Linn Log newsletter of the Merrill W. Linn Cland & Waterways Conservancy Spring 2016



Mission of the Linn Conservancy

To preserve and protect significant ecological sites in Union, upper Northumberland and contiguous counties and to educate the public on conservation issues critical to the health of our environment.

Board of Directors

Susan Warner-Mills, President Bob VanHorn, Treasurer Owen Floody, Secretary Warren Abrahamson Marilyn Brill Donna & Dick Constant Diane Donato Roy Fontaine Tom Gibson Wayne McDiffett Matt Roberts Ryan Sabo John Tonzetich JeffTrop

Allen Schweinsberg, Site/Stewardship Chair Geoff Goodenow, Coordinator Diane Donato, Editor Patricia Arduini, Facebook and Webmaster

for your calendar

the short list of public events; details for many listed inside

March 26: Spring cleanup at Dale's Ridge; 9 amnoon; rain date is April 2
March 30, 7 pm: Bull Run Greenway - Master Plan Presentation
Throughout April into May: Caring for Communities
April 2: Country Farm and Home Open House at east end of Mifflinburg
April 5-8: Bucknell Sustainability
Symposium. For details go to: http://www.bucknell.edu/
SustainabilitySymposium
April 7, 7 pm: Buffalo Creek Watershed
Alliance annual meeting. Union County
Govt. Center

April 17, 1 pm: Highway cleanup **May 4, 5:30 pm:** Linn Conservancy annual banquet with PA DCNR Secretary Cindy Adams Dunn

May 7: Central PA Native Plant Festival Boalsburg Military Museum, Rt 322 Business, Boalsburg, PA

June 2 through June 30: Plein Air Art exhibit at The Public Library of Union County June 5, 1 pm: Highway cleanup

August 21, 1 pm: Highway cleanup

Seven Mountains Audubon Society first Saturday walks and monthly meetings (3rd Wed.). Visit www.sevenmountainsaudubon.org for details.

"Few eyes see, and few minds understand. Through this want of observation and knowledge the world suffers immense loss." Carl Linnaeus from *Forest Unseen* epilogue

Adopt-A-Highway Cleanups Scheduled

The Conservancy is responsible for a 2-mile stretch of state highway beginning at the north side of the Penns Creek bridge on Rte 104 south of Mifflinburg. We follow Penns Creek upstream (west) to the Limestone Township picnic pavilion (meeting place for the event) then turn north to where the road intersects with the White Springs Road.

You'll enjoy this scenic location along Penns Creek. Look for some wildflowers and maybe spot a Bald Eagle, an osprey or blue heron hunting along the waterway. The following are the dates (all Sundays) for the events: April 17, June 5, August 21, and October 16. Meet at 1 pm at the location noted above. If you would like to help, please contact our office by phone at 570-524-8666 or email linn@ptd.net to register. If you need more information check our website or contact the office.

Spring Cleanup at Dale/Engle/Walker If you can assist with our spring cleanup at Dale's Ridge on Saturday, March 26 from 9 am until noon, please contact Jeanette Lasansky at lasansky@bucknell.edu by March 23. Your email will help us in our planning. Our rain date is April 2 in the same time slot.

Lewisburg Parks & Bull Run Greenway -Master Plan Presentation

Public Meeting March 30, 2016 - 7 p.m. William Cameron Fire Hall N. 5th Street and Buffalo Road Members of the Linn Conservancy and all interested persons are invited to a special meeting presenting the Lewisburg Parks & Bull Run Greenway Master Plan. The meeting will solicit public comment on the plan, as well as present an early implementation project.

The proposed project will serve as a model for best management practices, integrating recreation and active/healthy living, along with stream restoration, storm water management, water quality improvement, and habitat enhancement.

Matt Roberts Joins Conservancy Board

Matt Roberts, a graduate of both Lewisburg High School and Bucknell University, has joined the Linn Conservancy board of directors.

As an avid waterfowler Matt spent much of his earlier years in ponds, swamps, and creeks and along the Susquehanna River. These experiences served him well as his first real job was working for Penn State Extension as a West Nile Virus technician. He next joined the PA Game Commission (PGC) at Middle Creek Wildlife Management Area where he participated in studies of morning doves, resident geese, and tundra swans.

