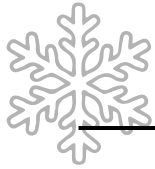


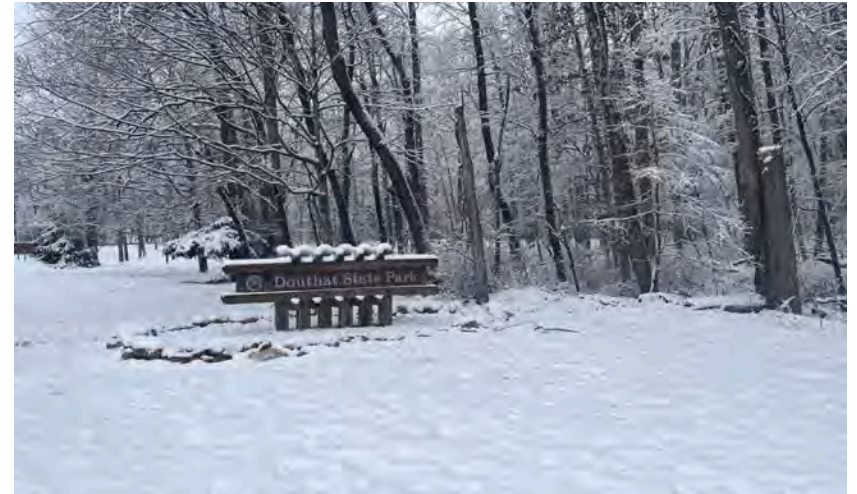
**This Booklet Belongs
to:**



Completed On:



Douthat State Park Winter Explorations



Bundle up and explore the wonders of Douthat in a whole new way! Winter might seem quiet, but the park is full of hidden life.



Can't see any critters—oh deer!

Most animals may be hiding to stay warm or camouflaging, and you just missed them. Here are some interesting things you could find that proves an animal was around! Check them as you see them!

- Stripped bark and rub marks** - Buck deer will rub the velvet off of their antlers, you can see signs of this on bark that is stripped in wide patches along the trunks of trees
- Claw marks** - Black bears may periodically come out during the winter, look for claw marks in trees where they may have been sharpening their claws or looking for termites!
- Interesting holes** - woodpeckers are resident species here at Douthat, be on the lookout for holes in the trees they've visited!
- A browse line** - the area where deer can reach and have eaten all the leaves and branches of trees and shrubs, there is usually a clear line where deer have eaten and where they have not.
- Animal Prints**- Be on the lookout for animal tracks! Animals will often leave tracks behind, especially in snowy conditions.
- Disturbed Leaves** - Have you noticed how your head leaves an indent in your pillow after you sleep? Animals will often sleep in leaf piles and leave flat compact circles almost like a pet bed at home!
- Scat!** - Be on the lookout for animal scat while hiking the trails! Can you identify who it might be from?

What's Worth Preserving?

Douthat is one of the oldest parks in Virginia! Everyday our rangers work hard to preserve it for people like you to enjoy!



Name 3 things you discovered in the park during your visit

- 1.
- 2.
- 3.

Ask someone you know what 3 things they enjoy MOST about Douthat

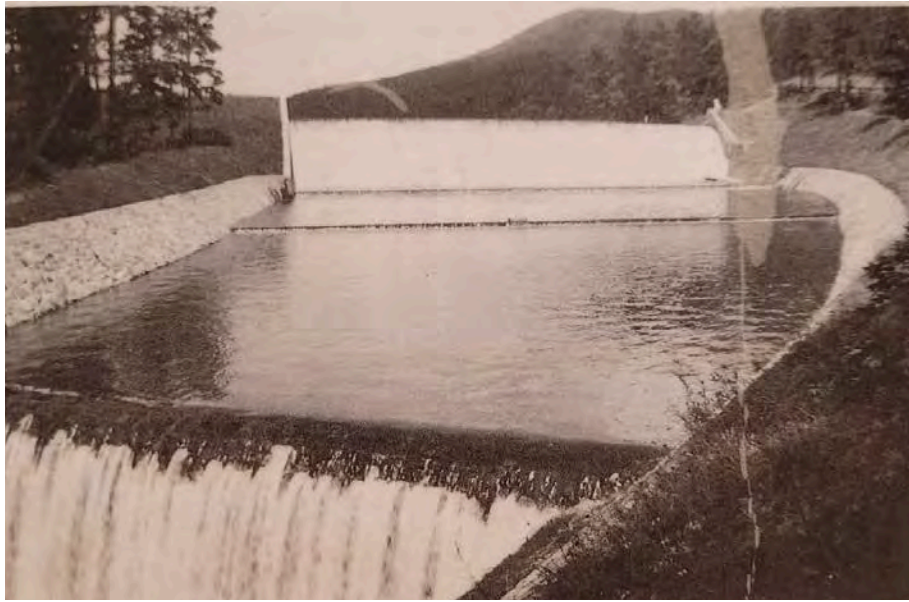
- 1.
- 2.
- 3.

