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Linn Log

FALL 2024

Our First Permanent Trail Easement

The Merrill W. Linn Land and Waterways Conservancy is pleased to announce a significant development at the Glacier Pools Preserve in eastern Lycoming County, where its 5 miles of trails are now protected as a formal Trail Easement. This ensures that the refuge will now be open and accessible to the public in perpetuity. Previous to this Trail Easement, the first to be negotiated by the Conservancy, the 290 acres of mature forest, wildflower meadows, sweeping vistas, and vernal pools were preserved – but perpetual access was not guaranteed. Only 22 of the 70 Land Conservancy groups in Pennsylvania have successfully achieved permanent public access to lands they protect, and we are proud to be among them.

Landowner Michael Gross is glad to have access assured for what he considers an “unusually varied and interesting piece of land.”

“The more I have gotten to know (Glacier Pools) I have wanted to be sure it remained open to the public,” says Gross, “but good trail systems are a work of art and I didn’t want the ones here to revert to overgrowth and disappear after I can no longer take care of them.”

Gross has seen evidence at Glacier Pools of all sorts of wildlife, including amphibians who depend on the vernal pools and mammals like bears, porcupines, deer, and many other species. The 35 acres of managed open meadow boast successional blooms of

wildflowers and provide habitat to butterflies and ground-nesting birds.

A Board member of the Merrill Linn Conservancy, Gross credits a decade’s-worth of effort from past-President Diane Donato for “being really helpful in figuring it all out and plotting a direction” for putting the new trail easement in place. He is also grateful for the financial assistance he received from Pennsylvania General Energy of Warren, PA.

“My property is in the middle of an active subsurface gas-drilling area using resources that are two miles deep, with no surface disturbance. The funds from this lease are what have been used to fund the permanent endowment of the trails.”

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Mission of the Merrill W. Linn Land & Waterways Conservancy

To preserve and protect significant ecological sites in Union, upper Northumberland, and neighboring counties and to engage the public with conservation issues that affect the health of our environment.

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Chris Martine & Christopher Stowe,
Linn Log Editors

The Merrill W. Linn Land and Waterways Conservancy was founded in April 1988 in memory of Merrill W. Linn, a local attorney and avid outdoorsman, who spent much of his life exploring the woods, streams, fields, and byways surrounding his native Lewisburg, and sharing that experience and knowledge with others.

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Acid Mine Mitigation

For decades, the headwaters of Buffalo Creek in the Bald Eagle State Forest, was devoid of fish, and any other normal kind of life, due to an unusually low pH of the water. The water was too acidic (4.0) for normal life to survive.

The cause? Acid precipitation from industrial plants to our west. The rain falls everywhere, so why does only this section have the problem? In the valley, limestone in the



stream beds naturally buffers the acid. In the mountains of the state forest, any buffering of the rain is limited because the geology is different there. The Buffalo Creek headwaters in the forest, unfortunately, flow through a Tuscarora sandstone formation, which has no buffering action: this leads to this decades old problem, as long as acid precipitation has existed.

The Buffalo Creek Watershed Alliance (BCWA) was created as part of Linn Conservancy in 2002. One of its first goals was to correct this problem. They started a 5-year project, from concept to operation, with many partners, and significant financial backing from grants, leading to the system that was completed in September 2009. The design contains two limestone ponds in series, one a lateral flow with aerobic buffering, the second a vertical flow with compost and Cat-o'-nine-tails (*Typha latifolia*), creating anaerobic buffering of the water. This combination provides an optimum acid remediation under many flow conditions.



Attendees at the recent Living Landscapes mitigation site tour.

Continued bi-yearly maintenance by BCWA volunteers Thom Fantaskey and Tom Duck has assured that the system has continued to operate as designed. BCWA has a 25 year responsibility for making sure it continues to work. Since the system was turned on, the pH of the stream below the remediation site has too high to support normal aquatic life. However, after 15 years of acid mitigation Buffalo Creek in that section is now once again a high-quality trout stream.

