



PO Box 2732
Wise, VA 24293

To:

The Clinch Coalition's Holiday Gathering
December 12, 2017 at 6:00
Potluck Dinner and Silent Auction
Speaker Phil Shelton on the Birds of High Knob



It is the mission of The Clinch Coalition to protect and preserve the forest, wildlife, and watersheds in our National Forest and surrounding communities for present and future generations.

Get in touch with us...

www.clinchcoalition.net
clinchcoalition@gmail.com
or
Call us at 601-946-0159



The High Knob Herald

Official Newsletter of The Clinch Coalition

No. 12 Fall 2017



News From The Knob

Salamanders of High Knob
by Wally Smith, Herpetologist UVA-Wise



It's no secret that High Knob is home to an incredible amount of biodiversity, and amphibians are a large piece of that puzzle. More than 20 species of salamanders, in fact, can be found on and around High Knob and call the mountain's streams and forests home. One of the most fascinating of these amphibians is the Green Salamander (*Aneides aeneus*), a rarely-seen member of the Knob's amphibian fauna. The Green Salamander is interesting for several reasons, particularly because it is the only member of its genus to live in eastern North America; all of its other close relatives live out near the Pacific coast.

The species' most interesting trait, though, is its habitat. Rather than living under rocks in a streambed or beneath a log on the forest floor, Green Salamanders are climbers, living high up in cracks and crevices on vertical rock faces. If that wasn't bizarre enough, Green Salamanders also climb out into the forest canopy during warm, wet periods in summer months, returning to cliffs and bluffs when conditions become cooler or drier. The species gets its name from its bright green, lichen-like coloration, which serves as a form of double-duty camouflage on mossy rocks and high amid leaves in the canopy.

In recent years, researchers at UVA-Wise and Virginia Highlands Community College have found some of the largest known populations of Green Salamanders on High Knob. The City of Norton even recently designated part of its property on the mountain a "salamander sanctuary" to protect habitat for this rare species. As work continues to understand how the mountain's cliffs and forests benefit the species, researchers need your help. If you see a Green Salamander on your property or while out hiking or rock climbing, snap a photo without handling or disturbing the animal, and send it to Wally Smith at whs2q@uvawise.edu. Your observations can help conserve this species and its habitat on High Knob and beyond!



A green salamander peeks out from a rock crevice, a favorite habitat location.

News From the Knob



11TH ANNUAL EARTH AWARENESS ART AND ESSAY CONTEST

This year's contest, with the theme "The Ripple Effect", had over 80 entries from students in Wise, Scott, and Lee Counties. Students submitted an original piece of art or a short essay on the role of water in our environment, communities, and lives. Students demonstrated an understanding of the value of clean water in a time of growing concern about water quality and conservation. They examined and expressed their understanding of clean water as it relates to communities, health, ecology, and economics.

The Ripple Effect



**Hannah Hughes, 1st Place Primary School
Dungannon Intermediate**



**Elizabeth Hall, 1st Place High School
Eastside High School**

Over the past 11 years, The Clinch Coalition has awarded thousands of dollars to hundreds of students entering the EARTH Contest. Previous years' contests have included topics such as forest ecosystems, local foods, and outdoor recreation. The Clinch Coalition would like to thank all the students and teachers who participated in this year's contest.

To see more winning students' artwork, visit www.clinchcoalition.net.

Fun on the Trails



On June 2, in celebration of National Trails Day, TCC supported 20 hikers on a two day journey from the High Knob tower to Hanging Rock. Hikers did the 19 mile Chief Benge Trail with an overnight stop at Bark Camp Lake. TCC provided hike leaders, meals and shuttles. There was a presentation at the campfire that night by Jesse Wright, from Natural Tunnel on the history of Chief Benge.

