



C. Dalpra

Kevin Flynn of Friends of Rock Creek (FORCE) uses a canoe to access a "trash island" formed by a fallen tree.

Successful Cleanup Part of Larger Strategy

The spot on Rock Creek in Montgomery County, Md., looked daunting. A huge, old tree had lost its battle with age and stream bank erosion, and had fallen across the creek, creating a giant strainer filled with plastic and glass bottles, other trash, construction debris, a dead Canada goose, and so much more.

The cleanup site, organized by Friends of Rock Creek's Environment (FORCE), had about 30 volunteers, who would labor mightily into the afternoon, but leave plenty of trash behind for a later date. The site was just one of almost 300 across the Potomac basin scheduled for a spring cleaning as part of the 20th Annual Potomac Watershed Cleanup organized by the Alice Ferguson Foundation based in Accokeek, Md. The ICPRB's watershed

coordinator, Adam Griggs, helped organize seven sites, including five on Seneca Creek in Montgomery County.

The cleanup likely will set new records again, a positive as far as involving more people in active river stewardship, and a negative as far as the growing amounts of trash in need of disposal. The event has grown over the years, and although the majority of sites were tackled on April 5, about a third of the sites are cleaned on subsequent weekends. To date, with 215 of the 298 sites reporting, almost 6,000 volunteers removed about 145 tons of trash, including 1,052 tires, and more than 99,000 recyclable beverage containers. "I was most impressed by the dedication of the volunteers," said the Alice Ferguson Foundation's project coordinator Ginny Harris. "The weather forecast was bad, but it

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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didn't stop people from committing," she said. Harris is fascinated with the odd variety of waste that gets collected. The list is a long one, including a prosthetic leg, a surfboard, 10 bags of dog dung, a black bra and panties, construction debris, barrels, grocery carts, artificial Christmas trees, a portable toilet, fuel tanks, and other flotsam. Harris noted that several homes could be furnished with the array of trash picked up.

At the Rock Creek site, FORCE member Kevin Flynn led the group to the tree-and-trash dam across the creek, where volunteers attacked from both sides. Eventually, Flynn launched his canoe to assist in moving debris to the bank. Like many people who give their time, energy, and effort to the cleanup, Flynn's interest is powered by what the creek could become given a future of strong stewardship and a change in public behavior. As he navigated over a half-sunken branch, he talked about how he would like to see canoeing a regular part of the activity around Rock Creek. "I would like to see regular canoe tours down the creek," He said. "We could have a little boat house and people could travel through the park on the creek."

Flynn and the FORCE members efforts were bolstered by individuals who just turned up in the morning to help. The parkland that surrounds Rock Creek is very heavily used, and weekends see the adjacent streets and trails filled with bicyclists, walkers, and even mothers on in-line skates pushing strollers. A quick drive along the creek showed the result of a number of other cleanup sites. At some spots, groups could be found tackling small areas where a stream eddy had piled trash. By noontime, the shoulder of the road was dotted with plastic bags filled with trash, along with tires, a deformed bicycle wheel, and an old baby stroller.

Similar scenes occurred throughout the watershed. The Seneca Creek sites were lead by the Seneca Creek Watershed Partnership, a new group of about 40 people formed with the help of ICPRB's Griggs, who has aided the formation of several watershed groups in the basin. In addition, scout troops, individuals, and school students motivated both by the need to clean their neighborhood streams and to earn service credits labored under the sunny, cool skies. For many of the volunteers, it was their first stream cleanup.

As at Rock Creek, many were met with a mess that could not be dealt with in a few hours, and made plans to come back to get the rest in the near future. One site coordinator's report noted that "This site is very dirty, and will need lots more work. We probably didn't get more than 100 yards either way from the road."

While each cleanup attracts new volunteers, there are many veterans, and the sense of frustration grows as trash



ICPRB Outreach Coordinator Adam Griggs at the Gunners Creek cleanup site gets help from his father (left) in hauling tires. Griggs brother also volunteered. Many sites had whole families working the annual event.

continues to flow down the river. The Alice Ferguson Foundation, with many partners, has been working to help eliminate trash at its source, and is working to address the trash problem on several fronts in its Trash Free Potomac Watershed Initiative, which began in 2005.