Due to the past acidity, the PA DEP had placed this section of Buffalo Creek on the state's impaired list. As normal ecological communities reappear, it is BCWA's hope that this segment will be delisted soon, i.e. removed from the impaired list.

Special thanks to our partners: BCWA, Linn Conservancy, Bucknell University (Carl Kirby and Matt McTammany), Union County Conservation District, Deitz-Gorley Consulting LLC, PA Department of Forestry, PA Department of Environmental Protection; and to our funders: \$290,000 from Growing Greener, \$12,500 from Foundation for Pennsylvania Watersheds (and a continuing \$9,000 maintenance fund).

Shared by: *Dave Staebler, Buffalo Creek Watershed Alliance*

Rare Plant Delisted

The US Fish and Wildlife service recently announced a proposal to remove the northeastern bulrush (*Scirpus ancistrochaetus*) from the federal endangered species list. When the species was listed as endangered in 1991, there were only 13 known populations in seven states. Today, however, there are 148 known populations in eight states — New Hampshire, Vermont, New York, Pennsylvania, Virginia, West Virginia, Maryland, and Massachusetts — more than an 11-fold increase. The presence of this unusual species at the Mohn Mill Natural Area in Bald Eagle State Forest is largely what led to the area's designation as the Mohn Mill Ponds Wild Plant Sanctuary. The area can be accessed along the two-mile Merrill Linn Trail, a trail that is co-managed by the Conservancy (although the land itself is not a Conservancy holding), and the successful monitoring of the species in PA is cited as part of the reason that the northeastern bulrush is now going to be delisted. This is a major success story for this special plant species with credit due to the many community partners that have played a role in helping to protect areas like Mohn Mill — from botanists and conservation biologists to land managers and outdoor enthusiasts. The species is still not common, however, and continued...

(Continued on page 4)

Dale's Ridge 35th Anniversary

Contributed by Christopher Stowe

This October marked a significant milestone for the Dale-Engle-Walker Property, fondly known as Dale's Ridge. For 35 years, this cherished landscape has stood as a testament to the power of conservation and the dedication of previous owners Ralph and Rosemary Walker. On October 16, 1989, the Walkers made a transformative decision that continues to benefit generations of nature lovers today: they entrusted the property to the Conservancy through a conservation easement. Their vision was simple yet profound—protect the natural beauty of Dale's Ridge and make it accessible to the public for years to come. The Dale-Engle-Walker Property spans 137 acres and at the heart of the property lies a 2.3-mile trail that offers visitors a tranquil experience through diverse habitats and scenic views. Located off Strawbridge Road in Union County, this trail has become the Merrill Linn Conservancy's most popular, attracting over



Early spring view of the Buffalo Creek stretch of the Dale's Ridge trail.

1,000 visits each month. The Walkers' generosity went beyond safeguarding the land's ecological integrity. They ensured the property would be a place where people could connect with nature by granting the Conservancy the right to build and maintain a trail for public use. Today, visitors to Dale's Ridge can explore its beauty while appreciating the foresight that has preserved it for public enjoyment. For donors, property owners, and nature enthusiasts alike, the



Warty bark of hackberry (*Celtis occidentalis*), one of the most common native trees along the Dale's Ridge Trail.

Dale-Engle-Walker Property stands as a shining example of how conservation easements can protect land while opening it up for all to enjoy. As we celebrate 35 years of preservation, we honor not only the natural splendor of this land but also the foresight and generosity of those who have made it possible.

