

Winter Stroll

The Arboretum is lively and lovely in winter



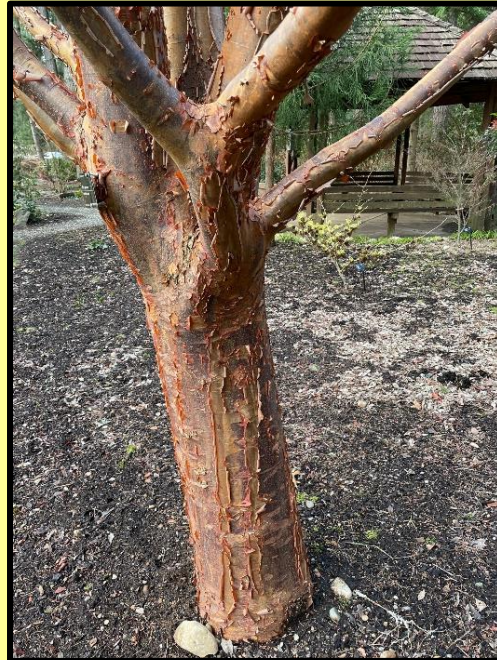
Age: All

Time: 45+ minutes

When you take this winter stroll you will see that the Arboretum is lively and lovely. You will see colorful buds, flowers, and berries; many shades of green, sometimes in the same leaf or tree (variegation); interesting shapes and forms and structures of branches and trunks; and learn a bit about how some animals and plants prepare for winter.

This stroll will explore the Arboretum from west to east:

1. In the Meadow **near and around the gazebo** at the southeastern end of the Woodland Garden.
2. In the **Japanese Maples in the Woodland Garden**.
3. East across the **Meadow**.
4. In the **Legacy Garden and Smith-Mossman Garden**.



1. Near and Around the Gazebo

In winter, you more easily notice the shapes and structures of trees and colors and textures of bark.

See and touch the trunk of the **Alaska Cedar** in the meadow on the way to the gazebo.

- How would you describe the bark?
- What colors do you see?

Walk to the **Paperbark Maple** tree beyond the cedar and touch the bark.

- Why do you think this maple tree's name is Paperbark?
- How would you describe this texture?
- How are colors arranged on the bark?

Continue **walking around the gazebo and you will see some standout color!**



- The **Alaska Cedar** has **yellow and green foliage** growing on the same branches (variegation).
- Look down and see the brave and beautiful **winter-blooming Hellebore flowers** on your right.
- Keep walking around the gazebo and you will see the **winter-blooming Witch Hazel with yellow spider-like flowers**. (Notice the brown leaves hanging on. Why didn't they fall during autumn? Think about this; we'll talk about it when we visit the Legacy Garden.)
- Other parts of plants also provide winter color: See the **red in the Bloodtwig Shrub Dogwoods** in front of the Witch Hazel and the **Nandina Heavenly Bamboo** shrub nearby.

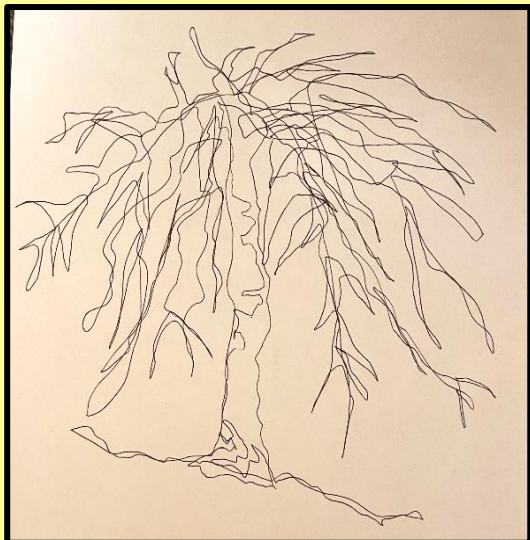
2. Japanese Maples in the Woodland Garden

From the gazebo walk to the west end of the Meadow into the Woodland Garden to see the Japanese Maples with more than 50 trees, including the 60-year-old Anniversary Maple (the first Japanese Maple on your left).

Without their leaves you can better notice the Japanese Maples' graceful, twisted branches.

- Use your imagination when you look at the shapes of the trees: Do you see a dome? upside-down funnel? ball cap? umbrella?

