Secrets under Snow and Ice: A Guided Audio Tour of The Morton Arboretum

West Side Loop

[Narrator] Welcome to this driving tour of the Arboretum's West Side. You'll need to veer off on the alternate route just after Thornhill. Please take a few minutes to adjust your volume now. This tour works best when experienced between 10 and 15 miles per hour. While you shouldn't have to adjust your audio too much, you'll have a chance at each of the major landmarks on this route to pause and continue. In the meantime, be sure to follow all posted signs and rules of the road.

[Cindy] Well, hello! My name is Cindy and for the past seven years I've had the pleasure of driving the tram and sharing nature's secrets here at The Morton Arboretum. Whether you are driving the roadways or walking some of our trails I'm delighted you are joining me today to talk about some wonderful places on the West Side.

[Cindy] Because the leaves have fallen from the deciduous trees we are more likely to get a glimpse of our deer, squirrels, coyotes, or fox. Watch for prints in the snow indicating animals are still active around the area. A paw print for the coyote is similar to a domestic dog with their claws evident in the impression. Many mammals remain secluded in their shelters during severe storms and then make a temporary appearance after the weather improves. After a winter storm has subsided, you may see more of the fox, squirrels, raccoons, and even skunks in search of food.

[Cindy] Most of our mammals will stay active throughout the winter, relying on thick winter fur and the accumulation of fat for survival. Rabbits and deer will take naps and then search daily for food, primarily looking for plants, grasses, berries, and even tree bark during the winter. This is why you see the white wrappings around the tree trunks of some of our young saplings, as our crews try to keep the nibbling on tree bark to a minimum. The squirrels and the field mice will also rely on seeds and nuts that they hid in the fall.

[Narrator] You should be nearing the Thornhill parking lot. The next section of the tour begins there. Feel free to pause and pull over if you're running ahead or tap on number two if you're running behind. You will need to veer left on the alternate route to Lake Marmo just ahead.

[Cindy] Drive the alternate route toward Lake Marmo to enjoy the serenity and the beauty of the trees along the way. At this time of year the bare trees allow you to see much farther than when the area was bursting with summer's green leaves or the colorful foliage in the fall. Look for patterns in the bark or appreciate the overall shapes of the majestic oaks and maples or the numerous conifers that maintain the greenery in these cold winter months.
Winter is serious business in the woodland. Ice storms, heavy snows, and high winds can devastate trees and branches and older trees a bitter winter with high winds and little snow can also kill perennial plants and animal survival could be very challenging.

Off to the north or right side of the road near P27 is where you will find a collection of witch hazel. These shrubs provide winter color and fragrance when it blooms in early winter. Winter blossoms? That's right, witch hazel has yellowish blooms in November and December. After pollination by some equally hearty insects, the seeds are contained in a hard gray capsule and they last all winter, spring, and summer then next fall these capsules explode, sending seeds up to 25 feet from the shrub.

And please don't worry about the large trees around the lake. The larch are known for dropping all their needles in the fall and then wait until spring to regrow their short needles. Unlike most conifers that stay green throughout the year -- such as yews, spruce, and hemlock -- the larch, the bald cypress, and the dawn redwood are conifers that drop their needles and will regrow them in the spring.

The shallow waters of Lake Marmo will be frozen at times throughout the winter. So where are the frogs and the fish and the turtles? In the middle of winter, as the pond water gets colder, aquatic animals start eating less and eventually enter a torpor state, becoming inactive and will reserve energy for winter survival. This is commonly called hibernation.

Cooler water temperatures will provide healthy levels of dissolved oxygen but if the water gets too cold it can impact the fish metabolism, the growth rate, and reproduction. Warmer water settles to the bottom while cold air cycles up near the surface. The fish prefer deep, still water rather than a current which requires more energy and oxygen use. Some fish may even burrow into the sediment at the bottom of the pond to keep warm. If the fish need to eat, algae is present.

Turtles and frogs are hibernating down under the mud taking a long nap, not needing any food until spring. The snow and ice covering the surface will help insulate the pond from the changing outside temperatures. However, a sustained hard freeze that reaches the bottom mud can wipe out the hibernating bullfrog tadpoles, fish, and frogs.