Matt's success at trapping tundra swans led him to the Long Point Waterfowl and Research Foundation in Ontario, Canada, where he worked alongside a graduate student studying the effects of waterfowl on mussel populations. This student introduced him to another agency called Delta Waterfowl. Matt spent the next year between Manitoba and North Dakota working with a doctoral student studying the hatching synchrony of ducks.

Working as a technician for the Canadian Wildlife Service took Matt to the Queen Maud Gulf, half way between the Arctic Ocean and Arctic Circle. It contains the largest breeding population of Ross and Snow Geese in the world. In the Gulf Matt assisted a post-graduate student working on a population dynamics study.

Matt then returned to Lewisburg and shortly after, in 2004, started his own business, Keystone Pallet and Recycling (KPR). Matt still helps the PGC with small projects and currently serves as a team leader for the PA Fish and Boat's Timber Rattlesnake Assessment Program (TRAP).

Matt resides in Winfield with his wife and two children. They own a property with woodlands, a pond and many acres, which they have seeded in wildflowers thus enhancing wildlife habitat. Matt says the Conservancy's mission is a good fit with his interests. We are pleased to have this avid outdoorsman and local businessman as a member of our board of directors.

president's message connecting partners/linking landscapes

Shikellamy Bluffs Acquisition: Grant Received January 2016

Dear Linn Conservancy Members and Supporters,

We are thrilled to announce that the Linn Conservancy's acquisition of the Shikellamy Bluffs property has reached a very important milestone. We learned from State Senator Gene Yaw's office in February that the PA Dept. of Conservation and Natural Resources (DCNR) has awarded the Conservancy a significant grant to help us complete payment on the 36-acre Shikellamy Bluffs property in southern Union County, which we purchased in November 2015.

The Shikellamy Bluffs acquisition is a product of our Linking Landscapes Initiative—the Conservancy's vision for

preserving or establishing connectivity of natural spaces throughout



A kayaker paddles past Shikellamy Bluffs as seen from Northumberland.

the area. The board officially adopted Linking Landscapes over two years ago. At about the same time we became aware that this ecologically significant property, which is contiguous to Shikellamy State Park and overlooks the confluence of the north and west branches of the Susquehanna River, was being offered for sale.

Trish Carothers, Susquehanna Greenways Project coordinator, and Union County Planning Director Shawn McLaughlin brought the property to our attention and prompted the Conservancy to acquire the land. Shawn then took the lead in helping us prepare applications for state grants. His knowledge of the process and experience in addressing all elements of the applications were invaluable to us.

In addition to the Union County Planning Department and the Susquehanna Greenway Partnership, we received invaluable support and guidance from the Union County Commissioners, the Degenstein Foundation, PPL Electric Utilities, and the Union Township Supervisors. We also worked closely with State legislators Gene Yaw and Fred Keller, Coldwell Banker Penn One Real Estate, and Mifflinburg Bank & Trust, which provided us with a bridge



A stand of ferns in Shikellamy Bluffs

loan that was essential to the acquisition. We also thank our attorney Tom Clark and his staff for their work in realizing the purchase.

Once we have received our grant monies from DCNR, we will be in a position to repay our bank loan and give the property to the PA Bureau of State Parks for addition to the Shikellamy State Park. We will celebrate in a more public way at that time and look forward to sharing with all of you this exciting landmark in the history of the Linn Conservancy. Thank you all for taking this journey with us.

Susan Warner-Mills, President

Annual Meeting Program Will Focus On Eel and Mussel Relationship

The Buffalo Creek Watershed Alliance (BCWA), of the Linn Conservancy, is pleased to announce that Dr Sean Reese, Aquatic Biologist with the Bucknell Center for Sustainability and the Environment, will make a presentation on eels and mussels, assisted by Julie Devers of the US Fish and Wildlife Service. The meeting is open to the public and will take place on Thursday, April 7, at 7 p.m. at the Union County Government Center at 155 N. 15th Street in Lewisburg. Both researchers are very much engaged in studying the eel and mussel relationship, as well as the attempted repopulation of eels in Buffalo Creek and Pine Creek.

