



## An Homage to Southern Appalachian Biodiversity

— Dr. Andy Jones

While I've spent more of my life living in the Midwest than anywhere else, my childhood was spent in northeast Tennessee. I still claim the southern Appalachians as home, and it was in the southern Appalachians that I became a naturalist. I spent countless hours flipping over stream rocks for salamanders and flipping through field guides trying to put a name on everything I saw. Even as a kid I understood that we should revere the great biodiversity of the region.

You probably already know the superlatives that we use to brag about the diversity of the southern Appalachians: the greatest diversity of aquatic organisms in the USA, the world's greatest diversity of salamanders, tree diversity eclipsing all of Europe, etc. The region is also a biodiversity hotspot for millipedes, fungi, fish, and others. The salamander numbers are particularly compelling. In addition to being diverse, they are abundant in the region, with some authors estimating that by weight, there are more salamanders than all other vertebrates combined! Southern Appalachian salamanders are especially known for high endemism; that is, many species are only found in the southern Appalachians. Remarkably, quite a few species are restricted to single mountain ranges.

When it comes to birds, we don't have any bird

species endemic to the southern Appalachians, but many "northern" birds also nest in isolated pockets of appropriate habitat in the higher reaches of the Appalachian mountains. As a high school birder, I was amazed that I could see Carolina and Black-capped Chickadees on a single hike, depending on the elevation. And my first visit to the top of Mt. LeConte blew me away, seeing my first spruce-fir forest and hearing the calls of Golden-crowned Kinglets and Red-breasted Nuthatches. If you flip through your favorite bird field guide, you'll find more than two dozen northern species that also have a smaller presence in the southern Appalachians, adding to the already impressive breeding bird diversity in the region.



Black-throated Green Warbler

CC image by SilverLeapers, flickr

It is these southern outposts for northern species that I have been thinking about for the last few years. I'm eager to know where these birds were during the Pleistocene glaciations, when most of the places they call home were covered by a mile of ice. If you look at a map of where these northern birds breed and then superimpose a map of where the glaciers occurred, it is clear that they must have moved elsewhere if they were to survive. But where?

Did these bird species all retreat to refuges in the southern Appalachians? Or did they find refuges elsewhere?

We are able to poke and prod into their histories using DNA sequences. Samples from museum specimens give us the opportunity to travel back in time and see how

these bird species, and the ecological communities that they dwell in, responded to changing conditions. My recent research has been focused on Veery and Black-throated Green Warbler, looking into their evolutionary histories to understand how they shifted in response to glaciers. Along the way, my collaborators and I have recorded Veery songs throughout their range to understand how their songs differ through the southern Appalachians and throughout North America.

It has been nearly a year since I was last in the mountains, and a return visit is already overdue. The region's people, the food, the landscapes, and the biodiversity are calling me back. I look forward to sharing my research on the region's birds with you.

Dr. Andy Jones, a native of Kingsport, TN, has worked at the Cleveland Museum of Natural History for more than a decade. He holds the William A. and Nancy R. Klamm Endowed Chair of Ornithology as well as being the Director of Science, overseeing all museum activities in the Collections & Research Division. He will speak on the history of birds in the region, as uncovered by DNA sequences, in a talk entitled "Using Sequences, Songs, and Serendipity to Understand Eastern North American Birds" on Friday, Sept. 8th at 7:30 p.m. at the Roan Mountain State Park Conference Center.



## GIFTS & MEMORIALS

Friends of Roan Mountain gratefully acknowledges these charitable donations and gifts.

### **Donations:**

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Mindy Ignarri

### **Honoring Gabrielle Zeiger:**

Don Fisher

## **New Moths Identified at RMSP**

During the 2017 Kids Rally, Xtreme Roan Adventures, Larry McDaniel set up his moth sheet and light on Friday night. On Saturday morning he was rewarded by the presence of quite a few moths, ten of which are new to the species record for Roan Mountain State Park! One of those was a new species for Larry, an *Amphipoea* sp. - maybe *A. americana* - American Ear Moth. You can view Larry's moth photos taken in park from a link on our website:

<http://www.friendsofroanmtn.org/Species/species.htm>



### **Share *The Roan***

**Consider a gift membership in FoRM**

Click the Membership tab on our website at [www.friendsofroanmtn.org](http://www.friendsofroanmtn.org) or contact our Membership Secretary at [aabernethy@friendsofroanmtn.org](mailto:aabernethy@friendsofroanmtn.org).

