



Spotlight on Spring: Bloodroot

—Tavia Cathcart



[Sanguinaria canadensis](#)

Other common names:

Indian Paint

Puccoon, Red Puccoon

Tetterwort (a "tetter" is a skin disease)

Red Root

Turmeric

Sweet Slumber (it was used to induce sleep)

Papaveraceae

Poppy Family

Description

When you hear the name Bloodroot, do you imagine it headlining a horror double-feature alongside *The Attack of the Killer Tomatoes*? You might even wonder if it is kin to the carnivorous Venus Flytrap. It may surprise you to discover that Bloodroot bears the purest snow-white petals, set off by a lemon yellow center of stamens. When seen during the last act of winter, the flower looks like a bright spotlight growing amongst decaying leaves. The well-disguised namesake is from the orange-red juice that "bleeds" when the rhizome is cut.

One of spring's earliest flowering plants (late March or early April), Bloodroot frequently can be found alone or in a colony in wooded areas, especially on gentle slopes and in rich forest duff. Rising when the earth is cold or even freezing, Bloodroot sends up a single lobed leaf wrapped like a blanket around the budded stem. This endearing action helps to protect the oncoming flower from spring's extreme weather tantrums. The baseball mitt-like leaf is rough, veiny, and waxy in texture. The underside has a silvery cast due to a covering of tiny hairs.

When the bud is ready to flower, the stalk pushes the bud just past the leaf so when the flower fully opens, only its face is exposed, with the remaining stalk completely cloaked. The 7 to 12 petals comprise a flower 1 to 3 inches across that is delicate and ephemeral, often lasting no more than a single day. A breeze or a spring shower can often dislodge the petals. After flowering, the palmately lobed leaves (looking like puzzle-pieces) greatly enlarge. The plant will go dormant by mid to late summer, depending on how much moisture it receives.

Inquisitive people may wonder how such an early bloomer can be pollinated, since it is too early for butterflies, moths, and most beetles? Have you guessed? The seeds are spread by ants. The Bloodroot seeds contain a fleshy organ that attracts the ants. The ants collect the seeds and carry them to their nests. Then, the fleshy sections are consumed, and the residual seed parts mix in with the nest debris. Fortunately, for both ant and Bloodroot, the ant nest flotsam provides a fertile environment for seed germination.

Facts & Folklore

The Latin *sanguis* means blood due to the red resin produced by cutting or bruising the root. In 1610, Native Americans were already using Bloodroot as a dye for baskets, weapons and implements, and clothing. The potent juice was used as body paint and to stain skin. Some tribes used the marks to indicate clan and identification marks, while other tribes used the sap for ceremonial purposes.

The root contains *sanguinarine*, a toxic alkaloid that is an anti-inflammatory, anti-fungal, and anti-bacterial agent. It has been used in toothpastes and mouthwashes to help remove plaque and gingivitis (historically, it was used in Colgate's Viadent brand). Modern day experiments show that sanguinarine may be effective in the treatment of skin cancers (and some small cell carcinomas), but disfigurement may result. Some studies demonstrate that when mixed with an infusion oil, this "black tar" targets cancerous epidermal cells without affecting healthy cells. Research is ongoing, but the U.S. [Food and Drug Administration](#) has listed some products containing Bloodroot as being among its "125 Fake Cancer 'Cures' Consumers Should Avoid."



Other historical medicinal uses for Bloodroot include treating coughs, sore throats, and problems with nasal passages; treatment for cramps and as a gastrointestinal aid; a blood purifier; and as a poultice to draw out thorns and slivers or applied to sores on the leg.

Bloodroot is not only a beautiful flower and a poisonous plant, but it wields power in the realm of folklore, too. It was considered a love medicine, much in demand by bachelors. The bachelor would rub the root on the palm of his hand and then gently touch the woman of his choice to attract her attention. As a nice coincidence or perhaps as a convenient tale, Bloodroot was credited as an aphrodisiac.

Native American stories tell us that a decoction of dried root was provided as a beauty aid for "women who are ugly." If you are ever unlucky enough to behold a dead person, consider that you can burn Bloodroot and use the smoke as a "wash" to help purify your spirit.

Although the brief life of the flower might seem Shakespearean, and though Bloodroot may inspire uses and stories worthy of high drama, there remains the simplest of joys when seeing the first pure white bloom of spring, especially when set against a dark and damp forest floor.