TCC Board Members 2017

Executive Committee
Diana Withen, President
 Wise, VA
Wally Smith, Vice Pres.
 Wise, VA
Bill Harris, Secretary
 Big Stone Gap, VA
Gena Kiser, Treasurer
 Pound, VA

Board Members
Shawn Becker
 Duffield, VA
Wayne Browning
 Clintwood, VA
Jim Elam
 Pound, VA
Frank Frey
 Norton, VA
Layton Gardner
 Wise, VA
Russ Gillenwater
 Rogersville, TN
Michael Hinkle
 Duffield, VA
Ryan Huish
 Duffield, VA
Trevor Makal
 Wise, VA
Jacob Peters
 Wise, VA
Gerry and Joe Scardo
 Clintwood, VA

Advisory Board
Jackie Hanrahan
 Coeburn, VA
Anna Hess
 Dungannon, VA
Richard Kretz
 Lebanon, VA
Mark Miller
 Lexington, VA
Jim Moran
 Abingdon, VA
Hugh O'Donnell
 St. Paul, VA
Ben Prater
 Asheville, NC
Phil Shelton
 Wise, VA

Honorary Members
Dick Austin
 Abingdon, VA
Detta Davis
 Coeburn, VA
Robert Gillenwater
 Rogersville, TN
Teresa Guice
 Rogersville, TN
JR Moore
 Coeburn, VA
Nancy Ward
 Coeburn, VA

Staff
Annie Jane Cotten,
Program Director
 Pound, VA
Steve Brooks,
Associate Director
 Nickelsville, VA



**Lillie Meade, 1st place Middle
Coeburn Middle School**



On November 4, The Clinch Coalition was guided by Stephen Grayson on a hike in the Cedars Natural Area Preserve in Lee County. This area supports an exceptional natural community of rocky, dry, limestone glades and woodlands. The preserve lies within a significant karst region which covers 30 to 40 square miles near the Powell River. The characteristic feature of this karst landscape is thin soils over easily-dissolved limestone bedrock, creating terrain that tends to be rolling, rocky, rugged, and full of sinkholes, caves, and sinking streams. The preserve is a haven for rare plants which are adapted to the mostly thin, nutrient-poor soils of the area.



Working the trails and having fun at the High Knob Recreation Area in preparation for the annual High Knob Music Festival in June.



On the Trails Work In 2017



The other section that was concentrated upon earlier in the year was the High Knob Recreation Area. Our volunteers worked hand in hand with Forest Service staff and the volunteers that organized the second High Knob Music Festival (photo). The amphitheater was the main focus of that work along with the parking, picnic and lake shore areas. We also worked the lake trail and other trails in that area.

We are lamenting the retirement of two Forest Service staff who have worked with us extensively over the past 10 years. Not only did they work with us, they trained us and supplied us with the necessary tools needed to do the work properly. Ricky Bentley and Rick Meadows have both retired, but have let us know that they will continue to come out and work with us when they can.

At this point we have put in a total of 589 hours of volunteer trail work, with additional work planned before the end of the year.

We are always looking for new volunteers, and appreciate the help of everyone who comes out to support our mission. If you would like to volunteer, please contact us at clinchcoalition@gmail.com.

The Clinch Coalition performed extensive trail work this year on the Devil's Fork, Little Stony and Chief Bengé Scout Trails! These three trails were focused upon in order to make them especially safe for the runners of the Cloudsplitter 100 Run that took place on October 7. With the help of local volunteers we concentrated on those trails and the Straight Fork Trail throughout August and September. Special thanks goes to Patty Bates and her dog Bandit who spent many hours working those trails.

Partner Spotlight: UVA Wise Environmental Club



Revived in 2016 by students Michael Hinkle and Jacob Peters, the UVA-Wise Environmental Club has seen a strong resurgence in the past year. Having lost club officers to graduation, the club was dormant until these students approached club advisors, Drs. Walter Smith and Ryan Huish, about bringing it up to speed. In the fall of 2016, the club had its first interest meeting which was met with a great response by students. Over 40 new members registered during that first meeting, and club officers were soon elected. Seemingly overnight, the club was back on its feet with a brand-new set of club officers ready to take the helm.

