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Backyard



Beaver Hills Biosphere Reserve




NATURE
ALBERTA



Beaver Hills Biosphere Reserve

What is a Biosphere Reserve?

A Biosphere Reserve is an area where biodiversity meets sustainable development. This means that the region is home to many different kinds of animals and plants, as well as people who live, work, and play there. It's not what you might think of as a nature preserve, although there are protected areas within the biosphere region. The idea is to show how industries can work and people can live alongside these ecologically important places while conserving the environment — keeping the plants, animals, air, water, and land healthy.



Biosphere Reserves are made up of three land-use elements:

1. Core protected area: legislatively (meaning under the law) protected areas such as national and provincial parks, focused on conserving biodiversity with minimal ecosystem disturbance.
2. Buffer zone: usually surrounding the core protected areas, there's an emphasis on conservation while environmentally sound human activity takes place.
3. Transition area: areas where people live and work.

There are Biosphere Reserves all over the world. They are designated by UNESCO: the United Nations Educational, Scientific and Cultural Organization. There are 18 of them in Canada, and two in Alberta. In this book, we're going to explore the Beaver Hills Biosphere Reserve.



Beaver Hills Biosphere Reserve Map

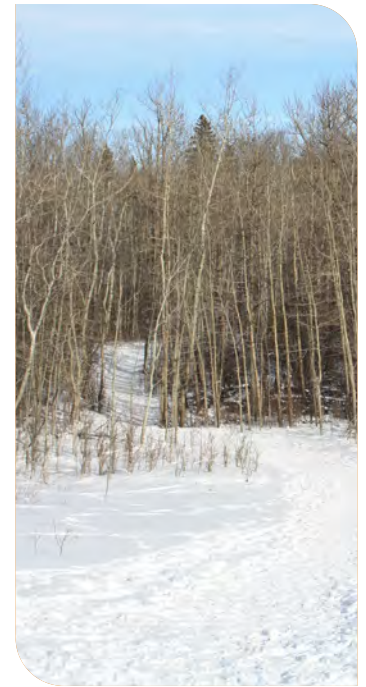
On the map, you'll see many places the public can visit to explore and appreciate natural spaces. In this book, we'll talk about things to see and do at:

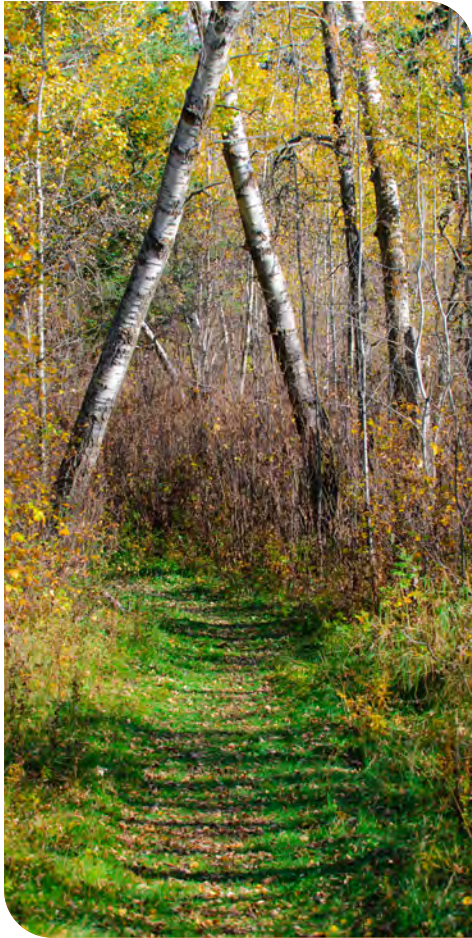
- ① Elk Island National Park
- ② Miquelon Lake Provincial Park
- ③ the Strathcona Wilderness Centre and Beaver Hills Biodiversity Trail

What Makes Beaver Hills Special?

The story of the Beaver Hills region goes back over 10,000 years. The whole area used to be covered by a huge sheet of ice over a kilometre thick. As the climate warmed and this glacier receded (melted and shrank), it changed the landscape, creating what's known as a moraine. Sediment (rocks, rubble, and dirt) left behind created hills, and the meltwater settled in depressions, creating ponds. This terrain is also known as "knob and kettle."