If you have paper and pencil, **you could make a continuous line drawing of one of the Japanese Maple trees.**

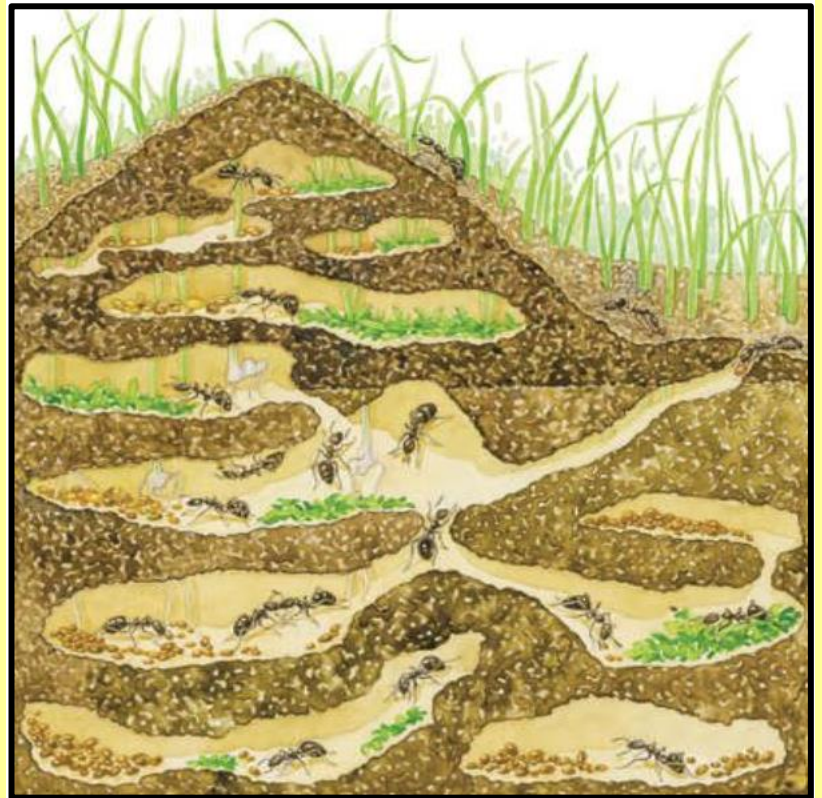


- Choose a favorite Japanese Maple tree and find a comfortable place to sit and observe it for a few minutes.
- Then place your pencil on the paper and draw what you see, but do not lift your pencil at all, not even once, until you have finished your drawing.
- Double back if you want to return to a spot and start again.

- You will make different kinds of lines: swirly, squiggly, jagged, straight.
- Your drawing should cover the entire page.
- It is relaxing and fun to make a continuous line drawing, and the drawing will look remarkably like the real tree.
- Try another continuous line drawing, this time of a Paperbark Maple near the gazebo.

Western Thatch Ant Mound

Follow the trail through the Japanese Maple forest to where it ends at a Douglas Fir tree with a mound at the base. Stay on the trail and do not touch the **mound, which is home to about 40,000 ants** who fiercely guard their home by biting intruders. Winter is a good time to observe the mound because ants stay inside when it is cold. Their habitat can extend 4 feet below ground.



Ants create thatch mounds by collecting grass, leaves, and twigs, and then weaving them together using silk produced from glands on their bodies. They also bring leaves and grass inside their nest where they break it down and mix it with the soil. This improves soil structure and regulates air circulation, temperature, and moisture levels within the nest. During winter, ants tightly weave the thatch surface and plaster it with soil material, leaving only a few entrances. They go down deeper

into the below-ground tunnels of the nest. Some snakes use warm ant nests as a winter home, too.

3. Walking East Through the Meadow

Walk east through the Meadow. During winter, **animals are out and about looking for food.** You might see a cottontail rabbit or squirrel scamper across the meadow, or you might see their tracks in snow or mud. If there is snow, you might see a place where the snow is messy from when a bird swooped down to snatch a rabbit, squirrel, or mouse.



This is a photo of cottontail rabbit tracks. Fur covers their toes, so you don't usually see each toe. In this photo the rabbit is moving in the direction of the long tracks. A rabbit jumps forward, places its front paws and then lands its back feet in front of the front paws. It jumps off its back feet, reaches out with front paws, places them and then lands its back feet ahead of the front paws. In this photo, the back feet tracks are at the top and the front paws are at the bottom.



