

**This Booklet Belongs to:**

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**Completed On:**

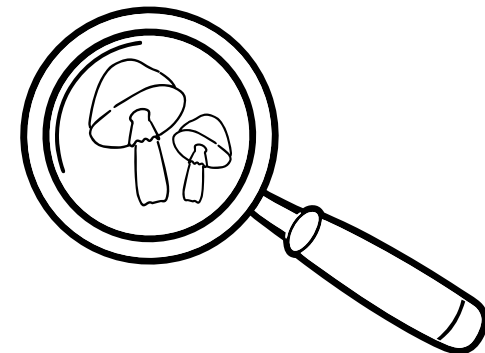
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# Douthat State Park

## Fall Explorations



FALL in love with the outdoors and explore the flora and fauna that Douthat has in the Autumn!





## Fall Checklist

It may be the fall, but a lot of creatures are gearing up for the winter. Explore the world around you and see what some of these preparations may look like!



- Big Pile of Leaves** - many animals and insects in the fall burrow in the leaves to prepare for winter! Consider not bagging yours this year!
- Squirrel with a Snack** - squirrels are preparing for the winter by eating nuts and more! You may see them with something in their mouths as they're running around.
- a Pile of Hickory Shells** - September and October, Hickory trees drop their nuts. Many animals will eat them sometimes leaving a pile of shells around!
- Sycamore Bark** - Sycamore trees shed their bark because the outer layer isn't capable of keeping up with the tree's growth, you'll often see these bark strips on the ground near the tree.
- Bird Migrating** - It is raptor and warbler migratory season! There are many birds flying through the air and over our lake! Keep an eye out!
- Monarchs Migrating!** - Monarchs are traveling to Mexico for the Winter! On their way they may stop for some nectar and other travel snacks, see if you can find one, or many!
- Seeds in Many Forms** - Fall is when most seeds are dropped from plants and trees! They come in all shapes and sizes: gumballs, acorns, and more, see(d) what you can find!

## 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?**

## Leaf me alone!

*Oftentimes, many of us will rake and bag our leaves, as they may seem 'unsightly' but doing so takes away incredible benefits!*

Leaves contribute in many ways!

- They are a primary source of organic matter:**  
When leaves decompose, they release nutrients like phosphorus and nitrogen, this helps fuel new growth in the spring!
- They offer a safe space:** Many animals and insects will use leaf piles as a home in the fall and winter; bagging leaves often causes a decline in the survival rate for our outdoor friends!
- They are a natural fertilizer:** If you leave them to decompose in your yard, they will act as natural mulch!

### Cons to leaving the leaves

- Clogging storm drains
- Polluting waterways with the release of nutrients
- Creating algae blooms due to influx of nutrients

### Some things YOU can do this fall






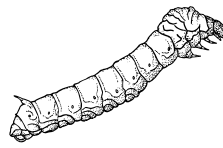

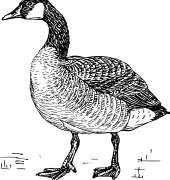
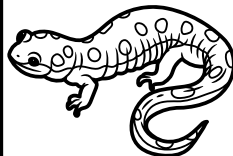

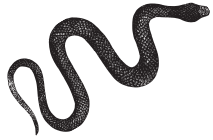

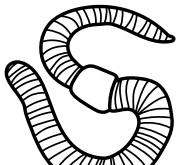



- Do NOT bag your leaves
- Wait until Spring to clean up your yard as to not disturb yard guests
- Rake leaves AWAY from storm drains

Think about who you're helping!



## Can you get bingo?

Try to mark each box off as you come across them, do you think you can get enough for a bingo?

 Monarch Butterfly	 Animal Scat	 Berries	 Owl
 Lions Mane Mushroom	 Caterpillar	 Red Oak Leaf	 Canadian Goose
 Salamander	 Chanterelle Mushroom	 Rat Snake	 Moth
 Worm	 Warbler	 Frog or Toad	 White Oak Leaf

# It's a bird! It's a plane! It's actually, a Raptor!

*"Raptors like dinosaurs?"*

No silly!

Raptors are birds of prey with large, foreword facing eyes, sharp talons, and curved beaks.

## Fall is peak raptor migratory season!

While you're out exploring, keep an eye out for some of these birds and try to keep track, lucky for you, they migrate in the day time!






### Helpful tips:

**Osprey:** Look for a distinct 'M' shape while in flight

**Bald Eagle:** Look for large, flat wings, with large wing slots; these birds often soar

**Turkey Vulture:** Look for a large wings with "finger tips" and a distinct V-shape



		
Osprey	Bald Eagle	Turkey Vulture

# Hiking Essentials

*Fall is a great time to hike! With cooling weather and beautiful colors, a hike is a great way to spend the day.*

Here, at Douthat, we have 43 miles of trails!