The resulting landscape is made up of a mix of forest, lakes, and wetlands that provided an ideal space for a variety of wildlife. The region forms a sort of transitional zone between the aspen parkland to the south and the boreal forest to the north. That's why you'll find plant and animal species from both of those region types in Beaver Hills.

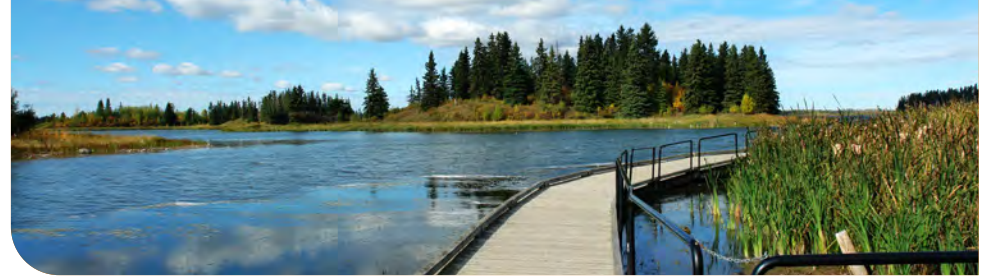




Early settlers did not find the hilly terrain and rocky soil ideal for farming, so much of the region has gone undeveloped. It remains an important space for wildlife to live and travel through — and for people to enjoy them, from a respectful distance!

The traditional name of the land is Amiskwacyi, which is Cree for “the beaver hills.”

As we explore the Beaver Hills Biosphere Reserve, we acknowledge that it is located on Treaty 6 territory, a traditional gathering place and travelling route of the Blackfoot, Cree, Saulteaux, Dene, Nakota Sioux, and later the Métis among others. Indigenous people stewarded these lands for thousands of years and we recognize with gratitude that we tread in generations of footsteps.



DESTINATION 1

Elk Island National Park

Just a short drive east of Edmonton, Elk Island National Park is a very welcoming place for a day trip or overnight camping. This is a great place for families to enjoy a nature experience close to home.

Before You Go: Visit parks.canada.gc.ca/elkisland for updates on park activities, conditions, and events. You can also call 780-922-5790 or 1-888-773-8888 (toll-free) for more information.

There is a fee for park entry. Youth 17 and under are free. Visit the website for the latest rates.

Driving Directions: From Edmonton, travel east on Highway 16 (Yellowhead Trail) for about 35 minutes. The first large Elk Island Park sign on the highway marks the park boundary. The main park gate (South Entrance) is another 7 km east. Fill your gas tank before you leave the city; there's no gas station in the park.



Elk Island caters to all skill levels of campers, offering everything from true backcountry campsites, to equipped campsites (for those who don't have their own camping equipment), to “comfort camping” in “oTENTiks,” a blend of a tent and an a-frame cabin with room for six. They even offer Learn to Camp programs.





Warm-Weather Activities:

Picnicking	Paddling
Camping	(bring your own or Canoe/Kayak rentals available at Astotin Lake)
Hiking	Bird and Wildlife Watching
Cycling	Stargazing

Winter Activities:

Cross-country Skiing	Winter Camping
Snowshoeing	Bird and Wildlife Watching



Tip: Visit the Astotin Theatre (travel north on Elk Island Parkway to reach the Astotin Lake Recreation Area) to borrow a free Discovery Kit, filled with tools and guides to help you explore.

Animal Lovers...

Elk Island Park is home to many magnificent animal species, including elk (of course!), moose, beavers, white-tailed deer, mule deer, coyotes, the occasional black bear, and the world-renowned bison populations, both plains bison and wood bison. Plus, over 250 species of birds throughout the year! Animals are most active at dawn and dusk, so that's the best time to watch for them. Always keep a safe distance from wildlife (100 metres) and never entice (try to feed) or approach.