# Death on Two Wings

- Marty Silver, Park Ranger, Warriors' Path State Park

A thin whistle from high in a cloudless spring sky, and the green meadow is suddenly quiet. A low booming hoot across the dusk, and the snowy forest is as still as death. Yes, death flies on two wings across our region's fields, forests, and wetlands.



**Sharp-Shinned Hawk**

Photo: Ranger Marty Silver

Raptors' "killing tools" include powerful talons and sharp hooked beaks. This Sharp-Shinned Hawk may be young, but he's already "armed and ready!"

In fact, nearly all of our native birds are killers and meat-eaters. Think of the countless caterpillars that are "meat" for each songbird nestling. Ponder those voracious chimney swifts, gobbling perhaps a third of their own weight in mosquitoes and gnats each evening!



Photo: Ranger Marty Silver

**Chickadee** - Nearly all birds are at least sometimes carnivorous. Check out the spider in this Carolina Chickadee's mouth!

Remember the ravens up on Roan Mountain hunting meadow voles. But the quintessential meat-eating birds are the raptors.

"Raptor" comes from the Latin *RAPERE* - to snatch up. Raptors are those birds that snatch and kill. In our region this select group of birds includes eagles, hawks, falcons, owls, osprey and (maybe) vultures. (Ornithologists studying vulture genetics a few years ago said that they were more closely related to storks than to raptors. But more recent genetic studies have put vultures back in the raptor group again!)

There's a special thrill to seeing or hearing one of our native raptors. And there's a reason why raptors are not a common sight. Consider: It takes many seeds and grasses to feed one deer mouse family. And it takes many deer mice to feed one barred owl family. And it takes plenty of tufted titmice to feed one cooper's hawk family. It takes plenty of



Photo: Ranger Marty Silver

**Black Vulture**



caterpillars and berries to feed one tufted titmouse family. And it takes plenty of tufted titmice to feed one cooper's hawk family. So obviously, top carnivores like raptors can't be too abundant, or they would starve.

Raptors are scarce, and thrilling. Raptors, like most predators, are also misunderstood and sometimes maligned. This is why many of our Tennessee State Parks use injured, non-releasable raptors as educational tools.

Children often tell me that raptors and other predators are "mean animals," because they kill cute little furry critters. Are they mean, or are they hungry? Also, imagine an earth without predators. We'd be overrun with herbivores, and the herbivores would soon die of starvation or disease. Raptors and other predators, like all living things, have an essential job in nature's balance. They are "nature's pest control."



Photo: Ranger Marty Silver

**Black Vulture** - Vultures are different - not "nature's pest control," but "nature's clean-up crew!"



Photo: Ranger Marty Silver

**Eastern Screech Owl** are our most common raptors, because they are small, tolerant of humans, and adaptable to changing habitats.

A job requires tools. A raptor "toolbox" includes tools for locating prey (well-tuned senses), tools for approaching their prey (wings and tail), and tools for killing and tearing their prey (talons and beak). Nearly all raptors have keen eyesight - from owl eyes that see in near-total darkness, to hawk eyes with extreme sensitivity to movement at great distances. Most raptors also have well-developed hearing - perhaps the champion is the barn owl, who can hear a rodent under the snow, calculate the exact location, and catch that rodent without ever seeing it! Raptors' flight methods vary. Falcons are built for speed. Owls have slow but silent flight. Vultures and buteo hawks have large wings to catch and ride the slightest air current. Accipiter hawks have long tails and relatively smaller wings so they can maneuver through dense thickets. All raptors have powerful talons for snatching (and killing), and hooked beaks for tearing flesh. A great horned owl's talons can squeeze with a force of almost 1,000 pounds per square inch - enough force to snap a raccoon's backbone with one squeeze!

One way to tell what raptors eat is by careful observation in the field. Another is to examine pellets. Many birds regurgitate indigestible portions of their food. (Have you ever seen a mockingbird spit up a pellet full of cherry pits?) Because raptors often swallow food in large chunks, their pellets are rich in identifiable bones. Check pellets from our native raptors and you'll find the indigestible remains of MANY creatures. Watch raptors at work and you'll spot even more. Our native raptors may eat moths, beetles, crayfish, fish, other birds, snakes, lizards, frogs, salamanders, and, of course, many species of small mammals. They may also eat larger mammals - for example, great horned owls are one of the few predators that seem to enjoy the taste of skunk. And don't forget about the vultures - their specialty is carrion.