Since then, the Environmental Club at UVA-Wise has been as active as a club full of busy students can be! They have hosted a documentary film showing at the UVA-Wise science center followed by a discussion between professionals, community members, and students about environmentalism, participated with trail work and had their own cleanup event at Little Stony Falls in January of 2017. They even sponsored a student to conduct research as part of their new internship program—where a lucky student gets a stipend to conduct research related to the club's mission. Victoria Wheatley, an environmental science major at UVA-Wise, was selected for this internship in the summer of 2017. She conducted research on locals' perceptions and knowledge of the coal industry, regulations, renewable energy, and eco-tourism. The club invites interested students to participate in our activities.

4th Annual High Knob Hellbender 10K



The fourth annual High Knob Hellbender 10K was held Oct. 7, with 81 folks representing seven states (Virginia, Kentucky, Tennessee, Georgia, Indiana, Ohio, West Virginia) running. This year, a new course record was also set. Tanner Cook, 23, of Johnson City, TN finished in 43 minutes, 42 seconds. Cook bested the previous course record of 50 minutes, 04 seconds set by Nick Whited in 2015.

It was a beautiful day to be on High Knob, and we are grateful for all the volunteers, runners, and spectators who help make the race happen each year. We'd especially like to extend a huge shout-out to the City of Norton for supporting the race each year. The city's public works crews, police department, rescue squad, and other first responders do an awesome job to ensure our runners have a safe and fun race experience. We would also like to thank the Wise County Sheriff's Office, LifeCare Ambulance Service, Mountain Empire Older Citizens, and Coeburn Boy Scout Troop 301 for their ongoing support of the race.

We were also excited to have the race serve as the 10K Mountain Road Championship for both the Virginia and Kentucky associations of USA Track & Field this year, and we're hoping this designation will continue to help the race grow in the coming years. We've already started planning next year's race and can't wait for the fifth annual climb on Oct. 6, 2018!



Congratulations to our 2017 Winners

Overall Men

1st: Tanner Cook, 23, Johnson City, Tenn.: 43:42
2nd: Brad Mathisen, 29, Norton, Va.: 53:07
3rd: Shawn Becker, 40, Duffield, Va.: 55:28

Overall Women

1st: Bess Mathisen, 29, Norton, Va.: 58:01
2nd: Lauren Kraft, 35, Columbus, Ohio: 1:10:54
3rd: Beth Sandman, 36, Columbus, Ohio: 1:11:30

Masters Male

Mike Harding, 51, Norton, Va.: 1:07:55

Masters Female

Lisa Hazlett, 40, Gray, Tenn.: 1:11:42



Summer Birds of High Knob

By Philip C. Shelton, Professor Emeritus, UVA-Wise.

Elevation brings upper levels of High Knob, above about 1000 meters, into a climatic zone (Köppen Cfb) characteristic of latitudes a few hundred kilometers north. Additionally, cold air drainage into the Big Cherry basin and the headwaters of Big Stony Creek, including the recreation area, give these areas even cooler conditions. Thus flora and fauna of High Knob have affinities with areas in the lower Great Lakes, roughly equivalent with northern Ohio and Southern Michigan.

Since birds are more mobile than other vertebrates, except perhaps for bats, and many are migratory, it is not surprising that birds characteristic of more northerly regions find favorable habitat at high altitudes far south of their major ranges. Birds of northern affinities with long-established populations on High Knob include Dark-eyed Juncos, Rose-breasted Grosbeaks, Chestnut-sided Warblers, Black-throated Blue Warblers, Canada Warblers, Solitary (Blue-headed) Vireos, Veerys, and Northern Ravens.

In the last fifty years, several species, including Magnolia Warblers, Hermit Thrushes, and Swainson's Thrushes have extended breeding ranges southward in the Southern Appalachians in higher reaches of the Blue Ridge and Ridge and Valley provinces, especially in the spruce and spruce-fir forests of the Black Mountains of North Carolina and Great Smoky and Roan Mountain of the North Carolina/Tennessee borders, and in Virginia, the Mount Rogers/Whitetop area and Clinch Mountain. Magnolia Warblers and Hermit Thrushes have colonized northern hardwood forests (sugar maple and yellow birch) below the spruce and spruce-fir.