A week before the cleanup began, area law enforcement agencies agreed to work toward stronger enforcement of anti-litter and dumping laws. The effort, coordinated by the foundation and the Washington Metropolitan Council of Governments, included the U.S. Park Police and police from the District of Columbia, Charles, Montgomery and Prince George's counties

spent on cleaning up and transporting litter and illegally dumped items can and should be used more effectively," he said. The National Park Service spent more than \$160,000 to remove litter and debris from the George Washington National Parkway—one of 14 parks in the region.

The increased focus on litter law enforcement is the latest facet of the initiative, the goal of which is to make the watershed trash-free by 2013. In addition to the annual cleanup, The Alice Ferguson Foundation wrote a trash treaty, to which 71 elected officials have signed on to address the trash and litter problem in the region. The agreement commits signatories to support and implement regional strategies to reduce trash by increasing recycling, education and awareness of the problem, and reconvening annually to discuss and elevate measures and actions addressing trash reduction.

The initiative partners also are developing a Regional Education and Awareness Campaign for Trash that will identify target audiences, create a unified message and develop ways to deliver it, and is working with some facilities to develop a trash-free program. The initiative will use surveys to further develop and implement the campaign. The effort also is benefitting from a volunteer-based Visible Trash Survey to help identify trouble spots and the type of trash being discarded.

These and other projects and interests will be taken up at the initiative's third annual Trash Free Potomac Watershed Summit to be held at the World Bank in Washington, D.C. on Tuesday, June 17. Included for discussion are business models that could establish the economic value of trash reduction, and an update on the trash Total Daily Maximum Load plan being produced for the Anacostia watershed. For more information, visit the Alice Ferguson Foundation's website at www.potomaccleanup.org.



Cleaning up along Rock Creek.
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and the cities of Rockville and Greenbelt in Maryland, and Virginia's Alexandria, Arlington, Fairfax, and Prince William counties. During the week, the agencies gave additional focus to the enforcement of existing litter laws as a means to both educate and to positively change behavior.

"We're here to make an appeal for greater stewardship of our parklands and communities," said Joseph Lawler, regional director of the National Park Service's National Capital Region. "Taxpayer money

Teachers Honored for Their Stewardship

The Potomac River was flowing quickly past Fletcher's Boat House in Washington, D.C., rain-swollen and muddy. The chilly, rainy Monday morning wouldn't keep the shad from being roasted by the fire, or the shad roe from being fried on the camp stove. It was a day to celebrate the success of the American shad restoration program coordinated by ICPRB, and to honor some of the partners who helped make it so.

This year's Potomac Steward Awards were given to six school teachers who represented the more than 100 teachers who have participated in the cooperative shad program, which has been credited as a major factor in the resurgence of the fish in the Potomac.

The teachers, along with some of their students and family, had come to receive their awards during the National Casting Call, an annual event that highlights the ecological and economic benefits and importance of recreational fishing and partnership efforts to restore and protect fish habitat.

The teachers are part of a growing coalition of schools that raise shad fry in their classrooms for release into the Potomac. The school's efforts have been coordinated by ICPRB partners Living Classrooms Foundation and the Chesapeake Bay Foundation, which during 13 years has involved more than 50 schools and thousands of students. In addition to science, participating teachers incorporate raising the shad fry into many other curricula, including math, writing and history, and have created such strong bonds that some students return to their schools after graduation to see how the program is faring.

"Restoring the American shad to the Potomac is a very important effort in its own right, and the added value of involving students with the Potomac's natural resources has made this an even more important, fascinating, and fulfilling effort," said ICPRB Director of Living Resources Jim Cummins, who manages the project. The project has addressed a problem-like many in the Potomac and bay, that resulted from a long decline due to many factors. "Populations of American shad have been a remnant of their historical numbers for decades throughout Chesapeake Bay and the Atlantic Coast. The Potomac is now leading a resurgence of the species that we hope will happen from Florida to the Bay of Fundy."



Jim Cummins prepares shad for planking in the rain as an expectant crowd looks on.
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The honorees represent schools in Maryland, Virginia, and Washington, D.C. They include Melanie Fields of Sidwell Friends School and David Hilmy of LaSalle Elementary School in the District; Sandi Geddes, Westbrook Elementary School and Joyce Bailey, Julius West Middle School/ Poolesville Senior High School in Maryland; and Eileen Hart, Lake Braddock Middle School, and Sean Duffy, Waples Elementary School in Virginia. Three of the six educators have been involved since the programs inception in 1996. Support for the school effort is provided by Maryland's Chesapeake Bay Trust, the Virginia Chesapeake Bay Restoration Fund, and Mirant Mid-Atlantic.