Raptors are superbly designed with all the tools for their essential job. And raptors can remind us of our essential job as caretakers of their habitats...and ours. Raptors' tools for maintaining nature's balance are beak and talon, wing and eye. Our tools for resource protection are mind and strength and perseverance. If we choose to use these tools to protect our earth, we can insure that the raptors, the humans, indeed all of this earth's amazing life can survive and thrive.



Photo: Ranger Marty Silver

Keen eyes help **Red Tailed Hawks** find their prey from high perches and while soaring high above the fields.

**Ranger Marty Silver, from Warrior's Path State Park in Kingsport, TN, is a very popular environmental educator in our region who shares nature discovery and conservation awareness with over 30,000 students each year. He will present *Birds of Prey* at our Fall Rally on Saturday evening at 7:30.**

# Southern Appalachian Spruce Fir Forest

— Cade Campbell

*Civilization is not, as they often assume, the enslavement of a stable and constant earth. It is a state of mutual and interdependent cooperation between human animals, other animals, plants and soils, which may be disrupted at any moment by the failure of any of them.* - Aldo Leopold

There is a reason geography is so distinct in every region of the world. It is based on the environments which the geology, the native species, and damage done by humans give rise to. One type of forest that isn't as common in Southeastern North America is the subalpine forest. These habitats are very common across the rest of the world in chilly, mountainous regions, often giving way to enormous, snowy peaks that often represent the wild Rockies and the formidable Alps, or the forests of the Far North in America and places like the protected lands of Sweden or Norway.

All in all, there are lots of subalpine forests in the world. But very little of this forest actually holds a wide array of species. Billions of years ago, the Appalachian Mountain Chain was an expanse of the tallest mountains in the world, taller than today's Himalayas. The main theory of the remaining subalpine forest is that glaciers, over time, formed and moved along the mountaintops, which at that time, were alpine regions with plenty of permanent ice and cold temperatures. These glaciers slid down from the north, bringing with them seeds and spores from their birthplaces. Of course, it took a long while for the glaciers to melt, and as they did, they deposited the mud, debris, dead trees and carcasses of frozen animals that had been trapped within them, along with seeds of subalpine trees, shrubs and wildflowers, some almost identical to European species, as well as cold-loving birches, various wildflowers such as asters, bluets, and mosses. This gave rise to forests such as the Northern Hardwood and the rare Southern Appalachian Spruce-fir Forest. One reason the Spruce-fir Forest is so

endangered is that it is getting hammered by the fact that it is trapped atop the highest mountains to achieve the cold temperatures the ecosystem requires. There is nowhere for the Spruce-fir Forest to go. But to understand the seriousness of this dilemma, we must understand some of the residents of the forest. The Southern Appalachian Spruce-fir Forest pretty much has a specialized set of organisms that it hosts. The two main trees are Red Spruce (*Picea rubens*) which is found at its most southern range in North Georgia, and the Fraser Fir (*Abies fraseri*), which is endemic to the Southern Appalachian forests. However, this type of forest shares its bounty with adventurous Northern Hardwood animals and plants, typical southern species that colonize the forest through the foothills. Instead of the Eastern Gray Squirrel (*Sciurus carolinensis*), the North American Red Squirrel (*Tamiasciurus hudsonicus*) roams the forest. The reason for this shift is that true red squirrels feed on spruce and fir cones. They are much smaller than gray squirrels, and are aggressive, territorial and very colorful. Walking down a trail in the morning and evening, they can be heard communicating in the trees and be seen stuffing their cheeks full of pine, spruce, hemlock or fir seeds they pry from the cones they've hidden in massive caches, impaling mushrooms on a tree branch to dry, or raiding birds' nests in tree cavities. Another squirrel, the Carolina Flying Squirrel (*Glaucomys sabrinus coloratus*), takes the place of the common Southern Flying Squirrel (*Glaucomys volans*) in the spruce-fir forest as well. But unlike the Red Squirrel, which also has a range extending into the Northeast and eastern Canada, the Carolina Flying Squirrel is a subspecies of the Northern Flying Squirrel that only lives in the Southern Appalachian Spruce-Fir Forest. It is only able to thrive in an area that spans a few acres compared to most other endangered mammals. A whole host of shrews, each with a special ability to fill an ecological niche, also live in spruce fir forest.



