APPALACHIAN REGIONAL REFORESTATION INITIATIVE

ARRI News



VOLUME II, ISSUE I

JUNE 2009

ICG Eastern, LLC Hosts Arbor Day in West Virginia

Story by Brad Edwards Photos by Bill Young

ICG Eastern, LLC once again welcomed area students in celebration of Arbor Day.

On April 23, 2009 approximately 75 fifth and sixth grade students from Glade Middle School and the Science Bowl Team from Webster County High School and their teachers joined ICG Eastern, LLC, the West Virginia Department of Environmental Protection (WVDEP), the Office of Surface Mining Reclamation and Enforcement (OSM), The American Chestnut Foundation and other special guests which included Senator William Laird, Delegate Joe Talbot, and the Governor's Office Regional Representative, Steve Pilato in planting red oak and American chestnut seedlings at the mine site in celebration of Arbor Day.

The mine site located in Webster County, is operated by ICG Eastern, LLC, a subsidiary of International Coal Group, Inc.

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Brad Edwards, OSM, assists Glade Middle School students in planting red oak seedlings.

Maryland holds Arbor Day in Allegany County

Story and Photo by Pete Hartman

The Maryland Department of the Environment, Bureau of Mines, (MDE) in partnership with the Department of Natural Resources, Power Plant Research Program held their 2009 Arbor Day/ Earth Day tree planting event on April 15, 2009 Allegan near Barton, County, Maryland. (continued on page 4)



(From left) Mark Carney and Mike Garner of MDE presented Junior Riley and Rodney Tichnell of Vindex Energy the 2008 Maryland ARRI Award.

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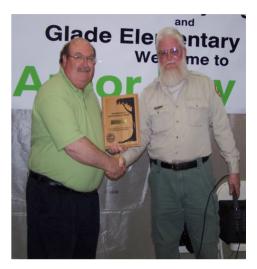
The day's activities began with students being introduced to stream biology and chemistry. A biologist demonstrated how science is used to evaluate streams before and after mining. A "bug" investigation (Benthic Macro invertebrate) was conducted to demonstrate the outstanding quality, abundance and variety of aquatic life established in Birch River downstream of the active mine.

During the event, ICG Eastern was awarded the "Excellence in Reforestation Award" for 2008 by Keith Evans, WVDEP inspector, on behalf of the Appalachian Regional Reforestation Initiative (ARRI). This award is presented for exemplary performance using the Forestry Reclamation Approach. The award was presented to ICG Eastern LLC's president, Michael Duvall.

AARI is a coalition of groups including: citizens, an academic science team, the coal industry, OSM and state regulators that are dedicated to restoring forests on coal mined lands in the Eastern United States. The ARRI initiative promotes planting high-value hardwood trees in a manner that increases the survival and growth rates. Since 2005, ARRI has presented the Excellence in Reforestation Awards to individuals, operators, and/or organizations for their exemplary efforts in forestry reclamation at mine sites.

The Excellence in Reforestation Awards Program was created to acknowledge and to publicly recognize those responsible for Appalachia's most outstanding achievements in forestry reclamation and to encourage the exchange and transfer of successful reforestation technology.

To wrap up the day's activities, students planted 200 chestnut oaks and 30 American chestnut trees and participated in an educational program highlighting the importance of establishing forests on reclaimed mine land to offset human impacts on our environment.



From left, Michael Duvall of ICG Eastern, LLC accepts the 2008 WV ARRI award from Keith Evans, WVDEP.

Oxford Mining Company, LLC Receives ARRI Award for the Second Time

Story by Jeff Emmons Photo by Trish Padley

On April 3, 2009 the Ohio Department of Natural Resources, Division of Mineral Resources, Division of Wildlife (DOW), Division of Forestry, the Office of Surface Mining Reclamation and Enforcement, and Oxford Mining Company, LLC celebrated Arbor Day at Jockey Hollow –West by planting 600 American chestnuts on mined lands reclaimed using the Forestry Reclamation Approach (FRA) for growing trees.

Oxford Mining Company, LLC permit D-2253 was reclaimed using the FRA on over 100 acres of the mine.

The land is owned by the State of Ohio and managed by DOW.