The ceremony took place on the second



Sandi Geddes of Westbrook Elementary School in Montgomery County, Md., receives her award from ICPRB Virginia Commissioner Scott Kudlas as some of her students look on. Geddes and her class were present at the first shad release.
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day of the April 27-28 National Casting Call, sponsored by the American Fly Fishing Trade Association and hosted by the National Park Service and Guest Services, Inc. Over its two days, the event focuses on engaging the public and federal decision-makers on the importance of



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Families try their luck at the fishing clinic.

fisheries and their conservation as important to the public's quality of life.

In what has become a tradition at the event, Cummins and Virginia waterman Louis Harley arrived early to provide a true taste of what the shad program is about. The two built a low fire near the shore, split shad that had been captured for egg and milt harvest, and nailed them to planks that were propped up beside the fire to slow roast after a brushing with Harley's special marinade. Shad roe taken from the fish were pan fried and offered to all who wanted a taste. Considered a delicacy, some of the students and others agreed, while others weren't so sure.

Teachers and their students took in the many exhibits, and cheered their teachers on at the ceremony. The teachers each noted the value of the shad project, and how the program continues to open the eyes of the students by relating it to history, culture, the mathematics of fishery science, and ecology in a hands-on way.

The day ended with an overview of the National Fish Habitat Action Plan progress. The program, which marshals government and private resources to conservation

efforts across the country. In the Potomac watershed, a partnership is working on conservation and restoration of native trout habitat. The day also saw the christening of a drift boat built by veterans from Walter Reed Army Hospital under Project Healing Waters, which uses angling activities in the recovery and rehabilitation of wounded soldiers.

The event's first day featured a kids fishing clinic, which saw a constant stream of young (and many first-time) anglers. To give the kids a fighting chance, ICPRB's Cummins assisted the group in putting some nets across the adjacent C&O Canal, enclosing a large area where kids could throw a line to the sunfish that had been stocked there the day before. The hungry fish cooperated, resulting in beaming kids thrilled with catching their first fish. Both days of the event provided people with a chance to learn about fisheries conservation from a variety of government agencies and organizations. Attendees could learn to cast with a flyrod, tie a fly, visit a collection of local and exotic reptiles and bugs, see a snakehead and other fish up close, learn about trout and other fish, and review some of the important conservation efforts that are protecting fish, habitat, and the opportunity for people to enrich their lives through fishing. The National Park Service staff also engaged kids through their Junior Ranger program.

"This event provides the greatest opportunity to connect the important message of fisheries conservation to the individuals that have the most say in how we protect our fisheries and watersheds," said Alan Gnann, chairman of the American Fly Fishing Trade Association.

The ICPRB congratulates the six teachers who this year became Potomac Stewards, and looks forward to continuing to help area teachers bring a part of the Potomac into their classrooms.

Researchers, Anglers Wait for Fish Kills

An unfortunate rite of spring is being played out again on the Shenandoah River basin and in the neighboring James and Gunpowder River watersheds, where scientists and anglers are looking for signs of the mysterious fish kills that have plagued the area since 2004 (see May/June 2007 *Reporter*).

Despite intense research, no cause for the kills, which primarily affect adult smallmouth bass and sunfish, has been found. In the first year, fisheries biologists estimated that a segment of the Shenandoah had lost about 80 percent of the adult smallmouth bass population. Each



D. Kain/Va. DEQ
A Shenandoah smallmouth bass with a tail lesion typical of the problem.

spring, when water temperatures rise to about 60 degrees Fahrenheit, fish are found slowly dying, their bodies marked by large lesions. The kills and sightings of diseased fish fall off when water temperatures rise to about 75 degrees.

Already this spring several reports of fish kills have been documented, but fewer than in 2007. Researchers could not venture a guess about how things will turn out this season.

A lot of intensive research has managed only to rule out some possible causes of the problem, and has not established any real link between the kills and a high rate of male fish found to be growing eggs in their testes, a condition known as intersex.