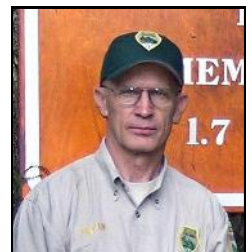
*Use caution when handling any part of the Bloodroot plant, it is **poisonous** and can cause skin irritation, especially when touching the root.*

Tavia Cathcart Brown is Executive Director of the Creasey Mahan Nature Preserve in Goshen, KY, near Louisville. An educator, writer and photographer, she co-authored *Wildflowers of Tennessee, the Ohio Valley and Southern Appalachians*. Tavia's specialty is "flora-lore", the mythology and medicinal uses of plants. She will present our Spring Rally's Friday evening program, "The Wonders of Wildflowers". She may be reached at Tavia@KYNaturePreserve.org or by calling Creasey Mahan Nature Preserve at (502) 228-4362.



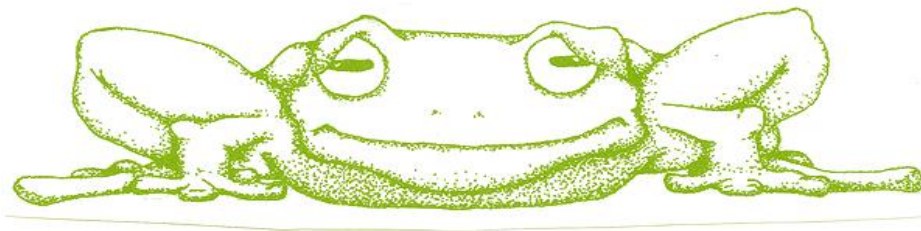
What's New in the Park?

Pat Gagan recently retired after serving as park manager of Roan Mountain State Park for the past five years and as a RMSP Ranger for the previous seven years. Pat was truly a great asset to the park. In addition, he was always very supportive of Friends of Roan Mountain, assisting us in ways too numerous to note with our Naturalists' Rallies and other projects. We extend our gratitude and best wishes to Pat.



NEW: Tennessee State Parks has implemented of a reservation system for campsites. You can reserve a campsite by visiting the park's office, calling during office hours or making them online. Roan Mountain State Park is currently in the process of completing campground renovations. They are still open to visitors, however campsites are only available on a first-come first-served basis until Memorial Day weekend 2013. <https://tnstateparks.itinio.com/roan-mountain>

You can view the park's event calendar on their website: <http://www.tn.gov/environment/parks/RoanMtn/docs/2013.pdf>



The list of animals that are succumbing to diseases keeps getting longer. Colony collapse disorder with honeybees, white-nose syndrome in bats and chytrid fungus and ranavirus in amphibians are but a few. Often times there is not much that you as a citizen can do to help other than reduce, reuse and recycle. And if you are not doing these things, then please reconsider. They are the easiest steps we can all take to make for a healthier, more sustainable earth and they can even save us money.

But there are ways to get more directly involved. Citizen science programs are becoming more popular and more available as scientists have realized we can't do it all! One of those programs is FrogWatch USA.

"FrogWatch USA is Association of Zoo's and Aquarium's flagship citizen science program that allows individuals and families to learn about the wetlands in their communities and help conserve amphibians by reporting the calls of local frogs and toads. For over ten years, volunteers have been trained to enter their FrogWatch USA information and ongoing analyses of these data have been used to help develop practical strategies for the conservation of these important species." - FrogWatch USA <http://>

www.aza.org/frogwatch/

Tennessee has 21 recorded frog species ranging from the very common Spring Peeper and American Toad, to the not uncommon, but rarely seen Eastern Narrow-mouthed Toad and Eastern Spadefoot. Not every species is found statewide though, narrowing the list down to less than 21 species of frog calls to learn. This is much more doable and easier to learn than bird calls!

Currently there are three FrogWatch USA chapters in the state: Nashville Zoo, Chattanooga Zoo and Knoxville Zoo. We are looking to add more chapters. If you think you might be interested in hosting a chapter, you can find the information on starting a chapter at <http://www.aza.org/host-a-frogwatch-chapter/>



You do not have to belong to a chapter to be a FrogWatch USA volunteer, but it sure is fun to learn, share and experience with other folks in your community.

For the Nashville Zoo FrogWatch Chapter, I have created a Facebook page and post many photos, facts and information. It is a public page and all are welcome to enjoy it. It can

be found at: <https://www.facebook.com/pages/FrogWatch-Nashville/418289561586319?fref=ts>

Lisa Powers is an award-winning nature photographer, writer and herpetologist/contract biologist. Lisa operates Froghaven Farm in Bon Aqua, TN, which offers educational programs, educational material design and web design.