Eels and mussels have a critical symbiotic relationship as eels are essential for disbursing fertilized mussel eggs that are caught in the gills of the eel. The Conowingo Dam, built in Maryland in the 1920s, and three other dams built near Harrisburg, totally blocked ocean going fish and eels passage for several decades, and even now that those dams are required to allow ocean going and returning fish and eel passage, the numbers demonstrate that they don't. As a result, the average age of a mussel, the vacuum cleaners of all bodies of water, is 70 to 90 years, and they are dying out.

Searching for a remedy, institutions and volunteers are gathering young eels at the base of the Conowingo Dam and transporting them to the Buffalo Creek and Pine Creek watersheds. And now that the eels are maturing and doing well in these areas, the critical question remains, "Are the transplanted eels successful in assisting the production of young mussels in Buffalo and Pine Creeks?" Come to the BCWA Annual Meeting on April 7 to find out.

Tali MacArthur Joins BCWA Board

Tali MacArthur recently moved to Lewisburg from Philadelphia. She spent 12 years working for the New Jersey Department of Environmental Protection, first in Coastal Zone Management, then in the Office of Organizational Training and Development, and finally in the Office of Watershed Management. She has served on the Boards of both the New Jersey and Greater Philadelphia chapters of the Society of Women Environmental Professionals. Tali has recently accepted a position with Trout Unlimited in its Bellefonte, PA, office. She looks forward to working with the Conservancy's education/pr committee, contributing her expertise in membership and development to the BCWA and also to learning more about the environmental and conservation issues of concern in her new watershed and community.

Conservation Union Filling a Need

In March, the Conservation Union held its fourth meeting. Organized as a result of the vision of Conservancy board member Ryan Sabo, the CU was formed as a means of encouraging discussion and information exchange between area-wide conservation minded non-profit groups and government agencies.

Such exchanges function to increase cooperative efforts by helping to identify similarities and overlaps in project goals. In doing so, participating groups can discover previously unanticipated means to partner with one another toward accomplishing those goals. The Conservation Union has no formal status, no governing board, no dues. It is not a group united in any way to be an advocate on specific issues.

To date, participation has included representatives from over 25 local and state government agencies and non-profit groups. Much has already been gained by participants and, as envisioned from the start, meetings will likely be suspended through the busy summer months when field projects are underway.

Our Business Partners for 2016

We thank these local businesses that joined us in supporting our Business Partner card that was enclosed with your membership materials sent to you in November. Each offers a specific discount to Conservancy members on particular items. Please patronize these businesses and thank them for their support of the Conservancy's mission.

In Montandon: Bertoni's Pizza, just east of the railroad crossing; Ard's Farm Market, Rte 45 west of Lewisburg; in Lewisburg: Cherry Alley Café, Lewisburg Studio, Vargo Outdoors, Canoe Susquehanna; in Middleburg: Shaffer Landscapes, Inc.

Plein Air Event: Creating Art in the Great Outdoors

The Linn Conservancy, partnering with the Lewisburg Arts Council and the Artists' Guild of Lewisburg, is sponsoring its third annual Plein Air Event on Sunday, April 24, 2016. Artists and plein air enthusiasts of all ages and abilities are invited to capture the beauty of nature at three Conservancy easement locations—the Dale/Engle/ Walker (D/E/W) property, the Koons property in Mifflinburg, and the newest land acquisition for the Linn Conservancy, Shikellamy Bluffs in Union Township. (The Shikellamy State Park overlook is open especially for the event courtesy of the Dept. of Conservation and Natural Resources and PA Bureau of State Parks.)

"Plein air is painting done outside, rather than in a studio," says Marilyn Brill, the Conservancy chair of the event. "The goal of this event is to preserve, with our artwork, a present moment at various Linn Conservancy sites. In sharing the work we create we seek to build a community of artists and citizens passionate about the preservation of these sites for future generations," she says.

Each of the sites will be accessible from 9 a.m. to 4 p.m. Artists work at their chosen locations, staying in one place or traveling to different

locations. Volunteers will be posted at each site to assist artists.

Award winning artist Robert Hughes will present an optional Plein Air Workshop at the Dale/Engle/



Plein air artist Robert Hughes captured the Susquehanna's west bank near Harrisburg.