Annual Community Fossil Dig

The annual Community Fossil Dig was held on Saturday, October 5 at the Spring Township Shale Pit in Beaver Springs, PA. The event was hosted by Bucknell geologists Jeff Trop (Presidential Professor of Geology), Gavin Davidson (Director of Labs, Department of Geology & Environmental Geosciences), and Mary Beth Gray (Professor and Chair for the Department of Environmental Geosciences), with help from Bucknell students as well as geology experts from Lycoming College and the PA State Geological Survey. Attendees young and old discovered and collected fossils from a quarry containing a rich trove of ancient life and learned about the natural history of our region. Among the treasures found each year are 390 million-year-old marine fossils like brachiopods and crinoids – but some lucky fossil hunters also came across less-common critters like trilobites, bivalves, gastropods, cephalopods, corals, and bryozoans.



2024 Community Fossil Dig at the Spring Township Shale Pit.

Conservation and Economic Growth

A recent study published in the scientific journal *Current Biology* suggests that protected areas, like nature reserves, can conserve biodiversity without harming local economic growth, countering a common belief that conservation restricts development. The study found that 91% of the nearly 10,000 protected areas studied lost no or less natural land than similar but unprotected areas—a conservation win. But perhaps surprisingly, almost half the surveyed protected areas safeguard natural land without hurting, and sometimes helping, local economic growth. The authors also confirmed conclusions from previous studies showing that where local communities play a role in the management and stewardship of the protected areas, better conservation and socioeconomic outcomes can be produced.

(Continued from page 2)



Bucknell students at the plant sanctuary

...management of sites along the Merrill Linn Trail may be required. The northeastern bulrush is especially sensitive to being shaded out and has experienced decline in pools where trees have closed the canopy above them. Likewise, the plant has a narrow range of preference related to wet-dry cycles; recent perturbations in precipitation patterns are thought to have reduced the numbers of plants in established populations.



Northeastern bulrush at Mohn Mill.

Invasive Species Control

The Conservancy partnered this fall with Art Gover, Research Support Associate in Wildland Weed Management at Penn State, to help control incursions of the invasive Callery pear (*Pyrus calleryana*) at our Dale-Engle-Walker and Koons Trail properties. Callery pear, also frequently referred to by the name of its most common cultivated variety, Bradford pear, is one of our region's most aggressive weedy trees. Hikers on the treated properties may note patches of small trees with dead and darkened leaves. Stay tuned for opportunities to volunteer for



Treated pears at Koons Trail.

future efforts to control this and other problematic species on our conservation properties. Invasive species are thought to have been involved in 70% of this century's extinctions of native aquatic species, and 42% of current endangered species are impacted significantly by invasive species.

Farewell to Becky Stugart

The Conservancy bids a fond farewell to our inaugural Adventure Coordinator Becky Stugart (shown here leading a members kayak paddle) as she heads off for a new job as Impact Coordinator with the Community Giving Foundation in Berwick, PA. Becky has organized over 75+ fantastic programs in her two years at MLC, providing educational opportunities to over 3,000 participants who have been hooked by her contagious enthusiasm and spirit. We wish Becky all the best in her next adventure!



A View From the Past



Buffalo Creek - under the Lewisburg railway bridge - in winter, undated. (Bucknell University digital archives.) Noting water levels and dates of winter freeze or spring thaw is a valuable means of "citizen science," where we can observe and keep track of changes in our local environments. It may be that Buffalo Creek won't freeze as often or as early in this era of climate change.

'Tis the Season



Two plants commonly harvested to make holiday wreaths: princess-pine (left) and Oriental bittersweet. The princess-pines, also called clubmosses, are native members of a group called the Lycophytes that are better left in nature. All species are considered vulnerable in Pennsylvania due to overcollection. Oriental bittersweet is an invasive exotic species, so feel free to collect away – but just be sure to dispose of the material in a way that doesn't cause further spread into uninvaded natural areas.

WELCOME NEW MEMBERS, 3rd Quarter, 2024

Bloomsburg: Suzann Schiemer and Ronald Haas, Danielle Ross, Susan Webster; New Columbia: Robert and Judith Hontz; Lewisburg: Amy Levan and Steven Beattie, John Ptacek; Mifflinburg: Bill and Sharon Lynch, Jeanette Musser; Selingsgrove: Colleen McCullion