## Know Before You Go!

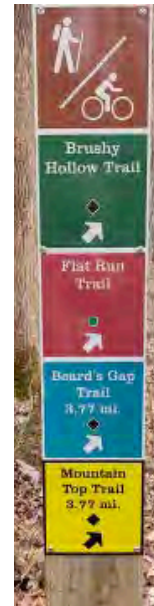
*Do you know what the symbols mean on a trail sign?*




*Before choosing a trail, make sure you're picking one within your difficulty level!*

When out hiking you should always have your essentials:

- Proper footwear
- Water
- Maps/compasses/a plan
- Sun protection
- First aid kit/items

Trail sign example:



-  **EASY** - Suitable for all hikers with any experience level
-  **MODERATE** - a little more difficult, better for somewhat experienced hikers
-  **DIFFICULT** - Hard, usually better for experienced hikers

Having a hard time reading our paper map? Try the Avenza app!

The Avenza map is not only in color, it also pinpoints your location without cell service in case you get turned around!



# Fun-guys!

Fall is one of the best times for mushrooms; the temperatures are cooling, there's increased moisture from rain, and decaying leaves are perfect for nutrients!

Many mushrooms are actually named based on their appearance! Making them pretty easy to identify. It's your turn to be a mycologist! **Draw a line to match the name to the fungi!**

Lion's Mane

Violet Toothed Polypore

Amber Jelly Fungus

Turkey Tail



## DID YOU KNOW?

Until the 1960's, Fungi were considered plants! **Why are they not plants?** They have unique structural and physiological features and they **DO NOT** have chlorophyll, seeds, leaves, etc. Lacking chlorophyll means they don't produce food for themselves!

### At Home Science!

*Mushrooms will often leave their own distinct spore print; here's how you can make one!*

**Gilled Mushrooms** - Place the cap with the gills faced down on paper, put a drop of water on top of the cap. After these steps, place a glass or paper cup over the cap and let the mushroom sit for 2-24 hours! (hours dependent on the freshness of the mushroom)

**Mushrooms with Pores** - Pores will usually be underneath the cap if the mushroom has a stem, you can make a print the same way as if it had gills. If the mushroom is hard, spore prints can be more difficult to obtain, try wrapping it in a wet paper towel overnight before attempting to make a print. If it does not have a stem, remember, the spore bearing surface always faces the ground!

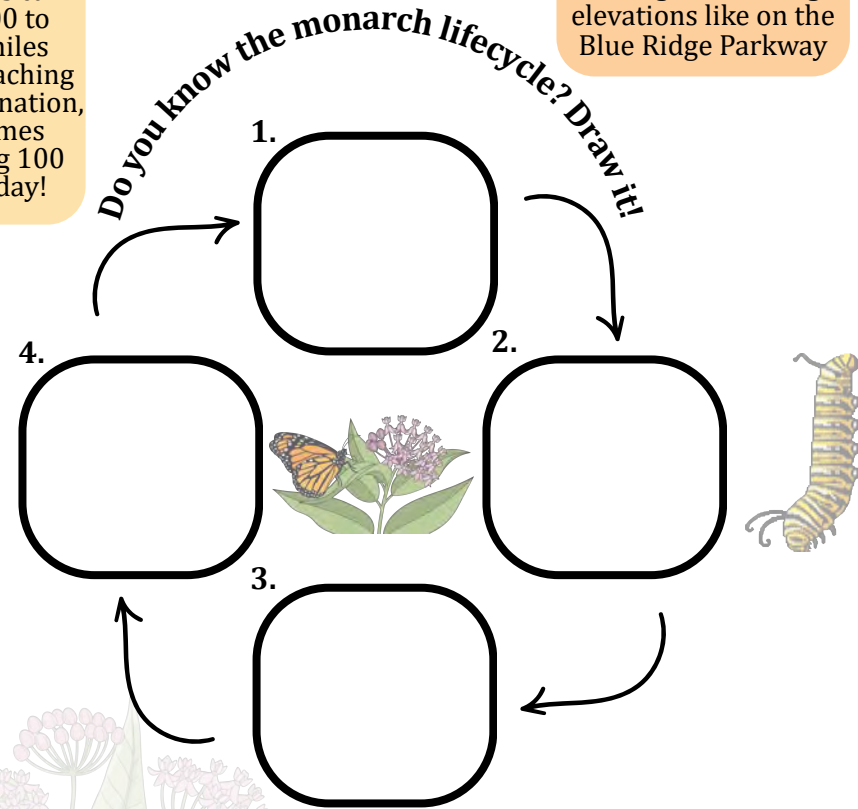


# Monarch Migration

Monarch Butterflies cannot survive freezing temperatures for extended periods, so they fly south for the winter starting as early as mid August!

Migrating monarchs can fly 2,500 to 3,000 miles before reaching their destination, sometimes averaging 100 miles a day!

You can often watch this migration at high elevations like on the Blue Ridge Parkway



Monarch caterpillars only eat milkweed, making milkweed the Monarch's host plant. Once Monarch caterpillars hatch, they spend the next two weeks filling their bellies before they pupate and metamorphose into adults.

