

Friends of the Russell Fork

ISSUE 4

SPRING 2009

INSIDE THIS ISSUE:

American Chestnut 2

Envirothon 2

Water Sampling at
Haysi High School 2

Big Sandy Textbook 3

Earthworms 3

Thanks to JWT Well
Services 3

ACCWT 4

County Students Reforest Splashdam Mine Land

Dickenson County high school students implemented a new technique in mine reclamation and learned about topics in forestry on a warm winter day they spent outdoors at Splashdam.

The Friends of the Russell Fork coordinated a reforestation effort that brought students from Haysi, Ervinton and Clintwood High Schools together to increase the natural beauty and economic value of an experimental piece of abandoned mine land. On March 5th, about 110 students joined state and federal agency representatives and community volunteers to plant 1900 hardwood seedlings on two acres of land. The seedlings included white oak, green ash, persimmon, river birch, silky dogwood, redbud, and the American chestnut. If the trees prosper, local mine land could see other reforestation projects in the coming years.



A planting crew at work on the surface mine.

The students were led in crews by employees of the VA Department of Forestry, the VA Department of Mines, Minerals and Energy, and the Office of Surface Mining. They spent half the day planting trees and the other half attending 4 lectures given by forestry experts.

The FORF teamed up with the Appalachian Regional Reforestation Initiative as well as landowner The Forestland Group to tackle the project. ARRI is a coalition that advocates planting more high-value hardwoods on coal-mined land to return the land to its former state and to increase the future value of the land for logging or recreation.

Before the land could be planted the compacted soil had to be ripped down to a depth of four feet so the seedlings' roots could survive.



Dr. Bob Paris of TACF supervises the planting of an American chestnut by students in his lecture group.

JWT Well Services of Nora sent a dozer and an excavator to the property for this purpose.

The 4 lectures that the students attended were each 20 minutes long. OSM/ARRI forester Dr. Patrick Angel, who helped plan the event, spoke about surface mine reforestation and soil science. Lois Boggs, wildlife biologist for the US Forest Service, gave a talk on forest succession patterns. Craig Kaderavek, Director of Forest Operations for the Forestland Group, lectured on silviculture. And Dr. Bob Paris, research geneticist for The American Chestnut Foundation, traveled from Beckley, WV to speak about disease-resistant chestnuts.

The FORF would like to express our gratitude to our partners for your commitment to the success of this project. And to the students who participated: we appreciate your hard work and we hope you are as proud as we are of what you were able to accomplish.



Dr. Patrick Angel of the Office of Surface Mining and ARRI explains how to analyze a soil sample.

DID YOU KNOW?

- The Russell Fork watershed covers nearly 140,000 acres in Dickenson and Buchanan Counties.
- The primary contaminants in our watershed arise from sedimentation, straight pipe pollution, acid mine drainage and illegal dumping.
- A pick-up day for household hazardous waste is scheduled in Dickenson County for Saturday, April 18th.
- The Friends of the Russell Fork watershed group emails monthly results of bacteria monitoring of local streams to anyone who is interested. If you'd like to receive these emails please contact us.
- Four miles of the Russell Fork River in the state of Virginia are listed as impaired due to PCB contamination in fish tissue.

Students Learn About American Chestnut Tree's Past and Future

Hundreds of Dickenson County students were introduced this winter to a giant tree that their great-grandparents probably knew well. The American chestnut tree, the king of the eastern forests until the middle of the 20th century, was the subject of several presentations that reached about 450 local elementary and high school students in January and February.

The FORF partnered with The American Chestnut Foundation to bring guest speakers and hands-on materials to Dickenson County to instruct students about the tree that has a special place in the history of their land and in the hearts of many of their forefathers. We were especially honored to receive visits from the lead researcher and the president of TACF.

On February 27th the FORF held a seminar entitled *Reforestation in Appalachia and The American Chestnut Tree* at the Dickenson County Career Center that was attended by over 250 students from Haysi, Ervinton and Clintwood High Schools. Six guest lecturers spoke at the 90-minute session on topics that ranged from surface mines to plant genetics.

The featured speaker was Dr. Fred Hebard, the chief pathologist for TACF, who for the last 20 years has supervised the growth of tens



Dr. Fred Hebard of The American Chestnut Foundation lectures to county students.