Spruce-fir Forest needs cold winter temperatures to be successful in competing with Northern Hardwood trees, and to retain the proper climate for the animals, plants and fungus that live within.



The Smoky Shrew (*Sorex fumeus*) changes from brown to gray in the winter. The West Virginia Water Shrew (*Sorex palustris punctulatus*) lives only in the coldest mountain streams, diving in the water to hunt minnows, crayfish and dragonfly nymphs, using bubbles trapped in its thick fur to bring it back to the surface when it captures prey too large to subdue. It escapes predators by running across the surface of the water using special hairs on its back feet.

The Southern Bog Lemming (*Synaptomys cooperi*) is a species belonging to the famous lemming group that, contrary to its name, thrives in spruce-fir forest as much as mountain bogs. It is diurnal, and can be seen foraging and grazing in broad daylight in the forest, and is most often observed as it runs to its nest or burrow on the forest floor, especially around the sedges that grow there or in sunny glades or borders. Black bears are common in the forest, as well, and behave more like western populations at higher elevations. Mountain lions have been seen by several people in the forest, even on the trail cameras used to monitor invasive feral hogs and Russian boar. Russian boars are more of a problem in the spruce-fir forest, as they are wilder than simply “stray” domesticated pigs. All across the southern United States hunters have illegally introduced the Russian Boar, and they still are importing them secretly in livestock trailers. The Tennessee Wildlife Resources Agency offers a bounty for information leading to the discovery of a landowner who possesses boars imported from game farms or captured from the wild. Some records of wild Russian boars in North Georgia have documented individuals up to seven feet long that weight up to four hundred pounds. The young still retain the spotted pattern of Old World wild hogs, and adults cause excessive damage to native flora and fauna by making wallows and rooting. The spruce-fir forests are in particular danger, since they are already threatened and hard to find. Already, the side of Yellow Mountain in North Carolina has been overturned by these animals which regularly kill fawns and other prey up to the size of a large dog. And of course, invasive plants such as blackberries and knotweed also destroy parts of the forest.



Two female Ruby-throated Hummingbirds, *Archilochus colubris*, perching in a red spruce tree. This species, along with the Rufous Hummingbird, *Selasphorus rufus*, migrate in the summer and fall, respectively, over the mountains and through the spruce fir forest.

But some of the other native and endemic residents *are* birds. Large varieties of spring and fall warblers frequent the forest, many of which only have nesting sites in the Blue Ridge Mountains, though they migrate to and from South America every year to winter. The Golden-winged Warbler, one of these species, only nests in high-elevation heath balds, one of the spruce-fir forest’s sister ecosystems. The Northern Saw-whet Owl (*Aegolius acadicus*), like the Red Squirrel, only lives in the spruce-fir forest in the south, or even the Southern Appalachians. It’s much smaller than all the other native species of owls, smaller even than the tiny Eastern Screech Owl (*Megascops asio*). It feeds on mostly Deermice (*Peromyscus* sp.) and voles. The Saw-whet owl is named for its call, which sounded like the cross-cut saws of the loggers as they were being sharpened, a process known as whetting. The Horned Lark (*Eremophila alpestris*), a ground-dwelling bird with two crests emerging from its head, often takes shelter in the thick evergreen foliage of the spruce-fir forest. The Red Crossbill (*Loxia curvirostra*), a relative of the cardinal, often frequents the forest. It has an oddly-shaped beak used to husk seeds, which in fact, overlaps in the middle to give the colorful bird its name. A bird that is not limited to the spruce-fir

forest in the south is the Dark-eyed Junco (*Junco hyemalis*), or snowbird. It gets its second name from its nature of migrating to the south in decent flocks, and its ground-dwelling nature to crawl atop or close to the snow when it is present. In the southeastern United States, however, juncos can only nest in the high-elevation forests of the Blue Ridge.