Tip: To keep a safe distance, use the "rule of thumb." Hold your fist straight in front of you with your thumb up. Cover the animal in your view with your thumb. If it's completely covered (when standing sideways), you're probably about 100 metres away. If your thumb doesn't completely cover the animal, you should slowly move further away.

Pets are welcome in the park, but must be kept on a leash at all times, and you have to clean up after them.



Be "Bison Wise"

The wood bison is the largest land animal in North America. They and their cousins, the plains bison, once roamed North America in the millions. But in the span of a single century (the 1800s), as human settlers expanded across the continent, the bison population declined to a few hundred animals.

The species was saved from extinction by conservation efforts. Between 1907 and 1912, more than 700 bison were shipped by train to Elk Island National Park. Today, there are more bison in the park than there were in all of North America in 1890! The park provides bison to conservation initiatives around the world. There are bison living in Alaska, Scotland, and Russia that are descended from the Elk Island herd.

It's exciting to see these huge mammals for real, but it's important to remember that these are powerful, wild animals. Follow these tips to keep bison encounters safe.

If you're in a car and encounter bison on a roadway, stay in the vehicle. Give them the right of way. Drive slowly; do not honk your horn or drive aggressively. Stop and view them only from a distance if it is safe (use the 100-metre rule of thumb described on the previous page). Take a great photo, then move on to keep traffic flowing.

If you're on foot or cycling, be aware of your surroundings and watch and listen for wildlife. Do not approach or entice (try to attract or feed) wild animals. If you encounter them on a trail, wait for them to move on or slowly back away. Hiking and biking are quiet; try to make some noise to avoid startling animals. Keep dogs on a leash and under control at all times.



Never try to chase or scare bison away. Never try to cycle or walk through a herd; wait for them to move on, or turn around the way you came. Never come between two animals, especially a cow and her calf.

Be especially cautious in May and June, when cows are very protective of newborn calves, and during mating season in July and August, when bulls are more aggressive.

Bison give off warning signs when they get upset, including:

- snorting and shaking their head
- turning around, raising their tail, and defecating (pooping)
- stops grazing to stare
- pawing the ground
- raising their tail
- false charges

If you see a bison showing any of these warning signs, it's time to slowly move away.



Bison Behaviour

Check off any of the activities you see bison doing:

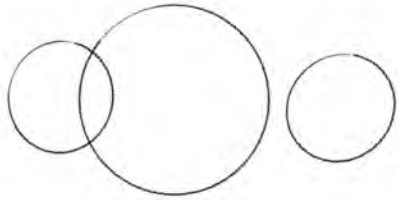
- ☐ Grazing (usually at dusk and nighttime).
- ☐ Travelling with or nursing calves.
- ☐ Wallowing: rolling around in the dirt, taking a "dust bath."
- ☐ Rubbing horns on trees.
- ☐ Running or charging.
- ☐ Fighting or butting heads (usually during mating season in July and August).
- ☐ Swimming. (Yes, bison are great swimmers!)
- ☐ In wintertime, shovelling snow with their head (to uncover vegetation to eat).



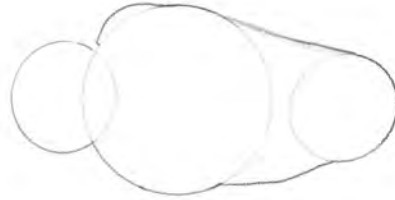


How to Draw a Bison

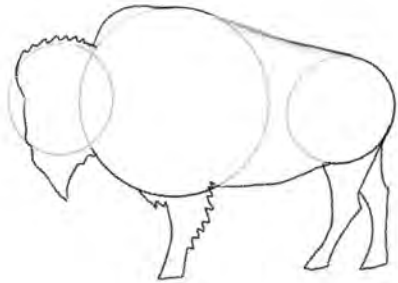
Follow along and in 5 simple steps, you'll be on your way to starting your own herd of bison!



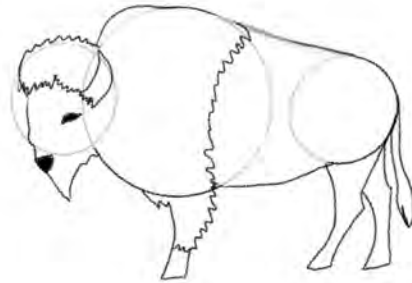
Step 1: Get the proportions right.



