



THE NEWSLETTER OF THE
KANAWHA STATE FOREST FOUNDATION

THE FOREST FRIEND

WINTER 2024 EDITION



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*Adopt the pace of nature. Her
secret is patience.*

Ralph Waldo Emerson

*I took a walk in the woods and
came out taller than the trees.*

Henry David Thoreau

Leave the roads: take the trails.

Pythagoras

KSF Foundation
7500 Kanawha State Forest Drive
Charleston, WV 25314

Letter from the Chair

By John Hughes, Chairperson

Let it snow, let it snow, let it snow!

Old man winter has finally arrived since the last two winters have not produced much snow but do not let that keep you from enjoying the great outdoors. Kanawha State Forest can be a good time to get out and enjoy the beauty of winter. I love to see the ice formations the runoff water produces; the quiet stillness snow provides as I walk the trails and the crunch my every step makes while walking. I remember growing up in the Kanawha Valley and we had plenty of snow in the winter. Sledding down the smallest hill to the steepest I could find. Don't let the snow and cold keep you from enjoying the beauty of winter Mother Nature provides to us. If you happen to see our board member and avid all-weather hiker Wayne Stevens, please say hi to him and Wayne can lead you to some of KSF most wonderful winter sights in the forest.

Kanawha State Forest Foundation is actively planning for our annual Shirley Schweizer winter walk coming up on February 17th. Participants will learn about the industrial development of the forest, as they view the remnants of the mining activity in Shrewsberry Hollow. This will be an easy 2-mile hike. More info is provided on our Facebook page and on our new web site (ksff.org)! The February board meeting has been cancelled due to too many members being out of town. Our next board meeting will be on April 8th at 6 pm at the Nature Center. If you are a foundation member and plan to attend any of our meetings or would like to discuss any ideas for new activities, please let me know in advance (info@ksff.org). All ideas are welcome.

So, get off the couch and enjoy what Mother Nature has to offer in the winter. You may find it more fun than you think!



Photo by Vince Ammirato

Officer Changes on the Board

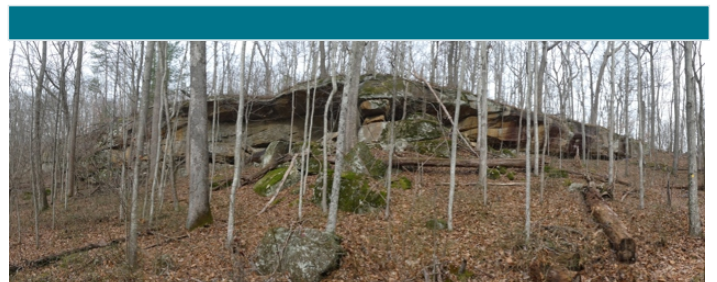
By Doug Wood

Chair of the Ecology Committee.



Long time Secretary, Joe Carney, turns his duties over to Luanne McGovern, Photo by Doug Wood

At the December 11, 2023 KSFF board meeting, Joe Carney turned over the job of Secretary of the Foundation to Luanne McGovern. Joe spent many years performing the duties of that position for the Foundation. He retired from the position at the same time he retired from the board. Joe also served on the Ecology Committee of the Foundation. We want to thank Joe for his years of service and wish him good luck on his new pursuits. We also want to thank Luanne for stepping up to the plate and we want to express our full confidence in her ability to serve the KSFF in the Secretarial capacity. Luanne also serves on the Ecology Committee.



Along Beech Glen Trail. Photo by Dale Porter

Unusual Ferns in Kanawha State Forest

By Luanne McGovern
Photos by Luanne McGovern

Even in winter, the greenery of ferns can be found throughout the Forest. The ubiquitous Christmas Fern (*Polystichum acrostichoides*) seems to be everywhere. But there are some more unusual ferns that can be found even in the Winter, or in the early Spring. As you search out the wonderful ferns of KSF, remember – take only photos, leave only footprints!