Sandlick 5th grade students examine a twig and leaves from a pure American chestnut.

of thousands of hybrid chestnut trees at the foundation's research farm in Meadowview, VA. Dr. Hebard spoke about the restoration of the American chestnut to Appalachian forests via TACF's backcross breeding program, in which the American chestnut is crossed with the Chinese chestnut over several generations to produce a blight-resistant hybrid tree that retains the positive characteristics of the American tree. His team is about 5 years away from producing a 15/16ths American chestnut that can be expected to survive in the wild.

Dr. Hebard was introduced by Bryan Burhans, who recently became President of TACF. He gave an overview of the organization's history, mission and current work.

A couple of weeks earlier, students at Sandlick Elementary also learned about the American chestnut. Chris Eberly, the OSM/VISTA volunteer with the FORF, visited all of the 5th, 6th and 7th grade classrooms at Sandlick to give a talk on the history of the tree and its value to the early settlers of this region. TACF furnished a twig with leaves from a pure American chestnut, a tree trunk infected by blight, and a Petri dish containing the blight fungus that killed an estimated 4 billion trees.

HHS Competes in District Envirothon

After an absence of several years Haysi High School fielded a team for the Lonesome Pine District Envirothon this year. Seven 9th grade students dedicated themselves to the difficult task of competing against more experienced schools in the event, which was held March 27th at the Breaks. Head coach Ben Collins is in his first year at Haysi teaching Earth Science and Ecology.



The HHS Envirothon Team with their awards.

identified trees, and practiced their oral presentation with Mr. Collins.

In an unexpectedly strong showing, Haysi took 2nd place in Soils, 3rd place in Wildlife, 3rd place in Forestry and 3rd place in the Special Issue. Congratulations to the Haysi team on their success.

Congratulations also to the first place Clintwood team and Good Luck as they seek to return to the state championship.

The competition tested the team's knowledge of soils, aquatics, forestry, wildlife, and this year's special issue, biodiversity. In preparation the team attended a workshop at Phillips Creek on March 6th, and in later weeks they studied insects from the riverbed, identified

Ecology Class Takes Water Samples

Haysi High School's Ecology class recently took some time out of the classroom to spend the afternoon collecting water samples around Haysi with their teacher Ben Collins. The group of eight

students collected stream samples from six locations around Haysi and returned them to the FORF office for analysis. Their samples included at least one from each of the three rivers in Haysi: Russell Prater Creek at the Exxon station and at the mouth, the McClure River in the Bottom, and the Russell Fork at the school, at the town gazebo, and at Splashdam. All of these locations are part of the group of 25 sites that the FORF tests each month.



HHS students monitor the Russell Fork.

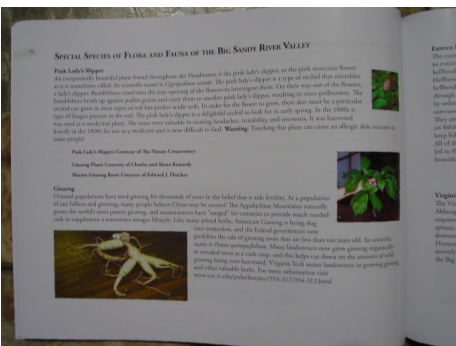
Later the students prepared the samples in Petri dishes and placed them in an incubator overnight to test them for E. coli bacteria. As it turned out, none of the 6 samples tested over the limit for E. coli that the VA Department of Environmental Quality sets for recreational activities. Thank you to the students for their help.

If you would like to be a volunteer monitor call us at 865-4918.

Textbook on Local Area Environment and History Published

A long-awaited textbook that focuses on the history and natural resources of our area has been published and every high school student in the region is scheduled to receive a copy.

The textbook, entitled *The Virginia Headwaters of the Big Sandy River: A Story of Revitalization and Nature's Resilience*, came



Section on the flora and fauna of the Big Sandy.

off the presses in January. It was co-authored by Lu Ellsworth, one of the founders of the Appalachian School of Law, and Kari Kilgore. What makes the text so distinctive is that it is the first book that investigates the headwaters of the Big Sandy River

as a region from a historical and environmental perspective.