Her program, *Eye of the Newt and Toe of the Frog: Tennessee's Spellbinding Amphibians!* will be presented Saturday, May 4th, 7:30 p.m., at the Roan Mountain State Park Conference Center.



Mark Your Calendar! — July 26 & 27
Fifth Annual Xtreme Roan Adventures – Kids Naturalists' Rally

This hands-on outdoor nature rally is hosted by *Friends of Roan Mountain* at Roan Mountain State Park in Roan Mountain, TN. There is an exciting lineup of nature activities for kids of all ages on Friday evening and throughout the day on Saturday.

On Friday, come learn about nocturnal animals and the starlit skies of the night! Find out “hoo-hoo” awakes as the sun sets and lurks in the woodlands and meadows during the night! Four outdoor night programs will be offered – moth identification workshop, bat slide show, owl prowl walk, and star viewing workshop.

- Larry McDaniel will use special night lights to attract moths, and show kids the diversity of moths that fill the night sky. How are butterflies and moths different? What do moths eat? What eats moths? Why are moths important in the ecosystem? Come find out for yourself!
- Connie Deegan will present a program on bats. How many pesky mosquitoes can a single bat eat in one night? What kind of bats live in our area? Where do they go during the day? Why are some bat populations declining? Come find out for yourself!
- Jacob Young and Mark Hopey will lead kids on a night walk through the park woodlands and listen for “Hoo-Hoo” else is out there! Kids will listen for owl, frog, insect and other animals vocalizing in the night. What owl is that calling? What different types of owls species live in our area? How do owls hunt for their food? Is that an insect or a frog vocalizing? What are these critters communicating about? Come find out for yourself!
- John Hay will use a telescope to show kids a map of the starry night sky. Have you ever wondered if you are looking at a star or planet? Have you wanted to know how to identify constellations of the night sky? What animals use the star patterns to get from one place to another? Come find out for yourself!

On Saturday, a number of nature programs will be offered including most of the following:

animal tracking, stream ecology, salamander hunt, bird mist netting and banding, scavenger hunt, orienteering, butterfly ecology, insect ecology, salamander and snake walk, skulls and skins, fossil casting, live reptiles and amphibians, live birds of prey, Appalachian Trail hike to Baa-tany Goat Project Site, trail mix making, and games and crafts.

Attendance is limited. **Registration deadline is July 22** and includes a free Earth Fare lunch. Late registration (after July 23) will *not* include lunch. Children must be accompanied by an adult. Dress for the outdoors; you will enjoy the outdoors a lot more! Bring sturdy closed toe shoes, old outdoor clothes, clothes for layering especially early in morning and during mountain hike along A.T., and a rain jacket.

Free camping is available at the group campsites in state park campground on Friday night. Space is limited; therefore, RSVP is required.

For a complete schedule and registration information and to RSVP camping, visit the following website:

<http://xtmeroanadventures.org/>.

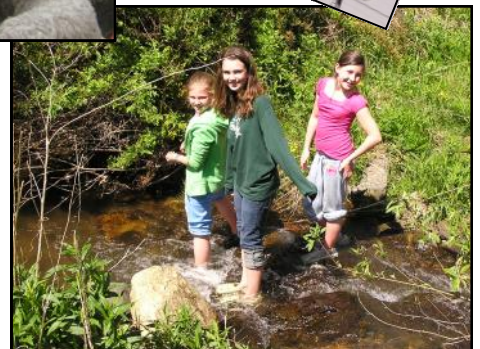
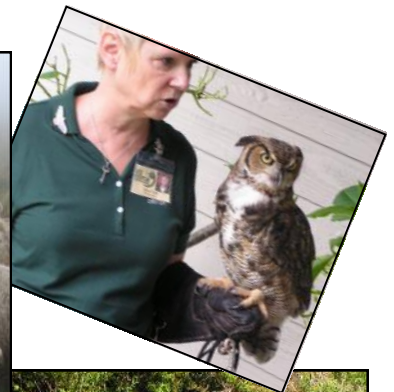
Sponsors: Friends of Roan Mountain, Roan Mountain State Park, Earth Fare, ETSU Department of Geosciences, ETSU Department of Biology, Gray Fossil Site, Elizabethton and Bristol Bird Clubs, Neves Family, Winged Deer Park, Bays Mountain Park, Steele Creek Park Nature Center, Baa-tany Goat Project, and US Forest Service, and several individual volunteer expert naturalists from the region.