High Knob's avifauna has been enriched by the addition of verified breeding Magnolia Warblers and summer records of both Swainson's and Hermit Thrushes. No positive breeding evidence of these thrushes has been found, but persistent occurrence of singing male Hermit Thrushes suggest that they likely breed. Summer records of Winter Wrens on upper reaches of Big Stony Creek and Eastland Creek from the 1970's into the early 2000's may have indicated breeding populations, but they have not been found in more recent years.

Other northern species for which birders might be alert in the higher elevations of High Knob include Brown Creeper, Yellow-bellied Sapsuckers, and Black-capped Chickadees.

No summer birding trip to High Knob will disappoint. In addition to the northern species mentioned above, a rich mix of interesting, unusual, or uncommon birds can always be found. Of special interest for their relative rarity is the possibility of spotting Blackburnian Warblers, Cerulean Warblers, Louisiana Waterthrushes, Swainson's Warblers, Cedar Waxwings, Northern Parulas, Black-throated Green Warblers, Acadian Flycatchers, and Redstarts. These add to the more common species including Towhees, Catbirds, Robins, Indigo Buntings, Scarlet Tanagers, Bluejays, Crows, Ruffed Grouse, Downy, Hairy, and Red-bellied Woodpeckers, who together keep up a steady chorus of songs and calls.



Magnolia Warbler

Blackburnian Warbler

Indigo Bunting



THANK YOU!

Applebee's	Cavalier Pharmacy	Carmen Stallard	Adam Jones Art	Appalachian Community Fund
Bill Harris	Douglas Brooks	Reno's Roadhouse	All Indoor Farm Supply	Becky and Tucker Coleman
China Garden	Elizabeth Hirschman	Roma's Pizzeria	Bank of Scott County	First Bank & Trust Company
Cinema City	Fitness Advantage	Romano's Restaurant	Bill Harris Photography	Grand Home Furnishings
Clif Bar	Gerry and Joe Scardo	Sherman Bamford	Broadwater Trading Co.	Healthy Appalachia Institute
Crutchfield	Home Hardware	Subway	Brookside Market	Iron Works Cycling
CSE Agency	Inn at Wise	The Dog S'Paw	BSA Troop 301 Coeburn	James & Amanda Hughes
CVS	James Elam	The Vapor Shop	Clinch River Adventures	Lawson's Water Conditioning
El Charitto	Kiwanis Club Norton	Thomas Kennedy	Crafts from the Gap	Little Mexico Restaurant
FishTales	Lions Club Pound	Trout Unlimited	Crossfit Stone Mountain LLC	Lonesome Pine Bookstore
Food City	McDonald's	Tyler Hughes	Euritha's Gift Shoppe	Moonbeam Dreams, LLC
Food Lion	Mi Hacienda	UVAW Bookstore	Heartwood Forest Council	Morgan McClure Chevrolet
Frank Frey	Moondog Pizza	UVAW Foundation	Kennedy Law Office	Mountain Empire Hearing and Balance
Gena Kiser	New Peoples Bank	Vernon Moore	Little Caesars Pizza	Natural Tunnel State Park
Genesis Salon	Norton Kiwanis	Vic's Paint	Monterrey Restaurant	Office Advantage & Gift Shop
Lowe's	Robo's	Wakame Steakhouse	New Vision Optical	Pathfinders Outdoor Adventures
Magic Mart	Rachel's Cupcakes	West End Pharmacy	Quality A/C & Heating	Patrick and Diana Withen
Phil Shelton	Soft Petals	Wildcat Pharmacy	Southern Steel Tattoo	Paul and Jody Mocerri
Pound IGA	Taco Bell	William Wasserman	Steven E. Naus, DDS	Pound Veterinary Hospital
Prime Sirloin	Lester Chiropractic	Woodbooger Grill	Sturgill Funeral Homes	Red Barn Thrift Store
Save-A-Lot	Walmart		Sugar Hill Brewing Co.	Rex McCarty Appraisal Services
Wendy's			The Apple House	Scott County Tourism
			The Clapboard House	Scott County Virginia Star
			Todd & Shelley Cassel	Steven Hopp & Barbara Kingsolver
			Tucker & Rebecca Coleman	Virginia Tech-Wise County Extension

Microclimatology of The High Knob Massif

by Wayne Browning – UVA-Wise

The complex mountain terrain of southwestern Virginia is blessed with an array of favored cold places where air temperatures can drop to surprisingly low levels during any given month of the year.

