans near one of the park's stormwater outfalls. She said this was her third cleanup at the park. "I come here a lot, and this place is important to me," Willis said as she tossed another can into her trash bag. "I feel like I am doing something for both me and the community by coming out to help clean up," Willis said. She paused to stare out over the river, with the sun shining off the



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water as school rowing crews slipped past. As she moved down the shore, Willis looked back at the area she had freed from trash. "It's really pretty here. I wish it would stay this way for a little while," she said.

Willis was one of perhaps more than a hundred volunteers cleaning Anacostia Park. On the eastern edge of the park near Poplar Point, volunteers with the Earth Conservation Corps cleaned the shoreline of trash, and then began to remove clinging vines that were choking trees near the shoreline. "Its amazing what can get done in half a day when you have the people," said Brian Van Wye, the Anacostia Riverkeeper, who was guiding the vine removal.

The scene was similar up the Potomac at Fletcher's Boat House in the District. A



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Volunteers mine a driftwood-laced shore for trash at Fletcher's Boat House In Washington, D.C.

group of lawyers and other volunteers cleaned trash from the shore of the popular fishing spot. The boat house is at a spot where the river widens, creating an eddy that traps both trash and huge logs that take up residence after being carried downstream by spring rains. Getting at some of the trash required picking around these impressively large pieces of driftwood.

Both of the sites are on National Park Service lands, and park managers are grateful for the help.

"We have a marvelous day, and we are really happy to have all this help in keeping the park clean," said Ranger Wayne Phillips at Anacostia Park. "All these volunteers came out because they care about the park, and they are doing a really good job," he said. The proof of the job well done came when this editor found he had lost a small voice recorder while walking the shore. By the time Ranger Phillips was told to be on the lookout, it had been recovered by a volunteer.

The annual cleanup, especially when the weather cooperates, is also a time to educate and motivate the public. Some sites included displays about various aspects of the environment and the many ways we need to work to keep it clean. Information about invasive species, stormwater control, and other topics was available. Many of the sites have become an annual event, where neighbors meet, talk, and exchange information and views on their community and ways to improve it. Some sites feature picnics afterward to thank volunteers. At Anacostia Park, some of the talk was about the development that is beginning to change the face of the river. The new baseball stadium going up across the Anacostia was a constant reminder of the changes taking place. The stadium is being built as a "green" stadium, although some volunteers hoped that the green building standards used in construction are complemented by an aggressive policy to

contain the trash generated at the site.

The cleanup is the largest regional effort of its kind, and is strongly supported, judging by the strong numbers of volunteers. The volunteers are supported by the Alice Ferguson Foundation and a long list of sponsors, including the National Park Service, The Summit Fund of Washington, Koch Industries, The Washington Times,

the World Bank, The National Oceanographic and Atmospheric Administration Marine Debris Program, the Chesapeake Bay Trust, and others. The cleanup also has received strong political support. "It pains me that we still find it acceptable to throw our trash on the ground, on our streets, and in our rivers," said District of Columbia Council Member Mary Cheh from her cleanup site at Rock Creek Park. But she was encouraged as well. "All of these children, students, families, civic groups, and faith-based organizations should be commended for doing their part in keeping Washington, D.C. and the Potomac River beautiful," she said.

Maryland Congressman Steny Hoyer, often found at the Alice Ferguson Foundation's Hard Bargain Farm during cleanups, noted before the event that "The Potomac is an invaluable resource, and this annual event not only helps clean the river, but also serves as a reminder of the positive difference we can make by working together."

Despite the huge amount of trash removed each year, it is just a fraction of trash polluting the basin's waterways, and those waterways are not an end-point for the trash, as much continues downstream toward the Chesapeake Bay and the ocean. According to the U.S. Commission on Ocean Policy, more than 80 percent of debris in our waterways washed from streets, down storm drains, and into creeks, rivers, bays and the ocean.

While the annual cleanup chips away at the symptoms of trash pollution, efforts were begun last year to address the problem at its source and reduce the amount of trash. The Trash-Free Potomac Watershed Initiative was begun in 2006 by the Alice Ferguson Foundation with the goal of making the Potomac watershed trash-free by 2013. The initiative seeks to free the watershed of trash by building on the cleanups to promote more recycling, enforce litter and dumping laws, determine the "trash hot spots" in the basin, seek new ideas for dealing with trash,

and provide the public with information and motivation about why reducing trash is so important.

Since the program's inception, 22 state and local governments and organizations have signed on to the "Trash Treaty," that focuses resources toward a cleaner river, including greater recycling, reducing the output of trash, and boosting public education campaigns.