For additional information:

Ken Turner – Ken@XtremeRoanAdventures.org

Larry McDaniel - larrycmcd@hotmail.com

Nora Schubert - nora_schubert1@hotmail.com





Winter Botany Below the Balds

— Jamey Donaldson

This year's Winter Naturalists' Rally trip to see Roan's unique Alder Bald was once again thwarted by the weather. Snow intensified during the morning presentations down in the park but we made the effort anyway. There were several inches of fresh snow in the road above the last houses. Our lead vehicle, a red 2007 Ford Focus, made it above Toms Branch to within one and a half miles of Carvers Gap before getting stuck in the road then getting stuck at the next pullout when turning around.

We all turned back at the pullout and headed down to Twin Springs for a "woody plants in winter" hike. We noted opposite vs. alternate branching patterns as the fewer tree species with opposite leaves are easier to remember: Maples, Ashes, Dogwoods, Caprifoliaceae (Honeysuckle family), and Buckeyes. You can remember this by the acronym MADCapBuck or MADCapHorse. We also observed bark characters such as "ski slopes" on Northern Red Oak, "X's" on White Ash, warts on Yellow Buckeye, smooth grey Beech bark (and pointed winter buds), and an apparent absence of mosses on a large Black Locust where all other tree species were well-cloaked with diverse mosses including habitat for the Roan Tardigrade (*Hypsibius roanensis*) which could also be called the Roan Water Bear or Roan Moss Piglet. It seems to be the most recent organism named for Roan Mountain in its species name (Nelson & McGlothlin 1993). We puzzled over separating Red and Sugar Maples but could easily pick out Striped Maples. A highlight of the day was spotting *Ostrya virginiana* which has at least a few common names: Ironwood, Blue Beech, and, my favorite, Hop Hornbeam, which describes both the similarity of its flowers to those of Hops (*Humulus*) and a former use of the wood in making ox yokes. The shredded look of its bark readily separates it from Birches and other members of Betulaceae (the Birch family). It seems much more common on the North Carolina side of the state line than on the Tennessee side.



Ken and Todd got a late start and were the wiser of the two groups. They turned around after watching a car slide and skid across the road. On their way back down the mountain, Ken interviewed Todd who owns the Baatany Goats and cares for them during the off-season. You can listen to the interview at www.roanmountainradio.com. Look for episode 6. The goat project would not be possible without Todd.

The Baatany Goat Project is gearing up for another year. The 6th Annual Herding of the Goats is set for Wednesdays, June 19 and September 11. We plan to continue browsing the Canada Blackberry and monitoring the vegetation changes as the Blackberry coverage decreases. Results continue to be encouraging: graminoids (= grasses + grass-like plants which include sedges and rushes) went from <40% to >98% cover in the goat browse plots from 2008-2012. However, it has been problematic monitoring Gray's Lily which is suffering from a leaf spot disease that causes extensive above ground die-off each summer meaning very few plants that flower make it all the way to mature fruit. Russell, an ETSU graduate student, has been studying the disease and is trying to wrap up his thesis project. Charlotte, a student at Emory and Henry College, will be taking over the Lily research this summer.

Brenda, a goat adopter and volunteer, has generously offered to create the new website for the Baatany Goat Project, www.baatany.org, which we hope to have up and running in the next several weeks. It will be more self-service in that you can see pictures of the individual goats and dogs, read about their personalities, pick out the one(s) you want to adopt, and pay the adoption fee online. There will also be vegetation study results and some slide shows including the "March of the Goats Across the Balds" as viewed from Harriet Bald near the Appalachian Trail – Grassy Ridge Trail fork. Many thanks to Brenda for setting up the new website.



Please join us for the 6th Annual Herding of the Goats and please consider adopting a goat and / or dog. We are experiencing the same funding difficulties that other conservation groups are facing. Funds have not been used for wages but are instead needed for simple expenses such as food, gas, equipment and supplies. This project can only continue with additional ongoing support from people and groups who love the Roan and are willing to invest in its future.



Roan Mountain is in my DNA!

— Aubrie Abernethy

As the Friends of Roan Mountain's new membership secretary, I thought it fitting to share why I love this wonderful mountain and am enthusiastic about sharing the "good tidings," as John Muir described, of this amazing place with folks near and far!