Common Polypody (*Polypodium virginianum*) An abundant and evergreen fern, they are most often found on top of large boulders intermingled with moss. The blades are “pinnatifid” with no stems. Sometimes call “rock polypody” they can be confused with Christmas ferns.



Climbing Fern (*Lygodium palmatum*) At first sight, this climbing, vining plant looks like a weed. The small leaves have 4-7 lobes. There are two known locations for climbing fern in the Forest. It is ranked as S3 (vulnerable) conservation status by the WV Natural Heritage Program.



Walking Fern (*Asplenium rhizophyllum*) A lovely and unusual fern, the walking fern appears to “walk” across moss covered boulders. The long tips send out shoots that root and produce new little plants. The fronds are evergreen and can vary in size. They are found in a few locations – look in hollows with sandstone rocks.



Fan Clubmoss (*Diphasiastrum digitatum*) This evergreen plant grows in higher elevations of the Forest. Traditionally collected at Christmas, it is protected in the Forest and should not be picked. It has many common names, including Ground Pine, Bears Paw and Running Cedar. The upright sporophylls appear in late Summer. Clubmosses are considered fern allies due to their method of reproduction by shedding spores.



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Chain Fern (*Woodwardia areolata*) Found very infrequently, the chain fern grows in large clumps, in moist acid soil. It can be confused with the Sensitive Fern, and its blades are stiff and somewhat waxy. It is ranked as S2 (imperiled) conservation status by the WV Natural Heritage Program



Adder's Tongue (*Ophioglossum vulgatum*) This strange little plant is difficult to spot on the Forest floor. They appear in early April and die back in warmer weather. The spike is said to resemble a serpent's tongue (*ophis* = serpent, *glossa* = tongue) and are only found in a few locations.



If you want to learn more about the flora of Kanawha State Forest, there is a great book available at the Nature Center – ***Flora of Kanawha State Forest – Wildflowers, Trees, Shrubs, Ferns and Grasses***, by Margaret E. Denison. Or consider joining the **West Virginia Native Plant Society**, www.wvnps.org.

Research in the Kanawha State Forest Eastern Watersheds Old-Growth Forest (OGF)

Unless otherwise noted, all text and photos are by Doug Wood

In February of 2020, KSFF volunteer Jennifer Bauman contacted WVU Professor Amy Hessl, Ph.D., regarding the Ecology Committee's effort to develop the OGF Interpretive Trail. Dr. Hessl, then contacted a former student of hers, Professor Thomas Saladyga at Concord University, who had earned his Ph.D. working in Dr. Hessl's dendrochronology lab. Dendrochronology is the scientific field that

deals with interpreting tree and forest history from the record of tree growth found in annual tree rings. Dr. Saladyga then contacted Jennifer and offered his assistance. He had resided on the east end of Kanawha City around 2013, and spent some time hiking in KSF, while there. He had seen some fire-scarred trees and pondered revisiting the forest someday to do the dendrochronology research there.



Author checking shortleaf pine. Chad Cordell photo.

Previous to this connection, in 2018 I had given information to Jim Vanderhorst, Ph.D., a vegetation community specialist with the WV Dept. of Natural Resources' Natural Heritage Program, regarding the location of Shortleaf Pine communities in the OGF. Dr. Vanderhorst was interested in gathering data in a particular vegetation community known as the Shortleaf Pine-Oak Forest, a globally rare community. He provided me this link to further understand the community:

http://explorer.natureserve.org/servlet/NatureServe?searchCommunityUId=ELEMENT_GLOBAL.2.690009

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Eventually, both researchers visited the communities, Vanderhorst confirming the existence of the gobally rare Shortleaf Pine-Oak Forest and Saladyga (and two colleagues) collecting tree ring data for a research article. In 2022, Dr. Saladyga, Kyle A. Palmquist of Marshall University, and Marshall undergraduate student Cassie M. Bacon had an article published in the scientific journal *Fire Ecology*, Volume 18, Number 19, which you can access online at: <https://doi.org/10.1186/s42408-022-00143-6>



The species bears both two and three needles per fascicle.