During the past year, Alice Ferguson Foundation staff participated in the California and World Oceans Conference, gathering data and materials that demonstrate the connection between plastic debris that finds its way from land into the water and its impact on wildlife.

The second summit of the initiative is scheduled for mid-June at the World Bank in Washington, D.C. The goals for this year's event are to check on the status of commitments made last year and to push for better enforcement of anti-litter laws, and



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Volunteers remove trash along the Anacostia Park shoreline.

innovative ways to better involve business and industry in controlling trash.

More information on the cleanup and Trash-Free initiative can be found at: www.potomaccleanup.org.

Sailors Retracing History on New Water Trail

Some 400 years ago, British Captain John Smith landed in the New World, depositing a group of settlers at Jamestown, Va., before spending the next few years exploring the Chesapeake Bay and its tributaries, marking the beginning of European settlement.

In time for the anniversary, the federal government last year established the nation's first water trail, the Capt. John Smith Chesapeake National Historic Trail, administered by the National Park Service. Complementing the growing web of the Chesapeake Bay Gateways and Watertrails network, the Smith trail will provide significant new opportunities for education, recreation, and heritage tourism in the region. The trail joins more than 150 gateway sites and more than 1,500 miles of water trails in the region. The Potomac holds a significant part of the trail, which Smith explored to just upstream of Washington, D.C.

"We expect that this trail will foster efforts to protect and restore the region's historic and environmental assets as well as provide visitors with a means of envisioning John Smith's Chesapeake voyages and the environmental, historical, and cultural



Michael Wootton

The reproduction of the Smith shallop on an early trial.

richness of this national treasure," said Mary Bomar, National Park Service director. The park service will develop a management plan for the water trail, working in a broad partnership that includes the Conservation Fund and the Chesapeake Bay Foundation, and will seek extensive public input. Projects may include visitor center exhibits, land access improvements and connections to other trails, and "smart bouys" that can dispense historical

information when accessed by a cell phone.

To celebrate the establishment of the trail and the 400th anniversary of Smith's landing and exploration, a nonprofit educational organization, the Sultana Project, is sponsoring a new exploration. This summer, a crew of historians, naturalists, and educators will retrace Smith's path around the Chesapeake Bay. The group will travel the bay by rowing and sailing a 28-foot reproduction of the captain's shallop, a longboat that was carried in Smith's ship in several pieces and the modules reconstructed after the landing at Jamestown. On the water, the crew will live in the open boat much as Smith's crew did, although the shoreside amenities will be much better. The 121 days of voyaging will retrace Smith's 1608 summer voyage up the bay. At the more than 20 stops covering most of the bay's

tributaries, the crew will meet the public to tell the story of Smith's historic exploration. The shallop also is outfitted with scientific instruments to collect water quality data. Scientific and location data will be uploaded, and the results will be available on a web page.

The shallop was made from local timber, and is based on the historic data available about the boat. The crew of 12 is scheduled to cover about 1,200 miles from the start at Jamestown in mid-May, and returning there on September 8. Following Smith's route, the crew will make several stops on the Potomac. The Smith shallop is scheduled to arrive at Colonial Beach, Va., on June 16, to help the town celebrate its "Come Home to Colonial Beach" festival. June 21 will find the boat at the National Colonial Farm at Accokeek, Md. The shallop will continue up the river to spend June 23 and 24 at George Washington's Mount Vernon. An interactive exhibit tent will be stationed at the Potomac River wharf, where visitors can meet the crew. The crew will venture further up the Potomac where the boat will be hauled out to be displayed at the National Mall in Washington as a part of the summer Smithsonian Folklife Festival from June 27 to July 1. The shallop will travel downstream to Alexandria, Va., to be hosted by the Alexandria Seaport Foundation on July 2. The boat will then travel down the Potomac to continue north on the bay.

Each of the stops will be an opportunity for the public to view interactive displays, including the most interactive of all—the crew itself. The crew will never be more than a computer away from their supporters, who can follow the voyage through blogs and maps on the project website, www.johnsmith400.org.



Watching the River Flow

Flow of the Potomac River measured near Washington, D.C., was well below average in February, but bounced back to well above average in March, according to provisional data provided by the U.S. Geological Survey.

February river flow averaged about 4.9 billion gallons per day (bgd), or about 55 percent less than the long-term average. River flow ranged from a low of about 1.7 bgd on February 16, to a high of about 13.3 bgd on February 28. Water withdrawn for metropolitan area water supply averaged about 298 million gallons per day (mgd).

March rains brought the river back up. The March flow was about 21.1 billion gallons per day, 40.2 percent above average. Daily extremes ranged from a high of about 57.5 bgd on March 4, quickly falling to the low of about 10.7 bgd on March 11. Water withdrawn for water supply averaged about 259 mgd.