While the highest mountain ridges are obviously cold, especially during winter months when wind chills become a true factor in the lives of all living things that need to balance a heat budget, the lowest air temperatures often occur in middle-upper elevation valleys dominated by cold air drainage and pooling during nights favorable for radiational cooling.

Outside of Canaan Valley in the northeastern highlands of West Virginia, and Burkes Garden in Virginia, these “frost pockets” have received little attention over the years. Their existence in the terrain is simply unknown to most as they go unrecognized by forecasters of weather.

With the widest crestral area of any mountain in all the Old Dominion of Virginia, the High Knob Massif is unique in possessing an array of elevated valleys that act as collectors for cold air drainage.

Early in 2016 an initiative to enhance undergraduate research, using the High Knob Massif as a natural laboratory, was started at the University of Virginia’s College At Wise (UVA-Wise) with a project goal of defining microclimates and their relationships to biological diversity within complex terrain.

Collection of high-resolution data has supported previous research and found that some of the coldest valleys in the central-southern Appalachians occur in the High Knob Massif. The average nightly low temperature during Summer 2017, for example, was chillier in Big Cherry Lake basin than within both Canaan Valley and Burkes Garden. This is striking given that Big Cherry is also a much wetter location.

The combination of cold air pooling in high valleys, and draining downward into middle and lower elevations, increases the amount of terrain capable of supporting species of flora and fauna with northern affinities. Case in point, Hermit Thrushes (*Catharus guttatus*) have been found for years at much lower elevations in the High Knob Massif than they typically occupy at this latitude.

Other species such as the Veery Thrush (*Catharus fuscescens*) and trees like Yellow Birch (*Betula alleghaniensis*) finger downward with cold air draining from upper elevations in the High Knob Massif to live at elevations much lower than they do when moving away from their cold air drainage microclimates.

The diversity of microclimates within the High Knob Massif combine with this wettest landscape in Virginia to help enhance the sheer number of individuals of many species, ranging from Green Salamanders (*Aneides aeneus*) and Eastern Chipmunks (*Tamias striatus*) to synchronous Fireflies (*Photinus carolinus*) and Millipedes of the genus *Brachoria*, to note only a few.

Climate should no longer be thought of as the average of weather, but instead it must be understood to be a complex, interactive system consisting of five major components (Atmosphere, Biosphere, Cryosphere, Hydrosphere, and Lithosphere).

These components make up a Climate System where all things, living and non-living, resting upon, beneath, and above surfaces of planet Earth are intimately linked together by fluxes of mass, energy, and momentum under the physical constraint that for every action there be a reaction. Only in this way can a true understanding of climate, with its many microclimates, commence. Only in this way can we come to understand and fully appreciate what is the greatness and majesty of the magnificent High Knob Massif.



For more information reference:

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

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

TCC Update on Nettle Patch Project on High Knob

The Clinch Ranger District has had several acting District Rangers that we have met with this year. In July, Felipe Cano came on board, and on August 9th we met with him to continue discussion of the Nettle Patch Timber Sale. At that meeting we were informed they were continuing work on a new Environmental Assessment (EA); and they would include another alternative that considers our comments.

On October 18th, we again met with Felipe and Forest Service staff to discuss this project as well as potential alternatives and the future of the forest.

HISTORY: For over three years now, Forest Service (FS) staff has been working on their plans for the Nettle Patch sale. On January 25, 2016 their plan was made public, covering 6693 acres, calling for a total of 1552 acres for logging and 1155 acres for burning in one of the wettest and most diverse forests in the eastern United States.

A second more detailed plan was made public on April 1, 2016 with comments due by the end of the month. With the assistance of the Southern Environment Law Center (SELC), TCC members submitted comments expressing concerns about the effects of the project on erosion and flooding, water quality, species diversity, invasive species, impacts on future recreation use, and climate change. Then after 6 months, on February 22, 2017 the Forest Service came out with a draft Environmental Assessment (EA) and gave the public 30 days to submit comments. At that point, we then submitted 87 pages of comments and asked the USFS to include an additional alternative in their final EA.