Oxford Mining has planted 100,000 hardwoods on the permit in the last two years. In co-operation with Ohio University, and the American Chestnut Foundation volunteers have been able to plant an additional 5,000 American chestnuts on the reclaimed permit. The chestnuts planted are pure Chestnuts and backcross American chestnuts both from seeds and seedlings. For their efforts, Oxford Mining Company, LLC has been awarded the 2008 Appalachian Regional Reforestation Initiative Award for the state of Ohio. This is the second time that Oxford Mining has won the state award.



From Left: John Husted, Chief, Division of Mineral Resources, Michael Hiscar, OSMRE and ARRI representative, Jeff Emmons DMRM and ARRI Representative, Chuck Ungrean, President of Oxford Mining Company, LLC and George Rieger, OSMRE Ohio Program Director.

Story and photos by Linda Keene

Perry County school students from Chavies and Big Willard Elementary schools and Perry County Central High School learned about and participated in an Arbor Day event on April 24, 2009. Approximately 115 fourth and fifth grade students and Perry County Central, Future Farmers of America (FFA) students joined The American Chestnut Foundation (TACF), and Federal and Kentucky officials. They planted American chestnut trees and Appalachian hardwoods on a mine site in celebration of Arbor Day and a partnership working to replant the forest in Appalachia.

Pine Branch Coal Sales, Inc is mining and reclaiming the Spencer Fork Mine, near Chavies, Kentucky. The FFA students helped the fourth and fifth graders dig holes to plant American chestnut trees and



Students from Big Willard Elementary observe Jason Hunt, service forester, from the Kentucky Division of Forestry demonstrate tree planting.

Appalachian hardwoods trees and participated in an educational program highlighting the importance of establishing forests on reclaimed mine land.

Diane Mastin from Big Willard Elementary said, "Events like this build lasting relationships. The children from our school know their daddy's mine coal and this event lets them come out and see reclamation and reforestation put into practice."

The American chestnut tree was once a prominent species in the eastern half of the United States accounting for nearly 25% of all hardwoods within its natural range from Maine to Georgia. In the 1930's it was attacked in Kentucky by a fungus that was first observed in New York in 1904. The fungus, known as chestnut blight, destroyed more than four billion American chestnuts and nearly took the tree it to extinction.

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(From left) Liz Cox, Chet Edwards, Brian Smith, Loren Estes and Gail Smith, all from OSM, bag pine seedlings to give to the students to take home from the event.

VISTA helps Plant Trees

by Chet Edwards

Volunteers from OSM/VISTA, University of the Cumberland's, and volunteers and friends wanted to see trees re-established on the Cumberland River Reclamation Project in Whitley County, Kentucky.

They enjoyed participating in a tree planting project that planted approximately 2,500 high value hard-

wood seedlings on a six acre pre-SMCRA coal mined site that was reclaimed to pasture from an original forest land use. The post mining land use had no agricultural infrastructure and the land was not managed for agriculture post mining. Consequently, the site reverted to a mono culture of sericia lespedeza. This dense grass cover has prevented early forest succession.

The present land owner learned of

the Forestry Reclamation Approach from the Appalachian Regional Reforestation Initiative, and then partnered with the Appalachian Coal Country Watershed Team to convert portions of the property to forest land using high value hardwood trees.

The soil medium consisted of soft shales and subsoil that was ripped approximately 4 feet deep to accommodate the plantings.

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The goal of the event was to plant tree seedlings on five acres of mined land as part of their on-going efforts to promote reforestation and reclamation techniques that enhance tree growth and survivability for carbon sequestration. Various species of hardwoods and pines were planted along with ten chestnut seedlings. Approximately 2600 tree seedlings were planted under rainy skies.

The tree planting site is located on an active coal surface mine operated by Vindex Energy, permit SM-84-338. Vindex Energy is active in reforestation of mined land and is using an innovative reclamation technique, the Forestry Reclamation Approach (FRA), to improve the results of their reforestation.

Participants included: Bob Summers, Assistant Director of the Maryland Department of Environment; Maryland Bureau of Mines personnel; youth from the Maryland Forestry Camp at Meadow Mountain; Kelly Martin, local watershed coordinator; and OSM personnel from headquarters and the Pittsburgh Regional Office. Approximately 2600 trees were planted under rainy skies.

The MDE, Bureau of Mines provided the trees, planting tools and lunch.