Northumberland, the North Branch of the Susquehanna, and Packer Island are depicted in this painting by Robert Hughes. Plain Air Event participants working at Shikellamy Bluffs will have the same view.

Walker House from 9 a.m. to 11 a.m. The workshop is free, but registration is required. To register for the workshop call Vicki Heberlig at 570-523-3128 or email lgbartsfestivalworkshop@gmail.com.

A reception will be held at the Dale/Engle/Walker property from 4 p.m. to 6 p.m. Artists are encouraged to bring their artwork back to the reception to share with others, even if it isn't completed.

During the week of April 25 to May 1, Plein Air artists are welcome to visit any of the

Artists of all ages and skill levels are invited to participate in the Plein Air Art Event.

> Conservancy's public conservation sites, including Glacier Pools Preserve in Lycoming County, Shamokin Mountain Trail off Stein Lane south of Lewisburg, the D/E/W property, and the Koons Trail property.

The plein air artwork created on April 24 and during the week following will be displayed at The Public Library for Union County during the month of June. An opening reception at the library will be held June 2, from 6 p.m. to 8 p.m. All Linn members and the general public are invited to join us to enjoy the artwork created at the Linn sites.

For further information, including artist guidelines, directions to the sites, and general information, go to www.lewisburgartscouncil.com or www.linnconservancy.org. Information will also be available at Brushstrokes and Faustina Gallery in Lewisburg.

CONSERVANCY'S ANNUAL DINNER Wednesday, May 4

This year we will return to the Shade Mountain Winery for our annual dinner. Join us on Wednesday, May 4, at this delightful setting overlooking the vineyards and landscape of Snyder County. Social time featuring Shade Mountain wines, hors d'oeuvres and raffle will begin at 5:30 p.m. with formal festivities kicking off at 6:15 and dinner at 6:45.

Again this year, S&M Caterers of Mifflinburg will provide our buffet which will include a vegetarian selection. Following dinner, PA Department of Conservation and Natural Resources Secretary Cindy Adams Dunn will speak. Please join us for a most enjoyable and informative evening.

Shade Mountain Vineyard/Winery is located 6 miles south of Mifflinburg on Rte 104 between Penns Creek and Middleburg. The street address is 16140 Pa Rte 104, Middleburg, PA.

Bring a Guest: We encourage members to bring a non-member guest to introduce him/her to the Conservancy. We offer you a 20% discount on your guest's ticket. You will find a reservation form inserted within your newsletter or as a separate attachment if you are receiving this newsletter

electronically. Please return it with your payment before **Friday**, **April 22**.

If you would like to donate an item to our banquet auction, please contact Pattie Arduini asap to let her know what you will be donating and to arrange for pick up or delivery. Her email is pattiearduini@yahoo.com. Thank you.

Linn Conservancy 2015 In-kind Contributions

Being a largely volunteer organization, the Linn Conservancy benefits tremendously from the many hours, miles, and other means by which folks make inkind support of our mission. Although volunteers do their best at recording these data, many additional hours and in-kind services have gone unrecorded. Thanks for tracking your in-kind as best you can. Judy Ellis provided our in-kind report for 2015 summarized as follows: 1737.45 hours = \$39,179; 2914 miles = \$1719.26; other = \$1812; Total in-kind value = \$42,710.

This grand total far exceeds the amount of the annual budget of the Linn Conservancy. Many thanks for the time, talent, and dedication of these volunteers, which include fifteen board members, numerous committee persons and countless special project volunteers. These hours do not include the many volunteer hours that are donated to Buffalo Creek Watershed Alliance (BCWA), a subsidiary of the Conservancy.

Refurbishing DRT Bluebird Boxes

by Alex Spiro, Lewisburg High School Senior

Hiking along the Dale's Ridge Trail, you may notice a few red bluebird boxes scattered alongside the path. Looking for a community-oriented senior project this year, I took the responsibility of repairing or rebuilding the old bluebird boxes that had been by the trail just this past summer.