The Virginia Department of Game and Inland Fisheries recently released findings from research conducted in 2007. The Virginia Department of Environmental Quality (DEQ) monitored weekly for conventional pollutants during the kill season, and all results were within normal ranges. Water quality parameters were monitored 15-minute intervals during the season, including pH, temperature, and dissolved oxygen, and none of the parameters appeared unusual when compared with other streams not experiencing problems.

Passive samplers, which remain in the water for six to eight weeks were deployed to reveal possible organic pollutants that would not be detected by other means. Preliminary results showed a range of chemicals, including polychlorinated biphenyls (PCBs), pesticides, and pharmaceutical compounds, but at levels

found in other impacted streams that have not experienced the fish kills. No individual compounds were found at a concentration that could explain the fish kills.

The U.S. Geological Survey's Leetown, W.Va., Fish Health Research Laboratory conducted bacterial assessments of fish, and a number of common bacteria were found. From sites where fish kills had occurred, scientists found unexpectedly high numbers of two pathogens that are capable of being a cause of disease in otherwise healthy fish. A follow-up study is underway.

The laboratory also examined fish with high parasite loads. The parasites could weaken fish and increase their susceptibility to disease. It is not known whether the parasites are causing a problem, or if the fish are being stricken by parasites due to a lack of resistance brought on by other stressors.

According to DEQ, these findings seem to rule out individual water quality constituents as a primary cause, as well as the more-likely viruses that affect fish. Further study will focus on the effects of combinations of water quality constituents, bacterial infections, fish health (blood and tissue analysis, parasites, hormones and organ function), whether intersex is related to the kills, and if other aquatic communities are having problems short of die-offs.

Invasive Species Update

The weather is warming, and the basin's waterways are seeing the return of anglers and boaters to the river. These recreationists can help natural resource managers by being aware of the importance of what they see on or in the river.

Water Lettuce

This invasive plant, native to the tropics, was first seen in the tidal Potomac in 2007 (see September/October 2007 *Reporter*). The plant is commonly found in ornamental ponds and is sold in pond stores. Left unchecked in natural systems, the plant, which floats on the water's surface, can very quickly form dense, impenetrable mats that can shade out native submerged vegetation, lower dissolved oxygen levels by covering the water's surface, impede boating and fishing, and can create breeding grounds for mosquitoes. The plants themselves do not survive in cooler winter water, but it is unknown whether its seeds, which fall to the river bottom, can survive the winter to repopulate in the next season.

Last summer, after the plant was spotted in Mattawoman Creek, other stands of



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Its bright green color, floating habit, and ability to quickly form thick mats above the water surface make water lettuce easy to spot.

plants were found in the river about 10 miles up- and downstream.

People who find the plant on the river should remove it and dispose of it safely on land. The U.S. Geological Survey is leading a coalition of agencies that will actively monitor for the plant. The public also can report sightings of the plant to Mark Lewandowski of the Maryland Department

of Natural Resources (DNR) at (410) 260-8634, or email mlewandowski@dnr.state.md.us.

The DNR also has applied for funding to control water lettuce and water chestnut, another invasive plant that has been a problem for years. Alternatively, river watchers can call ICPRB at (301) 984-1908 ext 107 with reports that will be forwarded.

While researchers wait to see if water lettuce has successfully overwintered or will be accidentally reintroduced to the river this summer, there is something that all who care about the Potomac



M. Roberts-Satinsky

This large snakehead found the Northwest Branch of the Anacostia to its liking.



Watching the River Flow

Flow of the Potomac River measured near Washington, D.C. remained below normal during February and March 2008, according to provisional data from the U.S. Geological Survey.

In February, average flow of the Potomac was about 8.9 billion gallons per day (bgd), about 20.7 percent less than the long-term average of 11.2 bgd. Daily extremes during the month ranged from a low of nearly 4.8 bgd on February 1, reaching its monthly high of about 13.3 bgd on February 9. Water taken from the river for metropolitan water supply averaged about 300 million gallons per day (mgd).

March brought some relief. The Potomac River flow for the month was about 13.5 bgd, or about 11.8 percent less than the March average of about 15.3 bgd. The river's flow ranged from a low of about 5.6 bgd on March 4, and after precipitation, quickly reached the daily high for the month of about 46.4 bgd on March 7. Withdrawals for water supply averaged about 200 mgd in January.