The Appalachian Regional Reforestation Initiative award presentation was held during the meal. The award was presented to representatives of Vindex Energy.

BARK Recognized for Tree Planting Efforts

Story by Mike Hiscar Photo by Marcie Moore

The Barnesville Area Reforestation Kommittee (BARK) was recognized for their tree plantings efforts with an Appalachian Regional Reforestation Initiative, State of Ohio award. For the past six years local organizers have planted trees in the Barnesville Area on surface mines, mined and reclaimed by Oxford Mining Company, LLC.

For the past three years Oxford Mining Company, LLC has reclaimed portions of their surface mines using the Forestry Reclamation Approach. These areas were reclaimed by end dumping the re-soiling material without compaction; this process has been proven, through research, to provide the best planting medium for a forestry post mining land use.

"We have seen the survival ability and growth rates improve immensely since planting on the reclaimed ground that was reclaimed according to the ARRI standards," said Nathan Taylor Wildlife/Forestry Specialist Belmont Soil and Water Conservation District and BARK member.

This year over 200 local volunteers planted the six acre area with over 3,000 hardwoods including walnuts, American chestnuts, hickory and butternut as well as redbud and oaks. This year's theme was "Going out on a limb to bring back the trees."

The ARRI award was presented to the BARK Committee for outstanding reforestation and reclamation work.

Participants received a tee shirt, breakfast and lunch served by the local Kiwanis Club of Barnesville.

The tree planting volunteers were assisted by the local Girl Scout Troops and the Olney Friends School.



(From left) Receiving the award are Nathan Taylor, Belmont County Soil and Water Conservation District, Jim Grear and Paula Grear, BARK, Jeremy Scherf, Division of Forestry, Marie Bundy, BARK, Jeff Emmons, Division of Mineral Resources Management, Shelly Rockwell, BARK and Michael Hiscar, Office of Surface Mining.

The Fifth Time is a Charm for Virginia's Arbor Day

By: Jon Lawson Photos by Gavin Bledsoe

On April 3, Virginia held its fifth Annual Arbor Day Celebration on TECO's Clintwood Elkhorn Mining Company Bearwallow Surface Mine.

The theme of the event was Trees for Wildlife.

Even Mother Nature could not dissuade the record attendance level for this event. Despite howling winds and light showers nearly 450 people came out to plant hardwoods on Virginia's foremost fully Forestry Reclamation Approach (FRA) permit.

The record setting attendance included every sixthgrade student from Buchanan County Public Schools, the Mountain Mission Private School, the Home School Association of Buchanan County, and a visit from the sixth graders from Majestic Knox Elementary School located just across the state line in Kentucky, for a grand total of 350 students.

The agenda included a docket of dignified speakers, tree planting, educational stations, and a hamburger and hot dog lunch.

The educational stations and tree planting species selected were based around the Trees for Wildlife theme. Over 1,000 tree seedlings were planted on the re -graded areas of the site. Bob Paris, geneticist from The American Chestnut Foundation, led one of the educational stations and also donated several backcross chestnut seedlings to plant during the event. This marked the first introduction of backcross seedlings onto an active Virginia surface mine permit.

In the other two stations representatives from Virginia's Division of Mined Land Reclamation spoke to the students about the FRA and wildlife that inhabits the coalfields of Southwest Virginia and how the wildlife benefits from reforestation and early succession habitat.

One might think it is difficult to trump an event of this magnitude and the biggest story of Virginia's Arbor Day is the record attendance, however, you would be mistaken. The record attendance is a side note, at least to one Buchanan County family.

Gene Boyd is the mine site superintendent on Clintwood Elkhorn Mining Company's Bearwallow site.

The Bearwallow surface mine is a pioneer in Virginia's implementation of the science behind the FRA and ARRI's goals. Boyd has been there from the beginning overseeing the operation, including providing onthe-ground direction to keep the mine's soil from being over compacted and making sure the post-mining land use of forest land is achieved. For this reason, he was selected to receive Virginia's ARRI Award and the Virginia Department of Mines, Minerals, and Energy ARRI Reclamationist of the Year award for his excellent work.

He was presented his awards by Jackie Davis, VA Division of Mined Land Reclamation, Director. To add to the excitement, Boyd's wife, Lisa, a teacher and his son, a sixth grade student in Buchanan County were in attendance. They were very proud of the recognition for his hard work and dedication to the reforestation of mined land in Virginia.