Drawing from little to no experience with carpentry, I had to put most of my time into learning basic building skills and taking precise measurements. Overall, acquiring the tools and resources I needed was a breeze and it really taught me about the logistics and financial planning that needs to be considered when taking on a project to this scale. When renovating the bluebird boxes, I made sure to give them sturdier posts and a new coat of stain as well as replacing any damage inside and outside the box. Furthermore, I was able to learn the process of building bluebird boxes by heart and I gained this valuable skill for future reference.

Working toward such a charitable goal for such a charitable organization was a very humbling experience that isn't often shared. Because I have such a passion

for the environment and the wildlife in Pennsylvania, working to help protect it was a fulfilling choice for my senior project and it's one that I will not easily forget.

Being a graduating senior in Lewisburg High School, I am constantly looking for experiences to further my education and indicators of what future passions I may want to pursue. Working with the Linn Conservancy has accomplished both those goals and has opened my eyes to just how much change one person can make with just a little effort. If you do happen to stop by the Dale/Engle/Walker property, make sure to keep an eye out for any bluebirds nesting in their boxes alongside the trail. With the help of the Linn Conservancy and community members who are dedicated to local wildlife conservation, the Dale's Ridge area will become a bird watching wonderland during these next few months of Spring.



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Caring for Communities: An Earth Month Celebration! Presented by the Merrill Linn Conservancy and Buffalo Creek Watershed Alliance

Caring for Communities, a series of fun, familyoriented events on weekends in April into May, explores



critical environmental issues affecting the sustainability and well being of our communities. This year we will hike trails, visit farms, paddle local waterways, create art outdoors, learn about renewable energy and much more. Our theme this year: **Meet Me at the River.**

Thursday, March 31

7:10 and 7:40 am: WKOK 1070 AM live talk show

On the Mark. Tune in to the WKOK Sunrise segments to hear host Mark Lawrence talk with Linn Conservancy board members about collaborating to protect the Susquehanna, how the Conservancy's Linking Landscapes Initiative is evolving, and what the Conservancy's Shikellamy Bluffs acquisition will mean for wildlife in the area.

Saturday, April 2

2 pm: Nature Walk at Wild Goose Farm



Wild Goose Farm naturalists will take participants of all ages on a walk through Wild Goose Farm's wooded nature trails, looking at animal habitats and seeking out the best places to find wild

mushrooms. At the end of the walk, learn how to cultivate shiitake or oyster mushrooms in your own backyard. This is a family-owned and operated membership organization dedicated to teaching and learning about healthful and sustainable living. Address: 2099 Beaver Run Road, 6 miles west of Lewisburg.

Tuesday, April 5 7:00 pm: Movie at the Campus Theatre in

Lewisburg *Flowers of Freedom* follows the story of a group of women in the Kyrgyz Republic as they seek justice related to cyanide poisoning linked to a gold mining operation. Sponsored by the Bucknell Center for Sustainability and the Environment as part of its Sustainability Symposium. \$2 admission.

Thursday, April 7 7 pm: Buffalo Creek Watershed Alliance Annual Meeting–Presentation

Dr. Sean Reese is the featured speaker at the BCWA's annual meeting. Dr. Reese will talk about the importance of eels to mussels and a program being conducted by State and volunteer agencies to bring immature eels to Buffalo and Pine Creeks from the bottom of the Conowingo Dam. The meeting will be held at the Union County Government Center, 155 N. 15 Street, Lewisburg.

Saturday, April 9

1 pm: Buffalo Creek Canoe/Kayak Adventure

Sponsored by the Buffalo Creek Watershed Alliance and led by Canoe Susquehanna, with reservation and fee required. Paddling route and shuttle plan to be determined based on stream and weather conditions. Look for details and register online (PaddleHappy.com) or call 570-524-7692.

8 pm: Owl Prowl and Astronomy Night

Mifflinburg teacher Joe Southerton will lead the owl walk along a portion of Dale's Ridge Trail near Buffalo Creek. At 9 pm, Bucknell University astronomers will conduct an astronomy observation. Meet at the Dale's Ridge Trail parking lot for the Owl Prowl or at the Dale/Engle/Walker House for the stargazing. 1471 Strawbridge Road off Route 192, west of Lewisburg. Follow brown. PennDOT signs.

