Environmental Science Award presented for work at the Black Fork Wetlands Preserve

The ongoing work of the Ashland University Environmental Science Program at the Black Fork Wetlands Preserve was praised at the Richland County Soil and Water Conservation District (RCSWCD) annual meeting held September 2, 2010. The award cited “Leadership, Dedication and Protection” and was based on the program’s work at the Black Fork Wetlands Preserve and the Black Fork Wetlands Environmental Studies Center. The program was cited for including public access to this important natural area and for contributing significantly to watershed conservation and habitat preservation.

Dr. Soren Brauner (center) and Dr. Dick Stoffer (left), accepted the award from Charles Winger (right), representing the board of supervisors for the RCSWCD. They spoke to the group about the mission of the Black Fork Wetlands Preserve and answered questions from the audience. Dr. Brauner was director of the Environmental Science Program from 1999 to 2010, and Dr. Dick Stoffer serves as preserve manager for the five Ashland University preserves.

The RCSWCD exists to help residents “protect and improve” the natural resources of the area. They specialize in networking, education, planning and technical help. Conservation Districts operate in each county in Ohio and most counties across the nation. Ohio districts operate within the Ohio Department of Natural Resources and receive State funding. All districts are linked with the National Association of Conservation Districts.

--Patty Saunders

The BFWESC newsletter is trying to expand its mailing list! If you or someone you know wishes to be sent an electronic copy (1-2 per year), please send a quick note with your name and email address to Patty Saunders at psaunder@ashland.edu

If you prefer a paper copy, please let Patty Saunders know by email or by phone (419.289.5252).
**K-12 Activity Center: Tree Texture**

Process Skill(s): observation, analysis, inference and visual discrimination

Time needed: 30 minutes
Suggested grade range: 3-6

In a nutshell: Students locate a tree by only using a bark rubbing of the trunk

What you will need: paper (legal size), crayons, masking tape

The details:
You need to have a location that has as many trees as you have students. The trees should be in the same general area so that you can easily monitor the activity. Place a strip of masking tape on the bark of the trees you want to use. Each child takes a piece of paper and a crayon (with the paper removed), and heads for a tree marked with tape. The paper should be placed at about chin height and a bark rubbing should be made on the same side as the tape. After completion, the paper should be turned over and a secret password should be recorded (e.g. name of a pet, or your mother's first name). It's important that kids don't just put their own names on the back, since they will tend to remember where each person had been, making the task too easy.

When everyone is finished, you should shuffle the papers well and give one to every child. The task is to look at the rubbing and then try to guess which tree it came from. When students think they have found a match, they should look on the back and call out the identifier to find out if they were correct. As each tree is correctly identified, the tape should be removed - this makes the task a little easier for those who are still looking. If you have a small group, or to make the task more challenging, mark more trees or items than there are students.

Making the most of it:
One third-grade teacher liked the concept of exploring textures outdoors, but just did not have enough trees conveniently located on the school grounds. Instead of exploring just tree bark texture, she expanded the activity to include all types of surfaces. She placed tape on a variety of items like brick, pavement, boulders, wood, metal, glass, playground equipment, etc. Students were asked to do the rubbings near the location of the tape (a hands-length away) to make it easier to do the match ups. The variety of textures was amazing and kids were asking to do extra rubbings just to see what they might find.

Another variation of this activity is to take a sheet of paper and fold it into fourths or eighths. Students then take their crayons and do rubbings of objects they find in the vicinity - one rubbing in each square. They can either label the squares and share their product with the group, or the unlabeled sheets can be exchanged and kids can try to locate the objects.

--Herbert W. Broda, Ashland University College of Education


**K-12 Activity Center: Nature's Contours**

Process Skills: observation (structure, form, symmetry and pattern)

Suggested grade range: 3-6

What you will need: paper (letter size), pencil

Look at a leaf that is smaller than the palm of your hand. Start at the tip of the leaf and move your eyes around it as though you were a tiny creature crawling over the very edge of the leaf. Now, with your pencil and paper, draw a continuous line to show your leaf's outline. Don't lift your pencil and try not to look at your paper until your eyes have traced all around the edge.

Later, repeat this activity with your hand, a stick, a rock, a beetle, etc.