The ICPRB Section for Cooperative Water Supply on the Potomac River (CO-OP) issued its first water supply outlook of the season in April, which noted that the probability of a release of stored water to augment drinking supplies this year is currently slightly below normal.

can do: Please remember to never place any plant or animal purchased at a store into the river, and work to raise the awareness of friends and neighbors to the dangers of introducing non-native species in our river.

Snakeheads

The non-native fish from Asia has greatly increased its population and range during the last several years. The population was centered in the Dogue Creek area on the Virginia side of the Potomac, but was being found across the river on the Maryland side as well. The species seems to be enjoying our river system, and a large individual was recently found far upstream in the Anacostia's Northwest Branch in Hyattsville, Md.. The fish was taken by scientists using an electro-shocking device who were surveying the stream for river herring. The snakehead was among the largest taken from the river, a whopping 28 inches. The fish are said to reach a maximum of about 33 inches. Scientists estimate its age to be about six years based on size. It is not known whether the species will impact river herring populations.

Blue Catfish

These very large catfish have been calling the river home for some years, but have not rapidly populated the river the way snakeheads have. Yet they are a common fish, and an angling club focused on catfish has helped to publicize their presence. In March, a new state record blue catfish was caught in the Potomac River near Fort Washington. The 67.1-pound fish required both fishermen to bring the fish over the side of the boat. The new record fish was transported to the large aquarium at Bass Pro Shops at Arundel Mills Mall in Hanover, Md. The fish can now be viewed by the public, joining the previous state record blue catfish, a 65.5-pound specimen that came from the same area of the Potomac River in 2006. It makes us wonder if the blue catfish have a taste for snakeheads!

Potomac River Ramble Set for June 2008

Need a break from the rigors of work and commutes? Take the weekend off and join the Interstate Commission on the Potomac River Basin for a fantastic journey along the Potomac River from Piscataway Creek, Md., to Mason Neck State Park on the Virginia shore. The Potomac River Ramble begins on the evening of June 19 with a campout at the National Colonial Farm in Accokeek,

Md., and ends with a shuttle back to the starting point in late afternoon on Sunday, June 22.

Beginning Friday morning, Ramblers will canoe or kayak their way down the river, stopping along the way for stewardship activities and educational programs, including programs at Ft. Washington, Gunston Cove, and the Accokeek Foundation. The tidal Potomac offers smooth, flat water, perfect for bird watching, historical programs, and lazy paddling. Beginners and experienced boaters are welcome.

Ramblers are responsible for their own tents, canoe or kayak, and personal gear. Canoes and kayaks can be rented from many outfitters, including those listed on our website, www.potomacriver.org. The fee, \$135 for adults and \$105 for children, includes water, food, portable toilets, camping fees, shuttle, and expert guide service.

For more information and to download a registration form, visit www.potomacriver.org or contact Adam Griggs at (301) 984-1908 x 103 or email agriggs@icprb.org.

ICPRB Business Meeting in Western Maryland

The ICPRB will hold its quarterly business meeting on June 9-10, 2008 at the Lodge at Rocky Gap State Park near Cumberland, Md. The first day of the meeting will feature a field trip to see area conservation projects, stream gages, and a visit to Green Ridge State Forest. The business meeting follows on June 10, where ICPRB commissioners will hear project and budget reports. The meeting is open to the public. To arrange attendance, please contact Bo Park at (301) 984-1908, ext. 101, or email bpark@icprb.org.

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U.S. Postage
PAID
Rockville, MD
Permit No. 800



Potomac Basin

REPORTER

Editors: Curtis M. Dalpra
Jennifer D. Willoughby

Published six times a year by the Interstate Commission on the Potomac River Basin, 51 Monroe St., Suite PE-08, Rockville, MD 20850. (301) 984-1908.

(ISSN 1072-8627)

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This publication does not necessarily reflect official Commission policies. Funds for the *Reporter* are provided by the U.S. Environmental Protection Agency and the signatory bodies to ICPRB: District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia.

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51 Monroe St., Suite PE-08
Rockville, MD 20850

Address Service Requested

Printed on recycled paper with soy-based ink

March/April 2008