Sunday, April 10 1 pm: Tour of Chillisquaque Creek Natural Area and Constructed Wetlands

Bucknell University purchased this Montour County property several years ago to preserve its pristine qualities and serve

as a teaching ground for biology and environmental students. The wetlands, which filters runoff into Chillisquaque Creek, was built on neighboring property owned by Linn Conservancy board member Tom Gibson and his wife Jamie Hendry.



We'll hike the trail around the preserve and then walk over to the wetlands, accompanied by experts from Bucknell, government agencies that built the wetlands, and the Chillisquaque/ Limestone Run Watershed Association. The Gibson-Hendry property is located at 2820 Mexico Road, Milton. The Chillisquaque Creek Natural Area is a few hundred vards east of that on the right.

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Caring for Communities continued from page 7

Saturday, April 16

10 am: Owens Farm Tour See how this 112-acre organic farm operates in raising sheep, hogs, horses, chickens, and bees and learn about the sustainable practices they employ. Owners David and Caroline Owens will lead the tour. Address: 2611 Mile Post Road, Sunbury, PA 17801. Between Sunbury and Danville.

Sunday, April 17

1 pm: Caring for Communities Bicycle Ride

Led by bike enthusiast Tom Gibson on the Conservancy's Rural Routes and the new Buffalo Valley Rail Trail. Routes will be available for two levels of experience, 15 miles and 30 miles. Park at the Dale/Engle/Walker House and meet at the Dale's Ridge Trail parking lot. 1471 Strawbridge Road off Route 192, west of Lewisburg

Saturday, April 23

8:30 am-12:30 pm: "New Day Dawning" Renewable Energy Workshop

Sponsored by the Rivertown Coalition at St. Paul's UCC Church, 400 N. Market St., Selinsgrove. Listen to speakers Peter Jansson, Mark Utz, and Tony Engelke talk about renewable, geothermal, and solar energy, and then network with community activists.

Sunday, April 24

9 am: Plein Air Art Event

Artists will gather at three Linn Conservancy conservation easement sites to capture their beauty through artwork that will be displayed at The Public Library for Union County in June. The sites include the Dale/Engle/Walker House and Dale's Ridge Trail, the Koons property in Mifflinburg, and the new Shikellamy Bluffs property adjacent to Shikellamy



Robert Hughes

State Park. The Park is open for this event courtesy of the Dept. of Conservation and Natural Resources and the PA Bureau of State Parks. Local artist Robert Hughes will conduct a plein air workshop at the Dale/Engle/Walker House at 9 am; a reception will be held there at 4 pm. Space at the workshop is limited and registration is required. Email Ibgartsfestivalworkshops@gmail.com or call Vicki Heberlig at 570-523-3128 to register.

1 pm: Buffalo Creek Canoe/Kayak Adventure

Sponsored by the Buffalo Creek Watershed Alliance and led by Canoe Susquehanna, with reservation and fee required. Paddling route and shuttle plan to be determined based on stream and weather conditions. Look for details and register online (PaddleHappy.com) or call 570-524-7692.

Friday April 29

It's Arbor Day! Join the Lewisburg Shade Tree Commission for their tree-related events, including a treeplanting ceremony in Lewisburg Area Recreation Park at St. Mary Street. Further information will be posted as it becomes available.

Saturday, April 30

10 am: Hike at Glacier Pools Preserve in

Lycoming County This is a 273-acre island of mature trees, wildflower meadows, and vernal pools. The property contains a diverse mixture of deciduous and evergreen trees and vernal pools (at least 18) that teem with amphibians. The property's High Field Trail offers a spectacular view to the north. Owner Michael Gross will lead the hike. Address: 757 Pine Tree Road, Hughesville, PA, northwest of Picture Rocks. For directions and more information visit www.glacierpoolspreserve.com. To car pool, meet at 9:00 am at the Ben Franklin and Tractor Supply stores parking lot at the Route 642 intersection off Route 147 near Milton.

Sunday, May 1 1 pm: Shikellamy Bluffs Hike The Linn Conservancy recently purchased a 36-acre property adjacent to Shikellamy State Park in Union County and will soon convey it to the Pennsylvania State



Parks to expand and further protect the park. We will hike the trails through the park and discuss the implications of this exciting development. Lewisburg native Kim Mattern will share his expertise on Native Americans and their history in the area.