In January the Dickenson County School Board voted to adopt the text as a supplemental science resource for ninth-grade earth science students throughout the county.

This year every high school student in Dickenson County, Buchanan County and Pound High School will receive a copy of the book. Afterward all incoming ninth graders will receive a copy as long as funding allows.

The book had its origins in a similar text written in 2006 for the Clinch River entitled *The Clinch River: A World Class Treasure*, by Frank Kilgore and Stacy Fowler Horton. That book attracted the attention of FORF director Gene Counts, who advocated for a similar book for the Big Sandy.

The book was a project of Mountain Heritage Incorporated, a non-profit conservation group based in St. Paul. It is intended for high school students and the general public.



Lu Ellsworth presents the Big Sandy textbook to Pound High School Principal Marcia Shortt.

7th Graders Raising Earthworms

Dickenson County 7th grade students have some visitors in their classrooms this spring. Not your typical houseguests, the visitors plan to stay for about a month and they only come out at night to eat leftovers. The students are in fact taking care of earthworms as part of the FORF's mine reforestation project at Splashdam. All 7th grade classes at Sandlick, Ervinton and Longs Fork are participating in the project. Each class was given a bin with about 150 earthworms inside, along with some training on how to feed



One of Mr. Edward's 7th grade science classes at Sandlick Elementary School with their earthworms.

them properly, control the moisture and light in the bin, and prevent the worms from escaping.

After a few weeks in the classroom, the worms will be released to do their job. The students will take a field trip to the mine

reforestation site at Splashdam, where 1900 hardwood seedlings await them. There the students will insert the worms into the ground around the seedlings. The worms are expected to burrow down to the roots and create much better soil for the trees to grow in. Afterward, additional educational activities, demonstrations and talks are planned for the students while they are on the site.

Special Thanks to JWT Well Services

The FORF would like to extend our thanks to JWT Well Services of Nora for their work in preparing the tree-planting site at Splashdam for our reforestation event on March 5th.

Normally the site preparation for the reforestation of an abandoned surface mine is done with a D-9 dozer with a ripper blade attached. The dozer makes deep cuts in two directions and the trees are planted in the intersections of the cuts. However, the FORF could not find a company with a D-9 dozer near our location, and as time grew short, it was JWT Well Services who came to our assistance. They pulled a smaller dozer and an excavator off of one of their mine reclamation jobs on short notice and sent them to Splashdam.

Together with Chris Owens of the Department of Forestry, who also brought a dozer to the site, they cleared the site in one day. Our thanks go to Chris for his efforts throughout the planning stages.

Then JWT's excavator operator worked for 3 days to turn over the soil at the necessary depth of four feet. In the end the site was ready for the trees by the planting date.

We are grateful to JWT for their support of this and other projects in the county.



JWT Well Services' excavator operator turns over the top four feet of soil at the Splashdam mine site.



Upcoming Meetings:

Tuesday Apr 14
Tuesday May 26
6PM
at the FORF office
(Haysi High School)



Appalachian Coal Country Watershed Team

The Appalachian Coal Country Watershed Team (ACCWT) helps rural communities by building local organizational capacity and partnerships. The Team coordinates a group of 35 OSM/VISTA volunteers who live and work in their Appalachian host communities to promote environmental change.



Through partnerships between the Office of Surface Mining, AmeriCorps*VISTA, and coal country watershed groups, the ACCWT targets environmental problems in eight Appalachian states (AL, KY, MD, OH, PA, TN, VA and WV).

Founded in response to requests from local watershed groups throughout coal country, the Appalachian Coal Country Watershed Team arms citizen groups with the knowledge, skills, and tools necessary to make them effective environmental stewards, community leaders, and accelerators of change. Together, the Team and its local partners work to propel a new Appalachian economy based on conservation and development, strong and wide-ranging partnerships, and community mobilization and empowerment.

Founded and directed by Dr. T. Allan Comp, the ACCWT and Allan are both recipients of numerous national awards. The ACCWT was named the Governmental Partner of the Year by the National Summit of Mining Communities in 2006 and received the U.S. Department of the Interior Environmental Achievement Award in 2004. Allan's work with his AMD&ART Project won a Green Design Award from the PA Environmental Council and the prestigious Phoenix Award from the EPA Brownfields Program, among others.