

BRANCHING OUT

WALKER NATURE EDUCATION CENTER

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Growing with Reston's Streams

By Mandy Nicholson

When I was in second grade at Terraset Elementary School, I received a microscope for my birthday. I used that glorified magnifying glass in my first science fair project. I loved to look at things on slides and catch specimens to study. In fact, I wish I still had that wonderful contraption. For my project, I studied the stream by my house. I lived in the Generation Cluster. My father and I spent many hours exploring the woods and streambeds, searching for wildlife together. During my study, Dad and I found fish in little schools, salamanders under rocks, and frogs on logs! I collected water samples and eagerly plopped down on the grassy banks to look at them under my microscope. I found lots of tiny bugs. There were so many different types I couldn't wait to see what else I could find.

Eighteen years later, when I became the Naturalist for the Walker Nature Education Center, I learned that all of those little bugs were the benthic macroinvertebrates that are monitored to indicate the health of streams. Benthic organisms live on the bottom of the stream. They are "macro" because they can be seen with the unaided eye, and they are invertebrates because they do not have backbones. In fact, they don't



"Reston was the perfect choice for restoration work..."

have any bones, only an external exoskeleton.

With the help of many dedicated volunteers, Reston Association conducts seasonal stream monitoring in twelve locations throughout Reston. A long net is set into the stream at a designated monitoring point. Next, the upstream rocks are shuffled around, often by an amusing dance of sorts. The net collects everything that has been kicked up into the water. Then it's time for sorting. All of the macroinvertebrates in the net are identified with the help of magnifying glasses and sometimes even an adult version of the microscope that I so loved in my youth. This collection can be repeated up to four times per monitoring date.

Because I work at the nature center, I am assigned to monitor the lower end of

Snakeden Branch which runs along the northern end of the property. My first training session with RA's Watershed Supervisor, Nicki Foremsky, and Brian Petty, Watershed Specialist, gave me some unexpected results. After four nets, we had counted only 115 bugs; 200 are needed for the sample to be statistically significant. I learned that these disappointing results are not atypical of Reston's streams. According to the Virginia Save Our Streams protocol, our score translated to an "unacceptable" ecological condition ranking for the stream.

However, I was relieved to learn that a Reston-wide stream restoration project was imminent. This project had its groundbreaking on February 12. Evidently while I was growing up, Reston's streams were growing degraded. Years of development had led to increased amounts of impervious surfaces such as roof tops, roadways and parking lots. The runoff from these areas

Nature Notes

By Sharon Gurtz

APRIL:

- Canada geese lay eggs.
- Spring hawk and warbler migration begins.
- Jack-in-the-pulpit, mayapple and spring beauties bloom.
- Spring peepers, wood frogs and American toads are calling.

MAY:

- Columbine, wood poppy and violets bloom.
- First bluebird broods fledge.
- Oak catkins cover the ground.
- Bull frogs begin breeding.

JUNE:

- Fireflies are active.
- Tiger swallowtail, viceroy and wood nymph butterflies can be seen.
- Red bat young are born.
- American goldfinch nest.

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had been channeled to our stream valleys where it causes severe erosion of the stream banks. As a child, I could walk right up to the water's edge to take my samples. As an adult, I find myself climbing down steep stream banks, four and five feet high, and walking across sand bars to reach the water's edge. I see the tangle of exposed tree roots, and the large toppled trees that could no longer hold their ground. Every 5-15 years (depending on the body of water and the severity of storms in preceding years), Reston Association has had to dredge the lakes to remove the massive amounts of sediment that has eroded and flowed downstream.

The goal of the new stream project is to restore more natural shapes to the streams, repair eroded areas, reconnect the streams to their floodplains, and bring back stream stability. In addition to the ecological value of this work, there is tremendous economic value. All of the work is being done at no cost to Reston residents. A stream restoration mitigation bank was created by the Northern Virginia Stream Restoration Bank, a subsidiary of Wetland Studies

and Solutions, Inc. In Virginia, developers who impact streams under Corps of Engineers' permits, and who cannot restore them on their sites, buy credits from a stream mitigation bank which uses the funds to restore streams elsewhere in the state. In Northern Virginia, Reston was the perfect choice for restoration work because Reston Association owns most of the stream valley property. Working with a single property owner is highly desirable and expedites the project's success. Furthermore, Reston Association staff, working with consultants and volunteers, had already developed a Board approved Watershed Master Plan that identified problems and proposed solutions for Reston's streams.

In addition to the free restoration work that will take place over the next 5-10 years, the Northern Virginia Stream Restoration Bank also pays fees to Reston Association and to Friends of Reston. Chuck Veatch, a long standing director on the Friends' Board, was instrumental in bringing the parties together to set up the stream mitigation bank in Reston. The fees are calculated on a linear foot of stream basis. Friends of Reston is using this income to help fund the Nature

House so that current and future generations of Restonians can learn how to protect and care for the watershed. Wetland Studies and Solutions will monitor the streams for ten years after the restoration work is completed to ensure that the engineering is sound and that all disturbed areas have been successfully revegetated with native plants.

Over the next few years, Reston will have restored streams that fathers and daughters and mothers and sons can explore the way some of us did when we were kids. The lakes will not have to be dredged as often. And we will open the doors of Nature House to school groups and summer campers, singles and seniors who are eager to learn about Reston's natural resources and how we care for them as a community.

For more information on the stream restoration project, see www.reston.org or contact Nicki Foremsky at 703-435-6560 or nicki@reston.org. For information on how you can become a stream monitor, contact RA's Volunteer Specialist, Ha Brock, at 703-435-7986 or habrock@reston.org

Free Boats to a Good Home

Sometimes Reston Association staff find abandoned boats around Reston's lakes. Our first concern is to find the owners. If we cannot, then we hold the boat for six months. If no one claims the boat, then they become ours to give away. We find canoes, kayaks, paddleboats, and a few miscellaneous boats throughout the year. Currently, we have a few paddleboats ready to go to a good home. A few canoes and kayaks may become available in the months ahead. If you are interested, please email Brian Petty at bpetty@reston.org or call 703-435-6535.



REMINDER: All boats on the lake should have a Reston Association boat sticker on them, including canoes and kayaks. RA members may obtain a free sticker by filling out a general access agreement. Permanently moored boats require a special permit and mooring fees apply. Contact RA Member Services at 703-435-6530 or email melissa@reston.org.

FREE BRUSH CHIPPING!

Reston Association's brush chipping program offers you a place to bring your brush for chipping at no charge. According to RA Guidelines, homeowners may not dump brush from their yards onto RA property. Please drop off your brush at the locations listed below, and RA crews will chip your brush for use on RA open space.

Acceptable: Branches less than 4 inches in diameter.

Not Acceptable: Grass clippings, dirt, trash, paper, vines, thorns or other debris. No contractors.

DATES & LOCATIONS:

April 19-20
Lake Audubon Pool
2070 Twin Branches Rd.

May 17-18
RA Central Services Facility
12250 Sunset Hills Rd.

June 21-22
Lake Audubon Pool
2070 Twin Branches Rd.

Drop off brush at any time on the dates listed above.



Ask Earl

Do you have a nature question?

Email Earl the Squirrel at earlthesquirrel@reston.org. Selected questions may appear in future issues of *Branching Out*.

Reston Nature On-Line

Join the Walker Nature Education Center's electronic mailing list for upcoming events, wildlife sightings, nature news, eco-tips and more! You'll also receive *Branching Out* electronically and help save trees.

E-mail Earl the Squirrel, the Nature Center's mascot to subscribe: earlthesquirrel@reston.org