Another spin on this years event was the student art contest sponsored by the Virginia Mining Association (VMA) that was held to create the Arbor Day logo used on the tee shirts celebrating the event.

Not to be upstaged, Boyd's son, Reed, was announced the winner of the VMA's art contest. Along with seeing his artistic creation on over 450 tee shirts, Reed also won a gift certificate for his work.



(From left) DMLR Director Jack Davis presents Gene Boyd, Clintwood Elkhorn Mining Company, with ARRI Individual Award.



Margie Horton and Bill Bledsoe, Virginia Mining Association, present Reed Boyd (center) with first place award in the VMA sponsored Art Contest.

Coal and Coffee Impacts the Cerulean Warbler

By Dr. Patrick Angel

Coal industry representatives from Appalachia and Colombian coffee officials met with Cerulean Warbler conservationists on April 14, 2009 in Charleston, West Virginia to discuss proactive conservation opportunities for Cerulean Warblers across their range in North and South America.

The Cerulean Warbler is a small migratory songbird that breeds in mature deciduous forests of eastern North America, migrates across the Gulf of Mexico and through Central America, and winters in evergreen forests of the northern Andes Mountains in South America. Habitat loss and degradation across all these areas have contributed to Cerulean Warbler population declines of about 3% per year over the last 40 years. A remarkable overlap occurs between Cerulean Warbler habitat and existing areas of Appalachian coal and Andean coffee production.

The primary purpose of the Coal-Coffee-Cerulean meeting in Charleston was to explore the possibility of a partnership that links the two industries with the Cerulean Warbler Technical Group (CWTG). The CWTG is made up of international representatives from government agencies, bird conservation groups, researchers, industries (i.e., coffee, coal, and timber), and individuals working to stop the population decline of the Cerulean Warbler and other neotropical migratory song birds.

Participants in the Coal-Coffee-Cerulean meeting discussed ways to reverse population declines of Cerulean Warblers, thereby reducing the likelihood of listing the species under the Endangered Species Act in the future. Proactive, strategic, and coordinated conservation/restoration of forested habitat on breeding and non-breeding grounds would improve or maintain ecosystem functions in key areas for Ceruleans.

Conference attendees discussed strategies to increase, maintain, and protect shade-grown agriculture and primary forest in South America, reclaim surface mined lands back to functional native hardwood forests by using the Forestry Reclamation Approach (FRA) in North America, and educate children, communities, and industry professionals about the international connection of coal, coffee, and Cerulean Warblers.

Conference participants discussed several next steps that would help to implement these conservation strategies, including developing a process to identify and reach out to likely permitees and mining companies in key Cerulean Warbler areas to encourage the use of FRA, working with existing education programs and mining associations on education projects, and working with extension services to promote reforestation of mined lands. Working with environmental committees of state and national mining associations to further develop and implement these strategies will be key to their success.

The FRA is a method for reclaiming coal-mined land to forest under the Surface Mining Control and Reclamation Act. The FRA can achieve cost effective regulatory compliance for coal operators while creating productive forests that generate value for their owners and provide watershed protection, wildlife habitat, and other environmental services.

Bucktail Students Plant Trees in PA

Story and Photo by Doug Saylor

On April 24, 2009, 43 students and five teachers from Bucktail High School in Noyes Township, Clinton County, PA, participated in planting 2,000 white pine, 500 red oak and 25 American chestnut trees in celebration of an environmental Arbor Day field trip.

The event was organized by District 10 Bureau of Forestry on an abandoned and recently reclaimed mine site know as Robins Farm.

Presentations were given on proper planting of trees, the importance of forests, the history and demise of the American chestnut, and work being done to restore the American chestnut.

The students saw efforts made to rejuvenate an old apple orchard.

Also included in the event was a presentation on the history of mining, streams impaired by acid mine drainage in Pennsylvania and what is being done to clean them up. The students took measurements of pH, dissolved oxygen, and iron measurements of the influent and effluent of a vertical flow passive treatment system.



Rich Kugel, assistant district forester in Sproul State Forest District 10, PA talked to Bucktail Area High School students about day lighting an old apple orchard that had been overgrown by the surrounding forest. Some of these students are on the schools environment science team.