North Carolina, Virginia and Tennessee, the main states that have Southern Appalachian Spruce-fir Forest have been named the first, second and third states for salamander diversity in the United States. The spruce-fir forest has less salamanders than

Northern Hardwood Forest, but it has some special residents. The Weller's Salamander, a species almost impossible to find outside the spruce-fir forest, is named in honor of the 18-year-old scientist Worth Hamilton Weller who died in pursuit of more specimens after discovering the salamander on Grandfather Mountain. The Yonahlossee Salamander (*Plethodon yonahlossee*) has been dubbed the 'most colorful native salamander' by some scientists. It can grow up to around six inches long and is a mixture of red, black and blue. Many spruce-fir salamanders, including the Blue Ridge Red Salamander (*Pseudotriton ruber schencki*) and Blue Ridge Spring Salamander (*Gyrinophilus porphyriticus danielsi*), and the Carolina Spring Salamander (*G. p. dunni*), are special Appalachian subspecies that can only be found in high-elevation springs, streams and seepages. A few snakes are found in the Spruce-fir Forest, but they are mostly small salamander-eaters such as the Ringneck Snake (*Diadophis punctatus*). There is also whole host of specialized arthropods that reside in the forest as well; certain moths and bees will only feed on the plants of the Spruce-fir Forest. And every time one plant species becomes extinct, so does its dependents. The spruce-fir moss spider (*Microhexura montivaga*), for example, is a relative of the tarantula that only lives in a tiny web only within a handful of moss species that grow on rocks in the Southern Appalachian Spruce-fir Forest.



The Weller's Salamander, a solemn symbol of a young scientist's devotion to his work.



*Laetiporus cincinnatus*, growing from an Eastern White Pine root on the ground, a growth pattern uncharacteristic of the genus, but it helps with the identification of the species.

The forest also hosts a wide variety of more northern mushrooms. Some of the more iconic species are the Fly Agaric (*Amanita muscaria*), a poisonous mushroom that is probably the most famous and most characteristic mushroom to most people. The conifer-feeding gourmet mushroom, the White-pored Chicken-of-the-Woods (*Laetiporus cincinnatus*) can be found in the Appalachians only in spruce-fir forests and forests with abundant pines. The Chaga Fungus (*Inonotus obliquus*) and the Tinder Polypore (*Fomes fomentarius*), though they grow on birches which aren't the most favored tree in the spruce-fir forest, have been used in the Far North as fire-starters for centuries. The spruce-fir forest, in all, is an endangered ecosystem, composed of endangered species or species that are about to become endangered. But that makes such a more appealing place to study and explore. We have such a great place on Roan Mountain and in the rest of the Southern Appalachians, that can be found nowhere else in the world, and I hope everyone reading this will get to enjoy the Southern Appalachian Spruce-fir Forest for a long time.

#### Works Cited

- Whitaker, John O., *National Audubon Society Field Guide to North American Mammals*, Revised Edition. Knopf, Alfred A. Chanticleer Press, Inc.
- Mitchell, Joe. Gibbons, Whit. *Salamanders of the Southeast*. University of Georgia Press 2010
- Species Database, *Friends of Roan Mountain*, <http://friendsofroanmtn.org/Species/species.htm>
- Spruce Fir Forest: Southern Blue Ridge Mountains, *North Carolina Wildlife* [http://www.ncwildlife.org/Portals/0/Conserving/documents/Mountains/SBR\\_Spruce\\_Fir.pdf](http://www.ncwildlife.org/Portals/0/Conserving/documents/Mountains/SBR_Spruce_Fir.pdf)
- Cathcart, Tavia. Horn, Dennis. *Wildflowers of Tennessee the Ohio Valley and the Southern Appalachians*. Hemmerly, Thomas. Lone Pine Publishing and the Tennessee Native Plant Society 2005
- Godfrey, Robert. Wooten, Jean. *Aquatic and Wetland Plants of the Southeastern United States*. University of Georgia Press 1981
- Frick-Ruppert, Jennifer. *Mountain Nature: A Seasonal Natural History of the Southern Appalachian Mountains*. The Univ. of North Carolina Press 2010
- Appalachian Blue-ridge Forests, *World Wildlife Federation*, <https://www.worldwildlife.org/ecoregions/na0403>

Cade Campbell is a Tennessee Volunteer Naturalist, a Boy Scout working toward Eagle Rank, an Exchange Place Junior Apprentice (or Living History Interpreter), a sophomore in high school and a rally field trip leader for Xtreme Roan Adventures.





## **What's New in the Park?**

### **Welcome Sunshine to RMSP Aviary**

The Roan Mountain State Park Aviary facility is now fully inhabited! Please welcome our newest raptor resident, "Sunshine" the Great Horned Owl. Sunshine is approximately 3 years old, and was injured when struck by a vehicle in West Tennessee. The accident left the owl completely blind for a few weeks and unable to fly due to a severely broken wing. Sunshine was rehabilitated by Park Rangers at David Crockett State Park in Lawrenceburg, TN, where she had to be force-fed by hand until she partially regained sight. Due to these injuries, Sunshine is unable to be released back into the wild and will have a permanent home here at the park aviary. Sunshine joins Barred Owls "Owl Capone" and "Shiloh" to complete the Roan Mountain State Park Owl family. Be sure to stop by and see them on your next visit to the park.