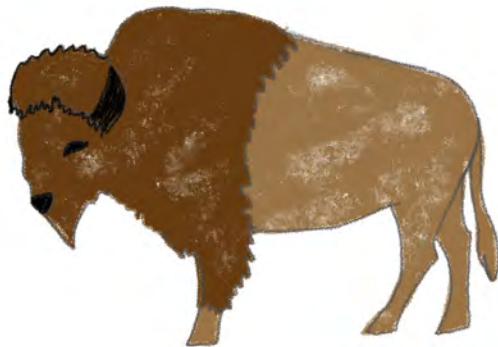
Step 2: Connect the dots. Erase the extra.



Step 3: Add legs and head.



Step 4: Fill in more details.



Step 5: Colour your creation!

My Bison Drawing



Bison Bio: Bison are BIG! The wood bison is the largest land animal in North America, with bulls (males) standing up to six feet (1.8 metres) at the shoulder, measuring 12.5 feet (3.8 metres) long, and weighing up to 2,000 pounds (over 900 kilograms).

Despite their massive size, bison are quick. They can reach running speeds of up to 55 kilometres per hour and can jump up to six feet high!

A bison's thick, shaggy coat is double-layered for warmth in winter. They shed the outer layer in springtime.

Baby bison's fur is orange-red when they're born. It turns dark brown after a few months.

Tail Talk: When a bison is calm, its tail hangs down and swishes. When alarmed or angry, the tail sticks straight up.



A. Cole



DESTINATION 2

Miquelon Lake Provincial Park

Miquelon Lake Provincial Park is located southeast of Edmonton and north of Camrose. It's a wonderful spot for a day trip — enjoy a picnic, build a sandcastle, and have fun on the playground on the lakeside beach! You can also explore poplar, aspen, and white spruce forests on 20 kilometres of multi-use trails, suitable for hiking and biking in the summer and snowshoeing and cross-country skiing in winter.

They typically have a full schedule of activities and events, especially in the summertime. Check out the Park Centre for interpretive programs, guided activities, presentations, and more.

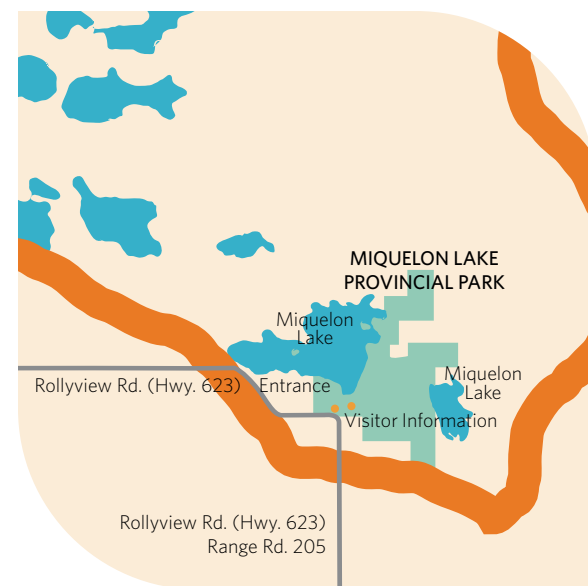
They offer campsites with amenities like power, showers, toilets, firepits, and picnic tables, as well as fully-furnished comfort camping sites. Miquelon Lake is a great destination for a close-to-home nature visit!

Before You Go: Visit albertaparks.ca/miquelon-lake to help plan your visit. You'll find updates on park activities, events, and conditions. Call 780-672-7274 for more information.

There's no fee for day use (a picnic on the beach), but there are camping fees.

Driving Directions: From Edmonton, use Anthony Henday Drive to get to Highway 14 going east. Turn south on Highway 21. Take that all the way to Highway 623, where you'll turn east and travel on 623 until you reach the park entrance. (Alternatively, you can also get to Highway 21 by taking Highway 2 south and turning east on 625 at Nisku.) It's about a 50-minute drive.

