



BEREA COLLEGE FORESTRY OUTREACH CENTER

February 2021 Friends of the Forest Newsletter

WELCOME BACK STUDENTS!

Faculty/Staff/Students, please join us for TGIF Brushy Fork walks! We'll meet every Friday at 3 on the grassy area behind dining for a 1-2 hour hike. Watch for further announcements.

All about Water

This month, we are going to spend some time thinking all about water! Stay tuned for activities and social media posts as Berea joins Lexington in celebrating Water Week March 20-27th.

Did you know? The Berea College Forest's watersheds supply the public water for the city and College. There are four reservoirs, a water treatment plant, and two water towers through which around 1 BILLION GALLONS of water flow each year.

Where Does Our Water Come From?

Owsley Fork Reservoir is the main source for Berea's water.

Cowbell Reservoir, B Lake and Kale Lake are also part of the system.

(Pictured below are Owsley - L and Cowbell-R)



Berea is one only a few places in the United States where the lands which comprise a municipal watershed are privately owned. This makes it easier to protect water quality.

Land Acknowledgement:

Osiyo. Hatito. (Hello)

We invite you to join us in acknowledging that the Berea College Forest is located on the traditional territories of the sovereign Shawnee and the Cherokee nations. Both nations hold these mountains in care and tradition. Tribes are often involved in work to protect land that many have been forcibly driven from. The harms inflicted by the separation and removal of Indigenous People from these ancestral lands run deep. The erasure of their language and stories further rewrites the narratives we tell about these lands and waterways to keep them conveniently open, and this only deepens wounds for Indigenous communities.

Please take a moment to reflect on this beautiful land, to honor and show gratitude towards its original caretakers- the Shawnee and the Cherokee. We hope that you, too, will become a caretaker of this land.

Thank you to Tiffany Pyette for this Land Acknowledgment Statement.

The Pinnacles, Brushy Fork, and Anglin Falls trails are OPEN. The Forestry Outreach Center and restrooms are CLOSED.

We appreciate you practicing safe social distancing as well as Leave No Trace in order for the trails to remain open safely.

Read the full re-opening announcement on our social media and website listed below.



Berea College Forestry Outreach Center



@bereacollegefoc



Citizen Science Project: Biodiversity of the Berea College Forest



Seek app by iNaturalist, great I.D. tool for kids and families

<https://forestryoutreach.berea.edu/>

Fascinating Facts about Water

Yes, of course the most obvious fact about water is that it is wet, at least in the liquid state. But, there are many more facts about water that make it a most fascinating substance, one that all life on and in the Earth depends on.

https://www.usgs.gov/special-topic/water-science-school/science/facts-about-water?qt=science_center_objects=0#qt=science_center_objects

Water is unique in that it is the only natural substance that is found in all three physical states—liquid, solid, and gas—at the temperatures normally found on Earth.



Water is called the "universal solvent" because it dissolves more substances than any other liquid. This means that wherever water goes, either through the ground or through our bodies, it takes along valuable chemicals, minerals, and nutrients.



The density of water means that sound moves through it long distances (ask a whale!). In sea water at 30°C, sound has a velocity of 1,545 meters per second (about 3,500 miles per hour).



February Skies Over the Forest

Last Quarter: Feb. 4th
 New Moon: Feb. 11th
 First Quarter: Feb. 19th
 Full Moon: Feb. 27th



Our astronomy volunteer, Jeff Hutton, promises the evening of February 19th will be a treat! Find out why by reading his blog post on our website at on our website:

<https://forestryoutreach.berea.edu/skies-over-the-pinnacles/>

The Berea Water Cycle

AFTER THE FAUCET

On average, individuals in the United States use 88 gallons of water per day. (USGS)

WHEN IT GOES DOWN THE DRAIN
 It travels to the wastewater treatment plant so it can be processed.

WASTEWATER TREATMENT PLANT
 The water is discharged into Silver Creek. The plant utilizes treatments such as ultra violet disinfection.

The plant processes an average of 4.3 million gallons per day. (2010)

Depending on the amount of water flowing in and how deep it goes, groundwater can be less than a day to hundreds of thousands of years old.

BACK INTO THE EARTH
 When it rains, some water soaks through the soil into gravel and bedrock below and gets locked in. If available, gravel, sand, and rock formations can often hold large amounts of water. These supplies are called aquifers.

UP INTO THE ATMOSPHERE
 Water is constantly evaporating during every step of the journey. It reenters the atmosphere as vapor and will condense to make clouds. When enough moisture builds, it will precipitate back down over Berea.

At any time, the atmosphere holds 0.04% of Earth's freshwater, and 0.001% of total water, as vapor.

AND THE CYCLE REPEATS

Special thanks to Steve Jones from Berea Municipal Utilities

<https://www.encyclopedia.com/earth-and-environment/ecology-and-environmentalism/environmental-studies/groundwater>
<https://www.sanccotech.com/important-wastewater-treatment-necessary/>
<http://www.ky.edu/KCS/water-library/gw/145/Madison-Exploration.htm>
<http://water.ky.gov/groundwater/Pages/GroundwaterAwareness.aspx>
<http://bgadd.org/water-ways-berea-looks-for-creative-solutions-to-water-supply-issues-preparing-for-drought/>
http://www.bereautilities.com/?page_id=55
http://www.bereautilities.com/?page_id=33
http://www.bereautilities.com/?page_id=27
<https://water.usgs.gov/edu/watercycleatmosphere.html>

Follow the Berea College Forestry Outreach Center and the Berea College Forestry Department's social media pages for information throughout February!

Wado. Niyaawe. (Thank you).

Reach Out!

Questions about the forest? Hiking? The natural world? Feel free check out our website (<https://forestryoutreach.berea.edu/>)

or reach out to:

FOC Director: wendy_warren@berea.edu

FOC Naturalist: john_abrams@berea.edu