Two of the article’s facts that I found most interesting included the oldest KSF tree ring date in Dr. Saladyga’s study plots, A.D. 1745 and the oldest dated fire scar, A.D. 1794. At least one of the trees in the OGF is 279 years old in 2024. For an armchair historian like myself, knowing that there are trees in KSF that started their lives during King George’s War (1744-1748) is fascinating. In 1745, Peter Chartier led a band of Shawnees down Ohio River from his trading settlement at the confluence of Chartier’s Creek and Monongahela River (in PA) and settled at what is now Portsmouth, OH for awhile before moving further southward to what is now AL. That tree sprouted just three years after a small exploratory party led by John Peter Salley (or Johann Pieter Salling) and John Howard (or Hayward) floated down Coal River on their way to the Mississippi River during the second known visit of European Americans to the Kanawha

Valley. The oldest observed fire scar happened in the same year as the pivotal Battle of Fallen Timbers, after which no American Indian war parties attempted to hold onto their lands in the Kanawha Valley anymore, as Euro-Americans poured into the region when peace ensued.

Other interesting facts relate to the *Mean Fire Interval* (MFI) in KSF over different ranges of years. During what the researchers called the *Boom and*



The tiny "volcano" bark pustules distinguish Shortleaf Pine from Pitch Pine.

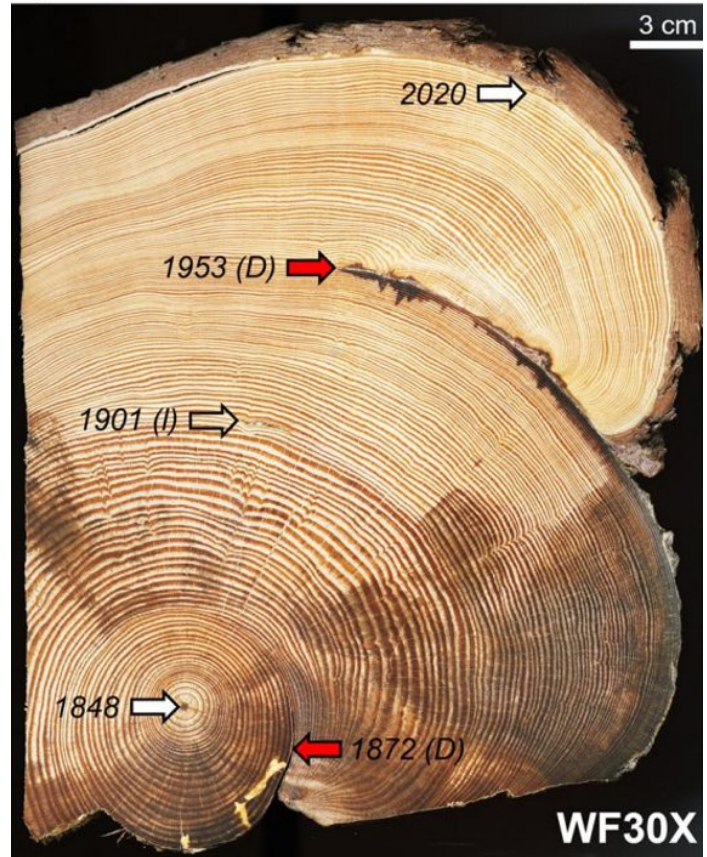
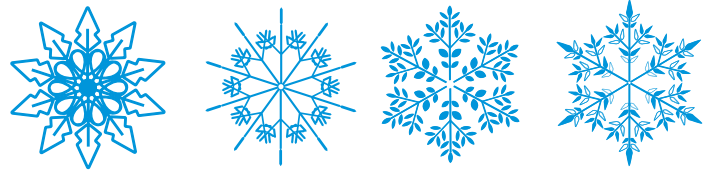