From Camrose, take Highway 833 north. Turn west on Highway 617. Turn north onto Range Road 205 and take that all the way to the park entrance. The trip will take about 25 minutes.



Things To Do

Warm-Weather Activities:

Camping
Hiking
Cycling (Trail or paved road)
Paddling (Canoe/Kayak)
Bird and Wildlife Watching
Stargazing

The lake is not suitable for swimming.

Winter Activities:

Snowshoeing
Cross-Country Skiing
Winter Camping



Tip: During the summer season, you can pick up a Family Discovery Pack from the Park Centre full of items that will help guide your own discoveries of life in the park.



Animal Lovers...

The terrain around Miquelon Lake, a mix of forest and wetland, makes great wildlife habitat. You may spot moose, white-tailed deer, mule deer, coyotes, red fox, snowshoe hares, beavers, muskrats, fishers, skunks, and porcupines... perhaps even signs of large predators like black bears, grey wolves, cougars, and lynx passing through. And the park is home to over 200 species of birds!

Pets are allowed in the provincial park and on all trails, but must be on a leash at all times, and you have to clean up after them.



This Park is for the Birds!

Every year, waves of migrating birds flock to the park. The lake and wetlands provide habitat and breeding ground for waterfowl, shorebirds. Songbirds sing as they fly about the park's forest and flowering shrubs. Red-tailed hawks soar the skies during the day and great horned owls hunt at night.

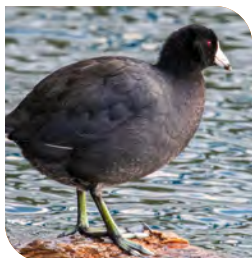
The amazing array of bird life led to the area being designated as a bird sanctuary in the 1920s before it became a provincial park in 1958. Today, the park is recognized as an international Important Bird Area (IBA) to help protect bird species and their habitat.





Bird Watching Scavenger Hunt

Check off these birds when you see them. Note that some species are here year-round, but others migrate through at different times of year, so they may not all be here at the same time. Keep your "eagle eyes" open!



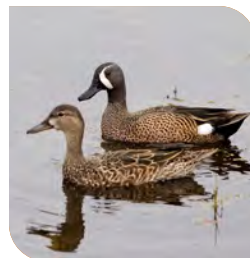
☐ American Coot
(Check out their neat feet!)



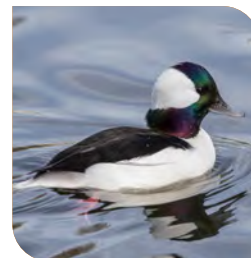
☐ Black-capped Chickadee



☐ Blue Jay



☐ Blue-winged Teal



☐ Bufflehead



☐ Canada Goose



☐ Cedar Waxwing



☐ Chipping Sparrow



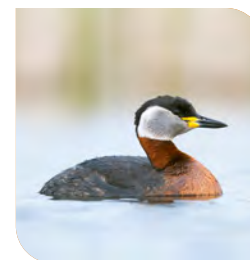
☐ Great Horned Owl



☐ Killdeer



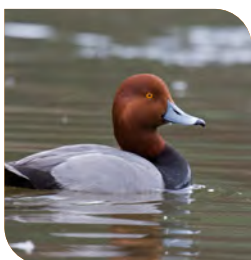
☐ Mallard



☐ Red-necked Grebe



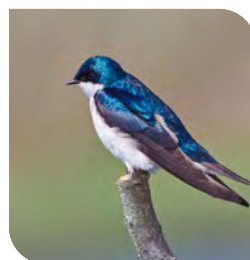
☐ Red-tailed Hawk



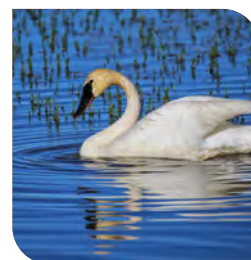
☐ Redhead Duck



☐ Ruffed Grouse



☐ Tree Swallow



☐ Trumpeter Swan



☐ White-throated Sparrow



Dark Night, Stars Bright

Being so close to Edmonton and Camrose, Miquelon Lake is a great spot for a day trip. But there are lots of reasons to camp out overnight... millions of them, actually — the stars!