FRA used to Reclaim Anthracite Coal Mine

Story by David Hamilton

On May 1 and 7, volunteers from local schools, community, and others from local and Pennsylvania state agencies and Office of Surface Mining Reclamation and Enforcement's (OSM) VISTA program, assembled on Mountaintop Coal Mining Inc's, Schuylkill County Airport permit in support of the Appalachian Regional Reforestation Initiative (ARRI).

A two and one half acre mined and reclaimed tract of land was prepared for tree planting by Mountaintop Coal Mining Inc, using a large ripping bar attached to a dozer. The parcel was previously covered in grasses. The site was planted with hundreds of mixed Appalachian hardwood tree species and a mixture of wildlife tree and shrub species donated by the Pennsylvania Game Commission and other regional tree nurseries.

This event was organized by the Schuylkill Headwaters Association, in partnership with OSM's VISTA program and the Appalachian Coal Country Watershed Team.



(Photo by Eric Brummer)

(From left) David Hamilton, OSM; Paul Lohin, Board Chairman of Schuylkill County Conservation District; Bill Reichert, President Schuylkill Headwaters Association accepts the ARRI Reforestation Award; Frank Staudenmeier, Schuylkill County Commissioner; Tim Vought, Mountaintop Coal Mining Inc; and Michael Myers OSM/VISTA look on.

The purpose of the event was to highlight mined land reforestation efforts being made across the Appalachian Region under the ARRI program. Although the acreage was small, this event was significant because it marked the first time the principles of ARRI have been used for tree planting on an anthracite coal mine permit. ARRI promotes loose placement of the top four to six feet of spoil/soil material, and reduction or elimination of competing grasses, in order to enhance tree survival and growth; and the planting of native hardwood species commonly found on the surrounding lands.

Recognizing this pioneer effort in the anthracite region, OSM presented an ARRI Reforestation Award to the primary partners including; the Schuylkill Headwaters Association, the Schuylkill County Conservation District, the Schuvlkill County Commissioners. The Pennsylvania Game Commission, and Mountaintop Coal Mining Inc. The Pennsylvania Department of Environmental Protection's Pottsville District Mining Office is also recognized for their support of the ARRI program and modification of the mining permit to allow the reclamation plan.

Lunch was provided by the Wal -Mart Regional Distribution Center.



(Photo by David Hamilton) This mountaintop mine site was ripped for tree planting.

Perry County continued from page 3...

The American Chestnut Foundation has been working for 26 years to develop a blight-resistant American chestnut that will be used to repopulate the eastern forests. Since these new trees, known as backcross American chestnuts, will not be available for widespread distribution for several years, pure American chestnut seedlings will be used as proxies on this mine site and others in Kentucky until the backcross trees are available in large quantities. This year is the second vear of a long-term effort using mine sites as "springboards" for returning the American chestnut into the Appalachian forests sponsored by TCAF and the Appalachian Region Reforestation Initiative.

Prior to tree planting, Kentucky Division of Forestry staff demonstrated proper tree planting techniques. Pine Branch Coal Sales, Inc hosted the event.

Haley Caldwell, fourth grade student from Willard Elementary, said, "I learned how to plant trees. I never heard of Arbor Day before today."



Richard Wahrer, Kentucky Department for Natural Resources, viewed a piece of equipment used on this site.

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West Virginia Reforestation Project made Possible by Volunteers

Story by Jessica Vierling

Boone County West Virginia – On March 27, The Appalachian Coal Country Watershed Team (ACCWT) proudly partnered with the Appalachian Regional Reforestation Initiative (ARRI) and Patriot Coal to successfully host a tree planting event. Thirty-three community volunteers attended the event to plant 3,650 hardwood trees of several native tree species on a four acre plot of previously mined land just outside of Prenter, WV. The outcome of the endeavor is to enhance a reclaimed mine site through the supplemental planting of native hardwood species to promote forestland and wildlife habitat of the area. This effort is helping to influence the way reclamation progresses.

Many groups donated trees including: Patriot Coal, The American Chestnut Foundation, and ArborGen. Other donations were provided by: Kroger, Paul Hutchinson, and City National Bank.