1 pm: Susquehanna River Canoe/Kayak Trip

Sponsored by the Linn Conservancy, this trip will take us on the river from Milton State Park to Chillisquaque Creek near Lewisburg. Led by Canoe Susquehanna with reservation and fee required. Look for details and register online (PaddleHappy.com) or call 570-524-7692.

Wednesday, May 4

5:30 pm: Merrill Linn Conservancy Annual Banquet at Shade Mountain Winery The public is invited. The event begins at 5:30 pm with hors d'oeuvres and wine. The formal program begins at 6:15, followed by a buffet dinner at 6:45 pm. To register call 570-524-8666.

Saturday, May 7

1 pm: Buffalo Creek Canoe/Kayak Adventure

Sponsored by the Buffalo Creek Watershed Alliance and led by Canoe Susquehanna, with reservation and fee required. Paddling route and shuttle plan to be determined based on stream and weather conditions. Look for details and register online (PaddleHappy.com) or call 570-524-7692.

SPRING EPHEMERALS

by John Tonzetich, Linn Conservancy Board Member



Erythronium (trout lily)

and then senesce into summer dormancy. Our area is home to at least 25 of these species, some of the more familiar being Dutchman's breeches, spring beauty, trout

In the early spring just before snow melt an array of delicate and attractive wildflowers begin to color the forest floor long before the trees become flush with leaves. These perennial herbaceous species are termed spring ephemerals since many complete their seasonal growth and reproduction within two months

Although true spring ephemerals die back in early summer, some early bloomers (wild ginger, trillium, bloodroot) remain in leaf well into summer and sustain themselves under low light by increasing leaf size and thickness.

This early rapid vegetative growth must also be accompanied by flowering and seed production, both of which have considerable energy demands. The reproductive process is reflected in a great variety of flower shapes, colors, and scents, reflecting the urgency to attract pollinators at a time of year when cool temperatures limit their numbers. Bumble bees are just becoming active at temperatures in the low forties, followed by solitary native bees and hover flies.

"...what unique adaptations characterize these species, allowing them to grow, flower and seed in such a short window of time?"

lilies, toothwort, Virginia bluebells and wood anemones.

We may ask what unique adaptations characterize these species, allowing them to grow, flower and seed in such a short window of time? Their growth begins at low temperatures and progresses through decreasing amounts of light as the forest canopy develops. After the major brunt of winter cold, they begin to emerge in early March, utilizing the stored food reserves in their underground structures (roots,

rhizomes, corms and bulbs) at a rapid rate. The result is a rapid growth of shoots, allowing the plants to begin capturing light as soon as possible. By early May only ten percent of the light will be available.

With the development of leaves the plants further generate a high photosynthetic rate to replenish food reserves in the underground structures for the next year.



Bloodroot

Skunk cabbage generates a high metabolic rate, melting the ambient snow and first produces a flower with a putrid odor to attract flies. Many white, yellow and pink wildflowers have ultraviolet absorbing nectar guides on their petals, which are strongly visible to bees, guiding them to nectaries and pollen.



Toothwort

Mayapples and trout lilies produce large amount of pollen but little nectar.

Some species such as hepatica and bloodroot are capable of self-pollination in addition to cross-pollination as an assurance to set seed. Another successful reproductive strategy among some wildflowers such as trout lilies and mayapples is proliferation by spreading underground stems. These rhizomes and stolons send up shoots along their lengths

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Spring Ephemerals continued from page 9

producing large patches of interconnected plants, basically a clone. One often observes dense colonies of trout lilies along stream banks which have one leaf per shoot and no flower. These are plants developed from clonal growth and may constitute up to ninety percent of the colony. Plants developing from



Dutchman's breeches

seed may take up to seven years to flower.

Once pollination is achieved the manner of seed dispersal on the forest floor must be considered. Some plants produce fruits eaten by birds and small mammals which spread the seeds in their droppings. Many spring ephemerals rely on the ubiquitous presence of ants to spread their seed. The plants produce a soft, lipid-rich structure on the seed surface termed an elaiosome.