We generally think of migration to warmer climates for animals such as songbirds, butterflies, or geese -- but did you ever think of insects, spiders, reptiles, and amphibians as migrating? Well, they tend to accomplish a downward migration in the winter months. These animals stick around but they'll dig down below the frost line to survive -- which is anywhere from 20 to 30 inches in northern Illinois. Snow will help provide a protective, insulating layer for both plants and animals. The lack of sufficient snow cover can cause damage and hardship. Even more dangerous to hibernators are the intermittent warm and then cold spells.
[Cindy] So not all insects will die in winter; some will hibernate and others remain active throughout the year. Check the south side of trees on sunnier days for beetles. Look at the base of some trees for what appears to be a sprinkling of black pepper. The individual specks are springtails which will leap into the air. This is good news for our birds that depend on insects as a good part of their diet.

[Cindy] Whether you are driving or walking I hope you discover how the Arboretum clears your mind enriches your soul and takes away stress and can open your eyes to a whole new world. Take a little time to observe the shadows falling on the snow-covered trails or the sun's rays glistening in the snow, clinging to the branches. Please continue to connect with nature; your membership to the Arboretum will help us make a world that is greener, healthier, and a more beautiful place.

[Narrator] You should be nearing the junction near Parking Lot 30. The next section of the tour begins there. Feel free to pause and pull over if you're running ahead or tap on number three if you're running behind.

[Vicki] Hi, folks! This is Vicki. Today I would like to focus on the predators you will find here and discuss their prey and predatory habits.

[Vicki] The red-tailed hawk, one of several species of hawk that make the Arboretum home, is the most visible predator in the winter. Look for it perched in the branches of the leafless trees throughout the Arboretum. The red-tailed hawk is a raptor, a class of birds named for the large talons on their feet used in catching their prey. These predators are opportunistic hunters that eat a variety of prey. They are diurnal and are dependent upon prey that is active during the day like they are. Common prey in winter are squirrels -- especially when snow is present. Squirrels don't hibernate and are easier to see while trees are bare and snow lies on the ground. Smaller rodents can travel beneath the snow and may be hidden to these birds. Red-tailed hawks hunt from a perch, sighting their prey and then swooping down to catch and crush it in its talons.

[Vicki] The nocturnal counterpart of the hawk is the owl. Several species of owl can be found here, but I will focus on the largest. The great horned owl is the largest night raptor at the Arboretum, fairly equal in proportion to the red-tailed hawk at an average of 22 inches tall with a four-foot wingspan. It is a hunter to be reckoned with. The great horned owl has eyes that are roughly the size of humans, giving it great capacity to take in light. It is known for its silent flight, scooping up prey and carrying it back into the tree canopy. Its winter diet, like the hawk’s, is dependent upon the winter habits of the prey it favors. Unlike the hawk, the great horned owl’s diet consists mainly of three species: rabbits, mice, and voles. Nocturnal predators require nocturnal prey, making mice and voles the most available. The great horned owl hunts from around 8:30 p.m. until 12 midnight but in winter when food may be more scarce it may also be active from 4:30 a.m. until sunrise.
Our largest predator at the Arboretum is the coyote. The coyote is an apex predator here, meaning it has no natural predators within its habitat -- except, of course, for man. The coyote is at home in woodlands like our raptors but also in open areas like savannas, meadows, and prairies. It is an omnivore and will eat a varied diet including berries and fruits, insects, reptiles, amphibians, and fish -- particularly spring through fall. However, ninety percent of its diet consists of mammals. Coyotes are crepuscular, meaning they are most active at dawn and dusk. Deer and rabbit are also crepuscular by nature, allowing the coyote to feed without much competition from raptors. If you travel past Bobolink or Godshalk Meadows or along the banks of the DuPage River in the early morning or evening hours, look for coyote along the tree or shrub line.

As we approach the visitor center I encourage you to explore our roads and trails on the East and West Sides again with a new eye to the variety of habitats and animals that depend upon the many and varied trees of The Morton Arboretum. Thank you for your time and for your continued support.

This concludes the West Side tour.