"The ACCWT is an organization built on partnerships. Today is an example of successful partnership building; volunteer groups, state and federal agencies, and industry leaders joined together for this exciting initiative. Without them, this wouldn't be possible," said April Trent, ACCWT Program Coordinator and organizer of the tree planting event.

The ACCWT, a Beckley, WV based organization, is a coalition of change-minded grassroots-level watershed improvement groups determined to repair the environmental degradation left from historic coal mining while creating economic stability needed in our rural communities.

The ACCWT works throughout an eight state Appalachian region (PA, OH, MD, VA, WV, KY, TN, AL) with unified goals to: build local capacity, monitor water quality, enhance outreach and education, engage redevelopment and require professional development.

The team is supported by an innovative partnership between AmeriCorps VISTA and the Office of Surface Mining Reclamation and Enforcement (OSM).

The ACCWT began in 2002 as an OSM/VISTA initiative, placing determined college-trained OSM/VISTA volunteers in a year of service in rural mining communities. Reflecting the needs and the determination of the communities they serve, the ACCWT currently has 36 OSM/VISTAs in the field.

2009 is the first year that the ACCWT has partnered with ARRI.

Together, the ACCWT and ARRI are hosting 10 volunteer oriented tree planting events throughout the ACCWT's eight state region. This joint effort strives to improve watersheds through the reforestation of former mine sites reclaimed with a grassland reclamation approach. More than three million Appalachian residents live within a mile of an abandoned mine land site. Through community involvement and volunteerism, these ten successful projects are coming to fruition.

This partnership is successfully enhancing reclaimed mine sites through the supplemental planting of native hardwood species to promote healthy forest habitats, an effort that is helping to influence the way reclamation progresses in the future. To date, these projects have planted over 15,000 native hardwood trees on approximately 32 acres of mined lands.

Groups Partner with ARRI

The Appalachian Regional Reforestation Initiative (ARRI) is proud to have partnered with the Appalachian Coal Country Watershed Team (ACCWT), The Eastern Coal Regional Roundtable, (ECRR) and the Appalachian Forest Heritage Area to plant native hardwood trees on abandoned/ reclaimed mine lands throughout the region.

This spring, ACCWT, OSM/ VISTA and AmeriCorps Volunteers sponsored and organized eight tree planting events in their areas and engaged in a wide range of reforestation related activities ranging from involving elementary and high school students, church groups, and environmental groups in a day of service to hosting representatives of the United Nations in tree planting ceremonies.

Citizen and industry volunteers planted an astounding 28,000 tree seedlings on 31.7 acres of the eight mine sites. The sites ranged in size from 2 to 8 acres and were located in Dickenson and Wise County, Virginia; Letcher and Whitley County, Kentucky; Boone and Webster County, West Virginia; Columbiana County, Ohio; and Schuylkill County, Pennsylvania.

An outpouring of support from coal industry leaders, citizens, and landowners to local and national media reminds us that reforesting Appalachia is a top priority. We look forward to supporting more reforestation projects next spring, starting with the ripping of compacted mine soils this fall. Contact April Trent, ACCWT Program Coordinator at <u>coordinator@accwt.org</u> to learn how you can become involved in a citizen/ industry volunteer tree planting event next spring.

Appalachian Regional Reforestation Initiative



The Appalachian Regional Reforestation Initiative was started in 2004 with the goal of encouraging the planting of high-value hardwood trees on reclaimed coal mine sites using the Forestry Reclamation Approach. The initiative is a coalition of the States of the Appalachian , the Office of Surface Mining and their partners in industry, environmental organizations, academia, local, State and Federal government agencies and local citizens who have come together to support this valuable initiative.

For more information on ARRI see our website at: http://arri.osmre.gov/

ARRI News editor: Linda Keene Layout design: Linda Keene

GOALS OF ARRI

- Plant more high-value hardwood trees on reclaimed coal mined lands in
 Appalachia.
- Increase the survival rates and growth rates of planted trees.
- Expedite the establishment of forest habitat through natural succession

ARRI Core Team Leaders: Paul Rothman, Kentucky DNR Mike Bower, OSM Appalachian Region Academic Team Leaders: Dr. Jim Burger, Virginia Tech Dr. Christopher Barton, University of Kentucky Academic Team Liaisons: Dr. Patrick Angel, OSM Appalachian Region Vic Davis, OSM Knoxville Field Office