This is a photo of squirrel tracks. Squirrels have two small front feet and two longer back feet. You can see the long skinny toes. Squirrel tracks usually lead to a tree where the squirrels nest. Look up to find squirrel nests. Squirrel nests are easier to see when leaves have fallen.





This photo shows a track in the Meadow on a rainy day in January. Can you guess what animal made this track? It was a dog!



At the east end of the Meadow, look for three Atlas Cedar trees growing close together. Touch the bark—the texture is very different from the Alaska Cedar and Paperbark Maple trees you observed near the gazebo.

- What words would you use to describe the bark?

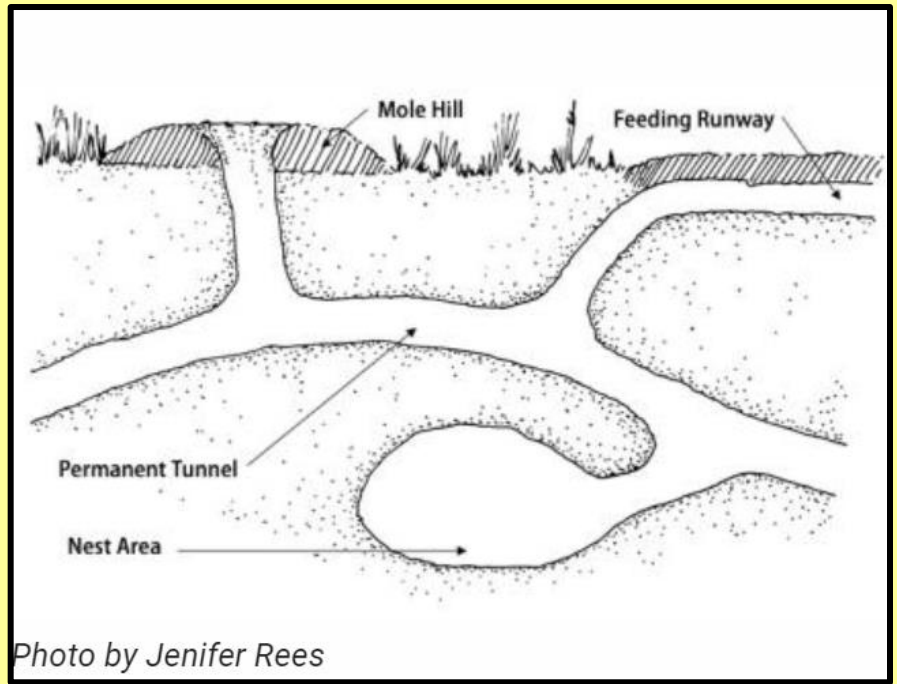
Look carefully at the trunks.

- What do you notice about the holes?

An animal made the rows of holes. Although you don't see the animal at work, the holes are evidence that a **Flicker Woodpecker** was here searching for food under the bark.

4. Legacy Garden and Smith-Mossman Garden

As you walk along the main Arboretum path past the Perennial Garden, Legacy Garden is on your left and Smith-Mossman Garden is on your right. The photo below, taken in the Smith-Mossman Garden, is more evidence of animals at work in the Arboretum during winter: moles!



Townsend moles are active all year round but spend most of their time underground, so you seldom see them. We know they are here because we see their **molehills**, which they push up as they dig their tunnels. To create tunnels, the mole makes swimming motions with its large, clawed forepaws to push through the soil. Their tunneling and mound building mixes soil nutrients and improves soil aeration and drainage, which helps plants grow. Moles also eat many garden pests.

The Legacy and Smith-Mossman Gardens have many trees that help us better understand what trees do in winter to protect themselves from freezing.

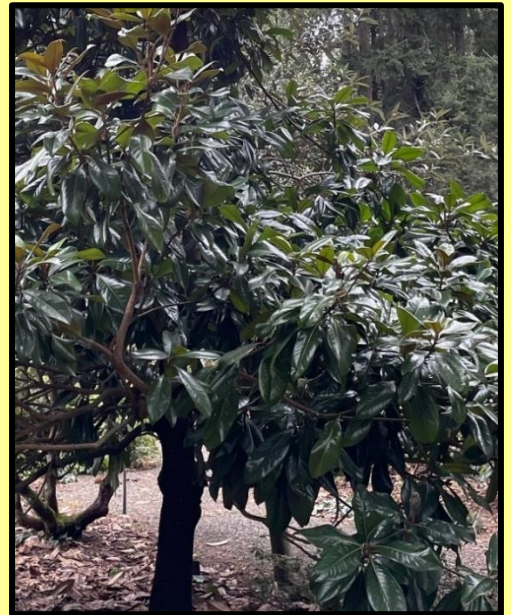
Water is the most important substance in a tree: water comprises nearly 80% of tree trunks and branches. That's a lot of water! Trees release water through their leaves; if they kept their leaves in the winter, trees would lose too much of their water and die. So, they drop their leaves.