As a native Tennessean I grew up knowing about Roan Mountain with all its wonder tucked under rocks, submerged in the creeks and soaring the skies above. In fact, even before I was born, my parents, as teens, would make the slow ½ day long trek up to Roan Mountain for picnics with friends, basking in the sun as the cool breezes swept through their carefree years.

After they married and had a family, they would gather all four children in the station wagon and off we'd go, carrying food aplenty in joyful anticipation of the day ahead! We had "energy to burn" so we'd be off exploring after a quick lunch!

During my father's architectural career, he was asked to design the cabins that now dot the trails and nestle back into the woods. He was a good steward of Mother Earth and was cautious about not cutting any more trees than necessary as he "cozied" the cabins amongst the hemlocks. When I stay in the cabins to this day, it feels like home.

My mother's final wish was that, after her passing, the family gather at the overlook in the rhododendron gardens, read poetry and remember her life. That time for our family was a meaningful way to celebrate this strong and loving woman who taught us the importance of staying grounded.

My adult experiences of Roan Mountain continue to reinforce the importance and connection I have with this amazing place. At a church retreat held on Roan Mountain I met Jim, my husband. He and I enjoy returning to the place it all started for us as we attend the Naturalist Rallies, hike the trails, and bird with friends. The Rally speakers have stretched my imagination and tweaked my interests to learn more and always appreciate this natural wonder. Meeting fellow enthusiasts and sharing experiences joins us as a Roan Mountain family.

So you see...Roan Mountain is in my DNA...I love this place of unparalleled beauty and deep peace.

As your membership secretary, I encourage you to join us as a member.

Our mission is to foster greater awareness and understanding of the natural, historical and cultural significance of Roan Mountain. Members support the organization's interpretive and educational programs and activities which are designed to accommodate a wide range of interests. Membership is open to amateur naturalists, scientists, teachers, students and anyone who has an interest in and love for Roan Mountain!

The cost of Membership is a bargain!!

Family \$20 Individual \$15 Student \$10

Membership Benefits include:

- Free Programs at Rallies
- Free Hikes
- Newsletter
- Membership Card
- 10% Discount at Mahoney's Outfitters
- Volunteer Service Opportunities
- Fellowship and FUN!
- Support Scientific Research, Investigation and Preservation of The Roan

It is an honor to serve as your membership secretary. You may join online at the Friends of Roan Mountain Website using PayPal, or send your membership Application (found on line) and check to: Nancy Barrigar, Treasurer, 708 Allen Avenue, Elizabethton, TN 37643 or meet me at the Membership Table at the Spring Rally May 3-5, 2013!! Hope to see you there!



Anne Whittemore recently stepped down as Membership Secretary of FoRM. Anne, who

served for many years as our treasurer as well, always amazes us with her memory for names and faces at our rallies. She took a genuine, personal interest in our members. We sincerely thank Anne for her dedicated service. Anne will continue as our liaison to the Baatany Goat Project.

Between Friends

Deadline for Rally Meal Reservations – All dinner and lunch meals must be prepaid. If you plan to eat the catered dinner or purchase a bag lunch at the rally, you must send your check in advance. The deadline is **Tuesday, April 30th**. The reservation form can be found in the brochure or on our website. Mail your check and reservation form to Nancy Barrigar, 708 Allen Avenue, Elizabethton, TN 37643. We greatly appreciate your cooperation in helping us plan accurately!



Your guide to exploring the Jewel of the Southern Appalachian Mountains



Ken Turner wears many hats with Friends of Roan Mountain. Ken serves as Vice President on the Board of Directors. He is one of the directors of our Kid's Rally, **Xtreme Roan Adventures**. At our three other rallies, you'll often see Ken in the field, helping folks locate a field trip leader or the registration table or in the conference center helping with behind-the-scenes tasks. A very valuable role Ken plays is *promoter extraordinaire* of Friends of Roan Mountain. At the annual Rhododendron Festival, where he sets up a display, Ken is the friendly face of FoRM sharing his enthusiasm with festival attendees.

If you haven't discovered it yet, you must check out Ken's brainchild, [Roan Mountain Radio](#), where Ken conducts interviews with various FoRM leaders, RMSP personnel, and rally participants. These are fun, informative audio segments you can listen to online or download in MP3 format. Sign up for email notifications so you'll never miss a new episode. You'll find a link on the [FoRM website](#).

And when you see Ken, give him a well-deserved pat on the back for being a true friend of Roan Mountain!



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