Williamsport Gets Silver for Going Green

The Town of Williamsport, Md., was acknowledged for its significant efforts to green Byron Memorial Park by receiving the silver PLANT award from Maryland Department of Natural Resources (DNR). People Loving and Nurturing Trees (PLANT) is a program designed to recognize communities for their efforts to plant and care for trees. "Williamsport received the award for their exemplary job of planting a riparian buffer and rain garden, with the cooperation of the town council, employees, and volunteers. Everything was done the best it could be, and with a smile," said Emilie Cooper, a watershed forester for Western Maryland Resource Conservation and Development (RC&D). The ICPRB was a partner, in the project.

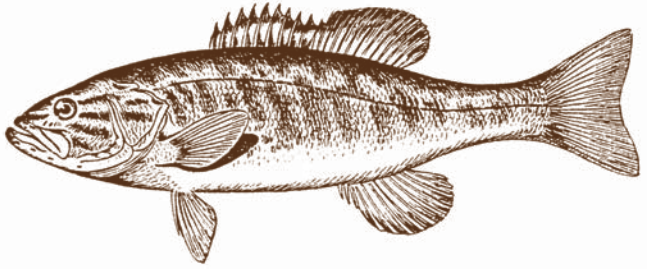
There are four PLANT award levels: Bronze, Silver, Gold, and Green. The PLANT awards are meant to encourage those schools, homeowner organizations, parks, cities, and towns that have taken the first step toward greening to continue their efforts and commitment to care for the urban canopy. The Silver level is awarded for projects that help build a foundation for future urban forestry programs and the Town of Williamsport plans to continue their tree-planting efforts and encourage homeowners to do the same.

The ICPRB received grant money from Chesapeake Bay Trust to fund the rain garden and riparian buffer in Byron

Memorial Park and partnered with Western Maryland Resource Conservation and Development foresters to plan and implement the project. In addition, ICPRB designed two signs to help visitors understand the concepts of rain gardens and riparian buffers and encourage them to bring the ideas home. The project helped reduce erosion and stormwater at the park.

The ICPRB and Western Maryland RC&D hope Williamsport's good example will show other communities that rain gardens and buffers are easy to plant and maintain. "It is what every community should strive for when planting trees in their urban area," said Cooper.

Fish Kills Continue on Shenandoah



After a bit of a break, unexplained fish kills are again being reported throughout the Shenandoah watershed. The early spring was quiet, but in April reports began coming in, noted Don Kain, of the Virginia Department of Environmental Quality (DEQ). Unexplained fish kills, primarily of smallmouth bass, have been occurring for several years.

Reports of small numbers of dead and dying fish on the Shenandoah mainstem and the North and South forks were received by DEQ. That agency, the state Department of Game and Inland Fisheries, and other members of the Shenandoah Fish Kill Task Force are assessing fish populations, particularly smallmouth bass and redbreast sunfish, the two species hardest hit. Small numbers of fish were found in two segments along the South Fork. Reports of fish kills on the North Fork also were received. A number of live fish with skin lesions or abnormal behavior were observed. Live fish were captured and sent to several research labs, where they will be evaluated for disease, viruses, and parasites, and major organs will be assessed. "We are still getting calls, but right now we are interested in getting back the results from this latest group of fish, primarily smallmouth bass and redbreast sunfish," Kain said.

The task force has been investigating the problem since 2004, and multiple factors are thought to be stressing the fish. A spring meeting helped focus the group on

three research priorities:

- *Continue and expand ongoing fish studies to address disease caused by bacteria, viruses, fungi, and chemicals;

- *Evaluate the characteristics of chemical or biological agents that may be causing the lesions and kills. Efforts would focus on agents used in Shenandoah Valley agricultural and industrial practices;

- *Expand ongoing water quality studies, including the interaction between ground and surface waters, water chemistry and quality during storm events, and monitoring pH and other regular sampling.

The Shenandoah basin also is the first area where intersex smallmouth bass were found--male fish containing eggs. Subsequent testing has found fish in the Potomac with intersex traits as well. No direct connection between the intersex conditions and the die-offs of stressed fish has been found. In addition to standard water quality testing and fish examinations, sensors have been placed at sites to find toxic or endocrine disrupting chemicals that may be in the water in minute amounts.

A major challenge for the task force is in obtaining the big picture of what is happening throughout the watershed and to observe events as they occur. To that end, the eyes of the valley's residents are essential in reporting fish kills or diseased fish. Distressed fish are usually found in eddies, and shallow areas out of the main current. Anyone with information is encouraged to call DEQ toll free at 1-800-592-5482.