Image by Tom Saladyga

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Bust period, 1890-1969, the average fire frequency was 9 years, but during the *Post-Industrial* period, 1970-2020, only one fire was recorded in the tree ring data, giving an average frequency of only 1 year for that 40-year period. That fire occurred in 2007. The decrease in fire frequency in the Post-Industrial period has been commonly observed in numerous Appalachian Mountain region dendrochronological studies. The drop probably reflects decreases in deliberate fire landscape management practices since the advent of the *Smokey the Bear* anti-forest-fire campaign began around 1944. This general decline in fire frequency is what has led to the decline in the once abundant, fire-dependent Shortleaf Pine-Oak vegetation community. This research highlights the importance of having land-owning public agencies protect their old-growth forests to contribute to the understanding of long-term trends in vegetation communities, consequently contributing valuable information to guide management practices for rare flora and fauna that depend upon those vegetation communities.



Shirley Schweizer Winter Walk

February 17, 2024

One PM

Join us at the forest headquarters for a two mile interpretative walk back to the late 19th century and early 20 century when the forest was an active mine site. Walk leader Dale Porter will speak about the industrial development of the forest, as participants view the remnants of the mining activity in Shrewsbury Hollow. Mining techniques and the role coal played in individual lives years ago and the challenges that miners and mine owners faced during the period will be discussed. If time presents we may cover a little about the WW mine wars.

This interpretative walk has no serious climbs but it is still two miles. It is February, so cold temperatures may occurs, so dress appropriately for the weather and wear proper footwear. The walk will follow the road on the North side of Shrewsbury Hollow and return on the CCC Snipe Trail on the South side of the hollow.

There is no charge to participate in the walk. Message the forest foundation Facebook pages with questions regarding this annual event.



Ridgetop in the Wall Fork study area where the 2007 fire burnt. View is toward the West.



Section of Teaberry Trail that follows an old mine bench.



Black Band Coal Tipples.

First Day Hike

By Dale Porter

Photos by Jennifer Bauman

The 2024 First Day Hikes were well attended. The weather was cloudy, and chilly with a few snow flurries, but it did not hinder the participants taking advantage of the variety of hikes offered. Hike lengths from a few tenths of a mile to six miles were offered.



Superintendent Clark Sanford greets hikers.



Six mile hikers.

Join the Kanawha Valley Chapter of the West Virginia Master Naturalists



Orientation : **Saturday, March 23, 2024, 10 am**
 Kanawha State Forest Nature Center,
 7500 KSF Dr., Charleston, WV

For more information, contact info@mnofwv.org



Kanawha State Forest Foundation Board of Directors

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UPCOMING EVENTS

- WV Vernal Pool Workshop - March 2, 2024
- Osbra Eye Spring Nature Walks - April 20, 2024

The Osbra Eye Spring Nature Walks will feature a variety of interpretative walks led by knowledgeable naturalist. Topics such as wildflowers, birds, and geology will be covered.

The Kanawha State Forest Campground is now open year round.

2024 WV VERNAL POOL WORKSHOP DATES

Feb. 24, 2024
 WV Botanic Garden,
 Morgantown

March 2, 2024
 Fort Mill Ridge WMA
 Romney

March 16, 2024
 Kanawha State Forest
 Charleston

March 23, 2024
 New River Gorge NP
 Beckley - Fayetteville

SAVE THE DATE!

This marbled salamander has already headed to a vernal pool, where wood frogs and other salamanders will join it in the late winter and early spring. We will be there too.



Photo: Frank Gebhard

More details & registration coming soon!
 Questions? Email saveourstreams@wv.gov



Deadline for Spring Edition of the Forest Friend is April 10, 2024 for early May publication.

NEWSLETTER ARTICLE SUBMISSION

- When submitting articles for the newsletter, please submit photos as separate files. Do not embed them in the article. It makes it very difficult or impossible to place in the newsletter format.
- Please identify the photographer.
- Identify persons featured in photo when possible.
- Submit articles and photos by deadline.

The Foundation reserves the right to accept or reject any article submissions.

The Forest Friend

Edited by Rebecca S. Linger
 Layout by Dale A. Porter