Are they the same or different from the items you discovered?



Why are these things worth preserving?

Time Traveling!











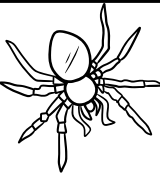
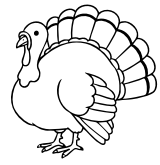
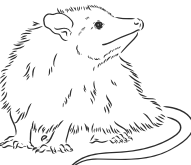





Douthat's dam and spillway are original to the park. The image above was taken in the 1930s. Go to Camp Malone Picnic Area to see this same view. Can you spot the differences between now and then?

List 3 main differences you see

1. _____
2. _____
3. _____

Can you get bingo?

 Deer	 Pinecone	 Cardinal	 Pine Needles
 Feather	 Animal Prints	 Woodpecker	 Black Walnut
 Tree Cavity	 Berries	 Spider	 Wild Turkey
 Opossum	 Acorn	 Shelf/Bracket Fungi	 Ant

A lot of things may be hidden in the chill of the winter, but are you able to spot enough to get bingo?

Bugs you MIGHT see

Not all bugs hibernate! You might see some creepy crawlies in your house as they are seeking shelter, but others may still be outside working hard.

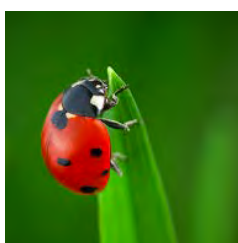
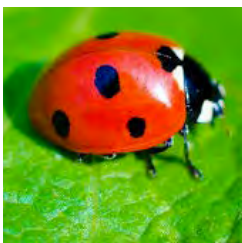
These critters can often include: Spiders, Stink Bugs, Ants, and even Asian Lady Beetles (not to be confused with our usual lady bugs!)

SPOT the difference

Asian Lady Beetles are quite different from the usual Lady Bugs you may think of, know the signs of each!

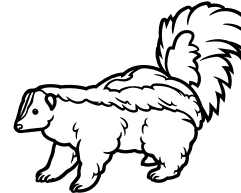
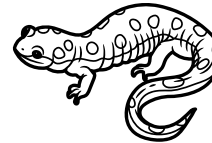
Asian Lady Beetles - home invaders, can be smelly, can have an 'M' shaped spot or irregular spots, slightly larger, not always red

Lady Bugs - Bright red with distinct black spots, tend to stay outdoors, beneficial for gardens



Whose home?

Do you think you can identify who may live in these winter homes?



Hibernation, Brumation, or Torpor?

Hibernation is what most people think critters do in the winter. Many of us imagine a nice fat bear eating a lot before going into a deep sleep until winter is over, but that's not the case!

So, what is it actually?

Hibernation is an inactive or dormant state in which many animals enter a metabolic reduction. This usually includes slowing heart rate and breathing, lowering body temperature, and usually the gorging of food in preparation to store body fat. This usually lasts a few months. Some animals that experience **True Hibernation** in Virginia are Bats and Woodchucks.

Brumation is very similar to Hibernation but for amphibians and reptiles! They slow down their activity, eat less, and slow their heart and respiratory rates.

Outdoor critters such as salamanders, frogs, and more are going to be busy hiding away in logs, burrows, and often leaf litter, so don't bag those leaves up in the fall!

Torpor is almost like hibernation! It's a state of lowered temperature and metabolic activity. Torpor can last overnight or for many hours as needed. Some animals will go through a 'daily torpor' in the winter! Animals that experience torpor include Black Bears, Skunks, and even Opossums.

Even if our friends are asleep, can you find their homes?

An animals home can be anywhere!

Be on the lookout for - nests in trees, a fallen log, and even leaves!

Found an interesting home you've never seen?

Snap a Picture!

What happened to the bugs?

Bugs can migrate, seek shelter, turn dormant, or still be active in the winter.

Many of the bugs and insects that stay around are usually seeking warmth during this time—much like we do!

Bugs you DON'T see

A lot of bugs this time of year are going to be right under our noses - or really, our feet!

Many of the insects that we don't see during this time of the year are probably hibernating in places like leaf litter, logs, or burrowed underground!

Can You Find The Bugs?

To keep bugs alive for the next season, something you can do is to keep your leaves!

In this pile of Leaf Litter, there are 5 bugs hibernating, circle all 5!

KEY:

- Butterfly
- Beetle
- Moth
- Bee
- Firefly



Winter Plants

“Did all the plants disappear?”
Of course not!