### **Mark Your Calendars for Fall Events**



The arrival of crisp, colorful autumn days also ensures the arrival of many visitors to our area, and Roan Mountain State Park celebrates the season with several special events. Cook up a pot of your secret recipe chili and compete for prizes at the Chili Cook-Off on October 7. Or browse through the craft vendors and enjoy some old-time music at the Autumn Harvest on October 14. And don't forget the Roan Mountain 10K race on November 4... register to run, or consider volunteering (please!). Last fall, F.O.R.M. volunteers really helped make the Roan Mountain 10K race a success. For more information on park events,

please visit our website. If you are interested in volunteering, please contact Park Ranger Meg Guy at [meg.guy@tn.gov](mailto:meg.guy@tn.gov).

## **ANNUAL MEETING**

The annual meeting of the Friends of Roan Mountain will be held during the Fall Naturalists' Rally on Saturday, September 9th, at 5:45 p.m. prior to the evening meal. At the meeting you will receive information regarding the activities, projects and finances of the organization. The election of board members will be held.

The following slate of names has been nominated for this year's election: Pam Baldwin, Gary Barrigar, Richard Broadwell, Ken Turner, and Anne Whittemore. Nominations from the floor may be made at the meeting.

Board meetings are scheduled as needed, generally a few weeks prior to the rallies. Any member of FORM is welcome to attend a board meeting or submit an item for the board's consideration by contacting the Friends of Roan Mountain president, Gary Barrigar, 423-543-7576, [gbarrigar@friendsofroanmtn.org](mailto:gbarrigar@friendsofroanmtn.org).

The annual meeting also provides an opportunity for the membership to give their input concerning the policies and activities of FORM. Any member wishing to submit an item for the agenda of the annual meeting may do so by contacting Gary Barrigar.



# Scenes from the 2017 Kid's Rally



"If you have worried about the future of naturalists and naturalists activities on Roan Mountain, don't. Last Saturday's Kids' Naturalist Rally, better known as Xtreme Roan Adventures, would convince anyone of the enduring fascination of the Roan for all ages. Had you been here you would have seen children of all ages eyeball to eyeball with snakes, stroking the feathers of a Red-tailed Hawk, snorkeling in Doe River for Hellbenders, sorting out the various swallowtail butterflies, and staring intently at a Great Horned Owl. The hills are alive with the sound of children delighting in an up-close and personal encounter with the natural world - a very special kind of music. Many thanks to Ken Turner and Larry McDaniel for their vision and hard work."

-- John Martin





# Between Friends

**Deadline for Fall Rally Meal Orders** – Payment for rally dinners and lunches must be received by Tuesday,



September 5th. 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.

**New! You can now register online. Follow the link on our website's homepage.**

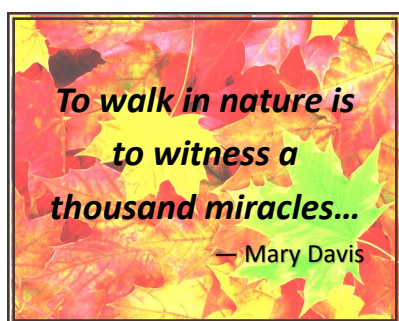


**Door Prizes** -- We gladly accept items donated for door prizes. These will be given away on Friday and Saturday prior to the evening programs. Ideas: nature-related books, photos or art, outdoor gear, plants, homemade goodies . . .



Get the latest updates on FORM events and listen to interviews with Rally presenters and leaders on Roan Mountain Radio with Ken Turner.

<http://www.roanmountainradio.com/>



*If you prefer to read your FoRM newsletters online (color version) email [nbarrigar@friendsofroanmtn.org](mailto:nbarrigar@friendsofroanmtn.org) with your request.*

 <b>MARK YOUR CALENDAR</b>	Spring Rally	Last Friday - Sunday in April	April 27 — 29, 2018
	Youth - XRA	Last Friday—Saturday in July	July 27 — 28, 2018
	Fall Rally	Friday - Sunday in September after Labor Day	Sept. 8 — 10, 2017
	Winter Rally	Saturday in February nearest Valentine's Day	Feb. 17, 2018



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