As you walk along the path, **find trees that have dropped their leaves**. They are called broadleaf deciduous trees. They dropped their leaves so they wouldn't lose too much water and die.



Find **trees that still have their dead leaves**. Remember the Witch Hazel with yellow flowers by the gazebo? Its dead brown leaves were still hanging on. And look at the Pin Oak tree in this photo still covered with dead leaves! When trees hold onto their dead leaves it is called marcescence. They will eventually lose their dead leaves in the spring, but in winter they are interesting to look at. Keeping their leaves does not harm the tree. Scientists believe that trees that hold onto their dead leaves have some benefits. For example, dead leaves may be protecting tender twigs and buds that are growing on the branches.

Some trees do not drop their living leaves, yet the leaves do not freeze or lose water. As you walk through the Legacy and Smith-Mossman Gardens, find trees with green leaves. Let's explore why their leaves don't freeze or lose water in winter.



Needle-leaved trees hold onto their needles during winter. Needles are small so they don't lose much water, and they have a waxy outer coating that keeps water in. The Viburnum Evergreen Shrub in Legacy Garden has thick leathery leaves that keep water in (touch them!). Magnolia and Rhododendron leaves are thick and waxy, which helps retain water.

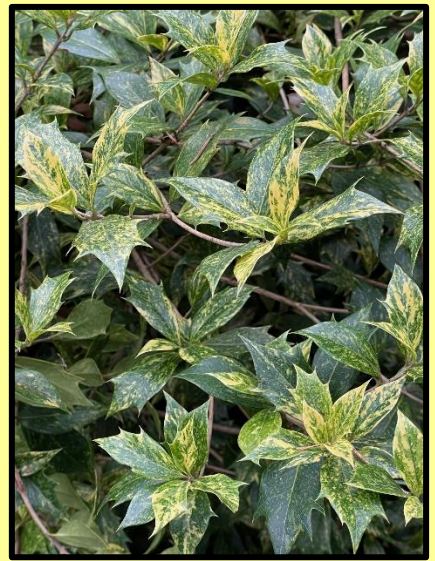
Trees change the liquid inside their cells to be more sugary, which keeps the cells in the tree from freezing and bursting like a frozen water pipe. Trees make their own anti-freeze! Our trees are busy during winter!

Just as some trees keep their dead or living leaves during winter, **some trees hold onto their seed cones and seed pods.** Some seed pods are big like the Magnolia Tree seed pod and some are small like the Japanese Cedar seed cones.



It is time for a treasure hunt! **Walk through the Legacy and Smith-Mossman Gardens** and look for stunning **yellow foliage, colorful berries, flowering Hellebores, and fragrant Sarcococca blossoms** (smell them!). Hunt for **colorful buds**—hints of blooms to come but lovely right now—and hanging **tassels** of various colors. And don't miss all the **variegated leaves** that stand out during gray winter days. Below are photos of some of the gems you will see if you look up, down, and all around.





The Back Story

The Lake Wilderness Arboretum is in a temperate coniferous forest biome. That means we have warm summers, cool winters, a high level of precipitation, and plenty of Douglas fir trees, mosses, ferns, and shrubs. You may think that our gray and rainy winters mean it is time for plants and animals to sleep. But all that moisture helps many animals and plants remain active. For example, redwood tree seeds are thick and have a tough seed coat that requires cold moist weather to awaken them and begin the sprouting process. Peony flowers need cold temperatures to form buds. And although some animals have migrated to warmer places, many remain.

Today you saw the Arboretum with new eyes: eyes that see forms and shapes and winter colors, eyes that see evidence of animals at work in cold weather. There are many winter wonders in the Arboretum; which are your favorites? Come back soon and bring friends to explore the winter wonders of our Arboretum!