Evergreen Trees keep their pine needles year-round! We have two distinct evergreen trees here at Douthat

White Pine - long, soft needles in bundles of 5

Virginia Pine - shorter, twisted needles in pairs

Lookout for seeds and cones still clinging to plants! These will be snacks for the winter birds and small mammals!

Fun Helpful Tip:
If you ever forget the difference between the two, White has five letters for the bundles of 5!
VA is two letters, for the bundles of 2!

- What else to be on the lookout for?**
- Striped Wintergreen** - a low, shiny, green plant with a white stripe down the center of the leaf
 - Witch Hazel** - A large shrub or small tree that produces fragrant, spidery flowers in shades of yellow, orange, and red
 - Winterberry** - A medium sized shrub with bright red berries in a cluster along the branches

Can you draw the difference between the two pines?

White Pine

Virginia Pine

Interested in learning more about the bird you heard or saw?

Have you heard about Merlin? (not the wizard!)

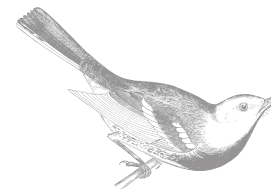
Merlin is designed to be a birding coach for bird watchers at every level

Merlin allows you to identify birds by:

- Songs
- Color
- Behavior
- and more!



Before going out, consider downloading Merlin! Become an at home ornithologist!



Scan this QR code to download Merlin!



Winter Birds

Not every bird flies south for the winter, here at Douthat, we have a lot of residents that stay for the season!

Birds such as Owls, Woodpeckers, and Warblers may be what you see (or hear) the most!

Find a nice spot to sit for some time and keep your eyes and ears open!

For each one of these birds, mark a tally if you came across them



Northern Cardinal



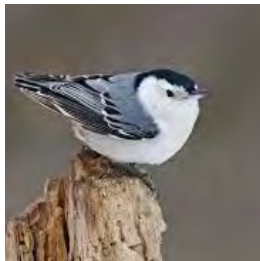
Black Capped Chickadee



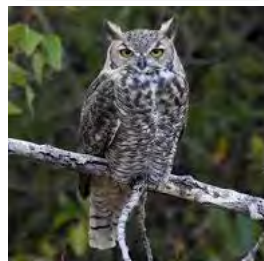
Great Blue Heron



Pileated Woodpecker



White Breasted Nuthatch



Great Horned Owl

Moss vs Lichen

Chances are you've seen both moss and lichen and didn't know they were different organisms!

Let's go over the basics.

Moss is a multicellular organism with leaflets that lack true roots, grows in damp areas, and reproduces by spores, much like fungus!

Moss is usually fuzzy, green, and spongelike; they primarily absorb water and nutrients from the ground or trees.

Lichen is a plant like organism that is in a symbiotic relationship usually between a fungus and algae. In much simpler terms, the fungus itself is surrounded by a colony of algae.

Lichen can be an array of colors, although usually green when wet, it does not have any leaves of any kind, and almost looks like coral!

Let's take a closer look!

Zoom Out: Draw Moss where you found it

Zoom Out: Draw Lichen where you found it

Zoom In: Try to draw the texture of moss!

Zoom In: Try to draw the texture of lichen!

Use Your Senses!

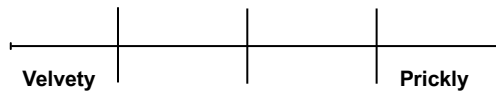
You've been using your eyes this whole time, have you used your other senses?

Touch

Take the time and unleash your inner child! Try touching some moss or lichen, be on the lookout for things you shouldn't touch like poison ivy vines!



What did you feel and how did it feel? Mark the texture of your findings with an X



Hear

Have you *really* listened today? Owls have asymmetric ear holes, one is higher than the other, allowing them to pinpoint sound much more accurately. We aren't that lucky! Find a nice place to sit and quiet not only your body, but your mind.



List 3 sounds!



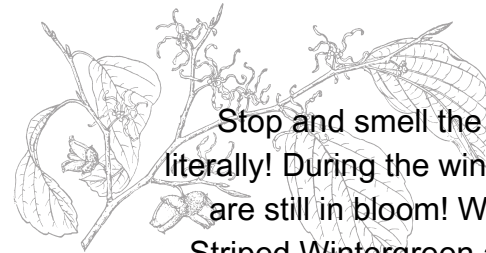
1. _____
2. _____
3. _____

Use Your Senses!

You've been using your eyes this whole time, have you used your other senses?

Taste

We'd prefer if you didn't taste random plants on the trail, but we would like to make sure you stay hydrated and well fed for your trek! Take a moment to do so!



Stop and smell the flowers. No, literally! During the winter, some plants are still in bloom! Witch Hazel or Striped Wintergreen are likely what you'll come across.

Smell



Draw what plant you saw!