**If you hike to the Dam, there should be some milkweed for you to spot!**

Number of Milkweed Stems found:

# See(d) for Yourself!

Many trees and flowers are dispersing seeds in the fall as they gear up for winter! These seeds can go through quite a journey!

Can you guess how these seeds travel?

Draw a line to each!

Hint: it could be more way than one!

You've probably seen a lot of these seeds without even knowing their names!

They come from maples, tulip trees, and sycamores



Samara

wind



Cone

They come from conifers like hemlocks or pines

They come from willow and birch trees



Catkin

animals



Pappus

They come from dandelions, milkweed, and some asters

They come from redbud trees and some small plants



Legume

water



Burr

They can come from many plants including Virginia stickseed

Pick two seeds you've never really looked at

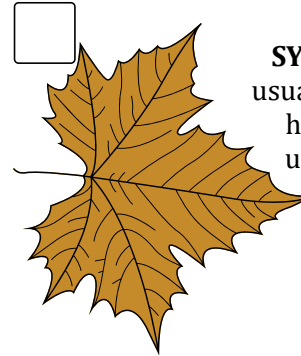
Zoom In: Try to draw the seed up close

Zoom Out: Draw where you found it, maybe the tree it came from!

Zoom in	Zoom in
Zoom out	Zoom out

# Leaf Identification

It isn't fall without some fall-ing leaves!



**SYCAMORE**- Large leaf with usually 3 to 5 lobes, their edges have pointy teeth, and the underside is slightly fuzzy



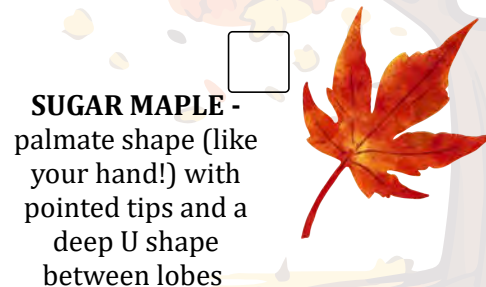
**WHITE OAK** - oblong leaves with 7-9 lobes, the widest part of the leaf is where the longest lobes are, which is usually in the middle



**RED OAK** - large, long leaves with 7-11 lobes, their edges have sharp points, they are bright red in the fall



**BEECH** - simple, oval shaped leaves with a pointed tip. These leaves can stay on through the winter



**SUGAR MAPLE** - palmate shape (like your hand!) with pointed tips and a deep U shape between lobes

Can you find all 5 of these leaves?

Check the box as you find each one!

# Salamanders



Fall is an excellent time to hunt for salamanders; many of them are burrowing, mating, or migrating!

**IMPORTANT NOTE TO REMEMBER!**

Salamanders have a very sensitive skin barrier, if you find one and have intentions on picking it up, make sure you have WET hands!

**Some of the salamanders you may see at this time are:**

**Red Salamander** - fall is when these salamanders are laying their eggs, mating can take place all year except for the winter months! You can find these salamanders in leaves and under logs



**Northern Dusky Salamander** - Mating can occur in the fall or spring; the larvae will also metamorphose in either late summer or fall; you can find these salamanders in a stream or creek



**Marbled Salamander** - Mating occurs in late September through early October (these salamanders are unique among Virginia mole salamanders because they guard their eggs!) You can find these salamanders in woodlands near ponds or streams

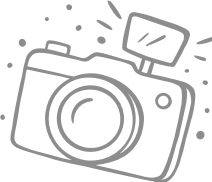


**Allegheny Mountain Dusky Salamander** - Mating occurs in April, September, or October; you can find these salamanders in creeks and streams



Try to snap a picture of a salamander and be on the lookout for our Vernal Pool!

*A vernal pool is a seasonal wetland where many salamanders lay their eggs in the fall or spring*



# A-maze-ing Travels

Try to get your samara seed to the end before someone eats it!



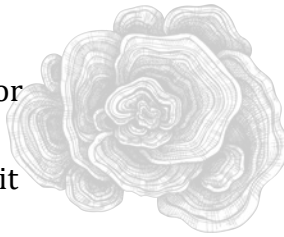
# Use Your Senses!

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

## Touch



Find an interesting mushroom or two, can you identify them? What did you feel and how did it feel? Mark the texture of your findings with an X



Firm



Spongy

## Hear

**Raptors aren't the only birds migrating, but also Warblers!**

A warbler is a small, active songbird with bright colors. Although warblers migrate in the night time, you may hear their songs during the day!

**Find a nice place to sit and keep a tally of every different song you hear!**



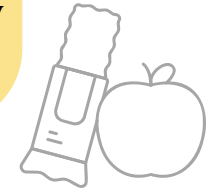
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You've been using your eyes this whole time, have you used your other senses?

## 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!



## Smell



**Stop and smell the flowers!**

One of the flowers you may see the most are Asters.

Asters can be light blue, purple, pink, or white, and they almost look like stars or daisies.

**What do they smell like to you?**



**Ask someone you're with what they smell like, is it the same as your answer?**