Ants are very attracted to this structure as a food source and carry the seed to their nests. The elaiosome is consumed and the hard seed is cast aside in an underground chamber, thus effectively planted and protected from seed eaters.

Our understanding of these interesting adaptations can further increase our fascination of these unique plants beyond their floral beauty and aid in their conservation. One can observe many of these spring ephemerals and early bloomers on the trails of several Linn Conservancy easements.



MaryAnn Bierly (center) at Conservancy Cross-Country Ski/Snowshoe Event



Keerthana Krishnarajah and Alexa Gorski as Smokey Bear



Barbara Spaventa at Cabin Fever Expo.

The Conservancy Participated in Expos, Festivals, and our Cross-country/Ski Event during the 2015-2016 winter season...now that spring is here let's enjoy our trails

As spring weather tempts us more and more to take to the outdoors, we want to remind you of the Conservancy maintained sites open for your enjoyment.

- Dale's Ridge Trail, two-mile trail, located on Dale/Engle/Walker Property near Lewisburg. Offers variety of habitats – floodplain, mature hardwoods, and former agricultural fields. Please keep dogs on leash at all times.
- Koons Trail, near the covered bridge on North 4th St. in Mifflinburg within the Buffalo Creek floodplain. About one mile; wildflowers and birds.
- Shamokin Mountain Trail, one-mile loop off Stein Lane in Union Twp., Union County.

Easy 45-minute walk with a couple of hills; nice views from state game lands southward of the Susquehanna Valley; forest and open fields.

- **Merrill Linn Trail**, a one-mile loop with access off the Mid-State Trail in secluded Mohn Mill Pond area of Bald Eagle State Forest in northwestern Union County. Noted for vernal pools with beautiful stands of ferns.
- **Glacier Pools Preserve**, near Picture Rocks, Lycoming County featuring vernal pools, woodlands and meadows; visit glacierpoolspreserve.com for directions and detailed information.

10 Linn Log Spring 2016

Welcome new members:

Danville: Bill Malone; Lewisburg: Joyce and Michael Wilson; Winfield: Diane and Brinkley Sprunt; Harrisburg: Bob Garrett

Thank yous:

DRT trail stewards; BU student work-study students Alexa and Keerthana for office assistance and event staffing; MaryAnn Bierly and RB Winter SP for snowshoes at the xc ski/snowshoe event at Dale's Ridge in January; Pat and Mike Arduini for warm fire and treats at the ski/snowshoe event; Kathy Rowe and Diane Donato for donations of snacks at the ski/snowshoe event; Annika Erikson for event and landscape photos.

Mr. and Mrs. Edward Kaye for a special donation to Shikellamy Bluffs project

Memorial gifts: From Larry and Nancy Shinn in memory of Warren Abrahamson, Sr; From John Carpenter in memory of Harry Adrian

Caring for Communities sponsors: Paul Brann, Susan Warner-Mills and Marilyn Brill, Bucknell Sustainability Center, Coles Hardware, Diane and Tony Donato, Lewisburg Garden Club, Lewisburg Studio, Meixell-Diehl Insurance, Wayne McDiffett, Mifflinburg Bank and Trust, Molesevich Environmental, Mondragon Bookstore, Natural Food and Garden, Sally Nyquist, Reptiland, PPL Electric Utilities, and Strosser Architecture.

Raise the Region Donors: Through this event, the Conservancy took in \$3825 (before any matching money awards) due to the generosity of 40 unique donors to our mission. This is our greatest return through the event in all of our years of participation. Thanks to all!

Have Your renewed for 2016? Thanks to all who have renewed membership support for 2016 and those who have donated through Raise the Region or otherwise to the Conservancy this year. If you have not yet renewed, please find a form below or do so through Paypal on our website.

MEMBERSHIP FORM (Detach and mail to Linn Conservancy, PO Box 501, Lewisburg, PA 17837)	
YES! I / we want to support the Linn Conservancy this year as a:	
Sponsor \$500 Supporter \$250	_ Friend \$100 Contributor \$50
Other	
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I am also adding \$ to support the Buffalo Creek Watershed Alliance (BCWA)	
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- 'Spring Ephemerals' by John Tonzetich
- Our Annual Banquet, May 4 with DCNR Secretary Cindy Dunn

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