On June 6, we met with the then acting district ranger, Beth Christenson, her staff and Deputy Forest Supervisor Beth LeMaster from Roanoke. After going over our comments with them we were informed that they would give them much consideration and create another alternative in their new EA.

We are waiting for the FS to come up with an alternative that we hope will incorporate our suggestions, including drastically reducing the scale of both logging and burning of the forest. We hope that they will come out with an option that enhances the health of the forest and encourages outdoor recreation as a strategy for local economic development.



11th Annual High Knob Naturalist Rally



Would Einstein Approve?

By Harry Warren, High Knob Recreation Area Host

Albert Einstein said "Look into nature, and then you will understand everything better." On September 30th, 350 people followed Einstein's advice and learned about nature at the Clinch Coalition's 11th Annual High Knob Naturalist Rally.

Experts revealed little known facts about wolves, raptors, reptiles, bats, bears, beavers, snakes and salamanders. Knowledgeable naturalists conducted captivating walking tours exploring the worlds of wild mushrooms, birds, dragonflies, trees, edible and medicinal plants. People experienced fly fishing, kayaking, canoeing, and learned how to survive in the wilderness. Kids had fun painting leaves, rocks, going on a scavenger hunt and playing nature games.

All participants enjoyed an array of delectable dishes for lunch. The pot luck lunch, prepared by members of the Clinch Coalition, was without cost to attendees, proving there is such a thing as a free lunch. Soothing mountain music was provided during the noon day meal.

The United States Forest Service owns and operates High Knob Recreation Area. Created by the Civilian Conservation Corps during the Great Depression, it has served the public since officially opening on July 1, 1940. The Clinch Coalition greatly appreciates the Forest Service of the Clinch Ranger District for providing logistical support.

The Naturalist Rally is truly a community event. Over ninety organizations, businesses and individuals contributed funds, goods and services to make the Naturalist Rally possible. UVA-Wise professors, the UVA-Wise Environmental Club, Trout Unlimited, NASA, Appalachian Voices, Clinch River Adventures, Clinch River Valley Initiative, East High Ecology Club, Southern Appalachian Mountain Stewards, Upper Tennessee River Roundtable, Virginia Extension Service and Virginia Master Naturalists all provided people with information and technical expertise. Coeburn Scout troop 301 assisted with parking. And, without a doubt, the rally would not have happened without the scores of individual volunteers who planned the event and worked the day of the rally.

A variety of professionals and experts shared their passion and knowledge through talks and tours. Anyone interested in more information can contact the Clinch Coalition (601) 946-0159.

Thanks again to everyone who made the 11th Annual Naturalist Rally such a worthwhile and successful endeavor. We hope Albert Einstein would have been pleased.



Rally Presenters and Activities

Chris Allgyer, Butterflies
 Brett Barrett, Reptiles
 Wayne Browning, High Knob Climate
 Jane Branham and Buddy Delp (Strawberry Jam) music
 Mark and Carol Caruso, Wilderness Survival
 Bill Cawood, Tree Identification
 Bob Culler, Raptors
 Robyn Goad, Enviroscope
 Rhonda Goins, Wolves
 Lydia Graves, Solar Development
 Stephen Grayson, Local Flora
 Betsy Grossman, Birds
 Karen Hartsock, Nature Games
 Michael Hinkle, Salamanders
 Jonathan Hootman, Bats
 Ryan Huish, Maple Syruping
 Katie Jessee, Nature Art
 Cathy Landy, UTRR
 Phil Meeks, Edible Plants
 Josephine Rodriguez, Dragonflies
 Jane Sandt, Wilderness First Aid
 Phil Shelton, Geology of High Knob and Beavers
 Wally Smith, Salamanders
 Johnnie Stanley, Mushroom Identification
 Sally Watts, Geocaching
 Eddie Yates & Renee Collier, Medicinal Plants & Fungi
 Bill Harris and Bonnie Aker, Photographers