--Janet Ellsworth, Coordinating teacher with the Mansfield City Schools' Outdoor Education Explorations Program & Springmill fourth-grade staff, Mansfield City Schools

Previous newsletters are archived at:
www.ashland.edu/departments/environmental-science/resources
Sandhill Cranes at the Black Fork Wetlands Preserve

Sandhill cranes (*Grus canadensis*) are a rare bird in Ohio, but they have been showing something of a population surge in recent years. Ohio Dept. of Natural Resources (ODNR) Division of Wildlife biologists estimate that there are approximately 25 nesting pairs in Ohio. In the last few years, Dr. Dick Stoffer and several other community members have reported first one, then two nesting pairs in or very near the Black Fork Wetlands Preserve! This would suggest that their population is expanding in Ohio, probably from a "hotspot" such as the successful population based at Funk Bottoms Wildlife Area in Wayne Co.

Four Sandhill cranes foraging in a field adjacent to the Black Fork Wetlands Preserve in June 2010. The two smaller birds are "colts" and the two larger birds are their parents. This group walked along the edge of this field, head down, as they looked for insects and frogs to eat.

(Photo credit: Dick Stoffer)

Sandhill cranes are large heron-like birds. They are tall and have long legs and a long bill. When they fly, they keep their neck straight (a heron flies with its neck tucked), and the feathers at the outer edges of their wings separate and look like long spread-out fingers. They have bright red foreheads as adults, but generally their plumage looks grey or light brown. They nest in vegetation near the ground and close to the water, where they like to forage. They will find their food in wetlands or fields; they like to eat insects, small field rodents, and aquatic plants and animals.

Mating pairs stay together for life and are faithful to a particular nesting site. A study in 2008 suggested that cranes in the Ohio population may be flying to southern Indiana before migrating to Tennessee or Florida each winter along with populations from other regions, but ODNR studies are still in progress. Parent birds stay together for life and help train their young, known as "colts," for about one year. Once colts have matured, they will look for mates and nesting sites of their own. Since these large birds need large areas to sustain their families, young adults in a growing population often have to find new areas that suit their needs, such as the Black Fork Wetlands Preserve.

--Patty Saunders

For additional information about sandhill cranes in Ohio, see:
~ Google Search: "ODNR sandhill crane"
The Ashland University Environmental Science Lecture Series, 2010-11

This year's series is focusing on a theme of "Invasive Species."

Invasive species are introduced to a region, on purpose or by accident. In order to be "invasive," a new species must be disruptive to the growth of native species and the function of native ecosystems. This can happen if a non-native species can reproduce very quickly and if native predators and diseases are not effective at limiting population growth. Familiar examples of invasive species are zebra mussels and garlic mustard, but there are many more.

Who cares? Invasive species cost billions of dollars as they impact the productivity of fisheries, agriculture and timber businesses. The diversity and function of natural ecosystems is also compromised, sometimes to the point of extinction or near-extinction of formerly dominant species.

The first lectures of this year's series are:

**Sept. 30**-- Dr. Don Cipollini, Wright State University, Dayton, OH-- "Garlic mustard: Impacts, mechanisms of invasion, and hope for control"

**Nov. 18**-- Dr. Mary Gardiner, OSU-Ohio Agriculture Research and Development Center, Wooster, OH-- "Invasive plants, aphids, and lady beetles: an exotic food web impacting Ohio's agricultural landscapes"

All environmental science lectures are on Thursdays at 7:30 p.m. in the Hawkins-Conard Student Center Auditorium. The lectures are free and open to the public.

You can check for current information and view lectures on-line at:

www.ashland.edu/programs/environmental-science/lecture-series

Black Fork Wetlands Birdlist: Five Years Later

Dr. Dick Stoffer has been getting to know the bird community of the Black Fork Wetlands Preserve for many years now. Dr. Stoffer identifies birds by sight and/or by song. His list of bird species on the preserve was included in the first BFWESC newsletter (Fall 2005) and a copy of that list has been posted at the kiosk by the Rt. 42 parking area since the boardwalk opened to the public. We meet many birders out on the boardwalk. Occasional hikes with community groups have provided opportunities to explore the interior of the preserve.

It is time to update the bird list. Since 2005, the number of species has just about doubled! Several species that had been spotted at the preserve by 2005 are now known to be breeding there (see Sandhill Cranes, p.4). The current list is too big for this newsletter, so we are posting it at:

[www.ashland.edu/students/departments/environmental-science/resources](http://www.ashland.edu/students/departments/environmental-science/resources)

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