Got (Really Old) Trees?

The ICPRB Section for Cooperative Water Supply Operations on the Potomac River (CO-OP) has long worked with the major Washington area water supply utilities to ensure that there is enough drinking water even during extreme droughts. The CO-OP also helps water suppliers by studying future water needs and how they can be met while protecting water quality and the river's ecology. A current focus of the staff is assessing the potential impacts of climate change and how severe droughts may become in the future. A part of this study is to examine the watershed's climate far back in history.

Staff are using tree-ring chronologies to study the basin's hydrology under long-term climate variability. Climatic conditions affect how trees grow, so the rings of very old trees can be examined to infer climatic conditions before weather records were kept. For example, a 300 year-old stand of trees can tell something about the weather over the last 300 years. This research will help evaluate the risk of severe droughts and the potential impacts of climate change. Much research has already been done in this area but we hope to expand it in the near future. One way to advance this research is to identify and study old trees.

Do you know of a very old stand of trees



somewhere in the Potomac Basin? We can study trees that are still standing (without harming them), but we can also study trees that have already died and fallen. In fact, some trees that have been used for this kind of research died and fell long ago, but were partially preserved in sediments, allowing them to be studied by scientists. We can even study lumber from old structures (e.g., barns) as long as it is local wood, old enough and large enough. If you know of a tree or a piece of lumber that might be useful, please contact us. We're interested in trees or timbers that are at least 200 years old, but preferably much older. If you think you know of candidate, please contact researcher Mark Lorie at (301) 984-1908 ext. 139, or email to mlorie@icprb.org.

Register Now for ICPRB's Summer River Ramble, June 7-10

Ever thought of meeting the river up close, joining others on a river trip filled with the lore of the river, meeting other river enthusiasts, and learning about the value of the resource? If you have thought about it but hesitated, ICPRB wants to help. We've taken most of the hassles out of a multi-day river trip, leaving our fellow paddlers to learn, delight in, and enjoy the river we love.

The summer Potomac River Ramble expedition will start at the National Conservation Training Center (NCTC) on June 7 in Shepherdstown, W.Va., and will end at Tarara Winery in Virginia, on June 10. During this canoe/kayak outing, participants will learn about some of the river's challenges, meet up with the Shenandoah Sojourners at Harpers Ferry, gain historical perspectives, and build stewardship and camaraderie.

We will camp at NCTC on the evening of June 6. There will be two days of beginner level whitewater boating with plenty of safety boaters stationed along the way. Beginners are welcome to join the Ramble.



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More details are posted on the ICPRB Ramble page at www.potomacriver.org/ramble.htm along with a registration form. Ramblers need to provide their own canoe or kayak, or can rent one from a list of outfitters listed on the website. Ramblers will enjoy each day as they paddle downriver. Camping gear will be moved by truck to each site, and meals are provided. Along the way, paddlers will stop to meet local residents and town officials, with presentations on the river's ecology, history, and environmental challenges.

For more information or to register, visit the web page or contact Adam Griggs at (301) 984-1908 ext. 103, or email agriggs@icprb.org.

Celebrate the Potomac

Wade Awhile

A growing number of events that link people to their home rivers happen every summer, and offer a fun way to learn more about how the health of our streams depends on all of us. Maryland's volunteer tributary teams hold a variety of public events, including wade-ins fashioned after Bernie Fowler's wade into the Patuxent to see at what depth he would lose sight of his white sneakers. Come celebrate your local river, and bring a pair of white sneakers to conduct water clarity tests! The events include food, exhibits, and other fun.

6/3 — Lower Potomac Tributary Team partnering with the Port Tobacco River Conservancy Wade-In at Chapel Point State Park, Chapel Point Road off Route 6 (near La Plata), Port Tobacco. Time TBA. Contact Mike Bilek at 410-260-8988 for more information.

6/24 — Lower Potomac Tributary Team's Wade-In at the Mirant Mid-Atlantic



Morgantown Power Plant (near the MD 301 Bridge) Morgantown, Charles County. 2-5 p.m. Contact Mike Bilek at 410-260-8988 for more information.

Total Immersion

The annual Potomac River Swim for the Environment will be held on June 2. Distance swimmers will ride a skipjack from Point Lookout State Park at the Potomac's mouth to the Virginia side, and swim the 8.5 miles back to the park. Swimmers will be arriving back at the park around noon. The public is invited to join a picnic celebration for the swimmers who are raising money for several groups, including ICPRB.



Potomac Basin

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**Editors: Curtis M. Dalpra
Jennifer K. Dotson**

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**E-Mail: info@icprb.org
Internet: <http://www.potomacriver.org>**

Joseph K. Hoffman, Executive Director

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