If you're used to the night sky in the city, you may be amazed by the sheer number of stars you'll see on a clear night in the park. Miquelon Lake Provincial Park is a partner in the Beaver Hills Dark Sky Preserve. A dark sky preserve is an area where artificial light is kept to a minimum to reduce or eliminate light pollution. This helps people get a better view of the night sky, but that's not all. Too much artificial light disrupts the natural activities of animals and even affects how plants flower and grow. The right amount of darkness makes for a healthier ecosystem.

You can help reduce light pollution in the city by using outdoor lights only when and where they're needed. Use shielded light fixtures and direct them downward. Use light timers and motion sensors so lights are only on when needed.

While any clear night is a great chance for stargazing in the park, there are a couple annual events that fill the sky with "shooting stars" — meteor showers! The Perseid meteor shower is a summertime spectacular, usually running from mid/late July through August, peaking around August 11-12. The Geminid meteor shower peaks around December 13-14, which around here likely means cold weather and could also mean cloudy skies. But if you're willing to bundle up and the sky is clear, you'll be treated to a dazzling display!



Connect the Dots of the constellations you spot.

Did you know? The Big Dipper constellation goes by a few different names, like *The Plough*, but its official name "Ursa Major" means Great She-Bear! You can spot this momma bear, and her cub, Ursa Minor, ambling across the night sky by finding the very brightest star in the sky, Polaris, in baby bear's foot and following it in a straight line, right to mom!



☐ The Big Dipper (Ursa Major)



☐ The Little Dipper (Ursa Minor). The North Star (Polaris) is at the end of the Little Dipper's "handle."



☐ Cassiopeia



☐ Orion (look for the line of three bright stars that make up his belt)



DESTINATION 3

Strathcona Wilderness Centre and Beaver Hills Biodiversity Trail

Maintained by the municipality of Strathcona County, the Strathcona Wilderness Centre offers year-round outdoor experiences close to home, about a half-hour drive east of Edmonton. You'll find more than 12 km of wide, easy-to-manage, well-connected trails, perfect for hiking and nature walks in warm weather. In wintertime, the trails are groomed for cross-country skiing. Ski equipment is available for rent; they even have gear for really small children so the whole family can enjoy an outdoor winter adventure!

In addition to the activities and interpretive programs offered at the Strathcona Wilderness Centre, they also maintain the nearby Beaver Hills Biodiversity Trail, which gives visitors the chance to experience the ecological and historical wonder of the Beaver Hills Biosphere Reserve on a short, easy trail.

It is a place of connection. You'll see boreal forest connected by beaver-maintained wetlands to aspen parkland, creating precious habitat for diverse wildlife. You'll walk a path travelled for thousands of years by Indigenous people who gathered berries and medicinal plants that still grow here today.

You can select a shorter, 800-metre trail loop, which is great for

families with very small children or those who prefer or require a shorter experience. Those who prefer a longer journey can continue along the 2.5-kilometre trail. The trail is quite accessible for visitors in strollers or with mobility aids (there are also accessible washrooms at the trail head); it's largely flat with some rolling hills. However, it's a grass trail, so it can be a little wet in the lower-lying areas on rainy days.

There are lots of benches along the trail where you can relax and take in the sounds and scenery. At about the midway point of the main trail, there's a boardwalk overlooking two wetlands where you'll be able to see lots of evidence of beaver activity, including ponds and dams.

Before You Go: Visit the Strathcona Wilderness Centre website for updates on trail conditions, events, and programs: strathcona.ca/recreation-events/recreation-centres/strathcona-wilderness-centre

The Centre is open daily 9 a.m. to 4:30 p.m. There are no admission fees in the summer. In the winter, there's a fee to use the cross-country ski trails, but hiking or snowshoeing is free. Pets are not allowed at the Strathcona Wilderness Centre.

Strathcona County's Beaver Hills Initiative website has details and resources about the Biodiversity Trail, including trail maps:

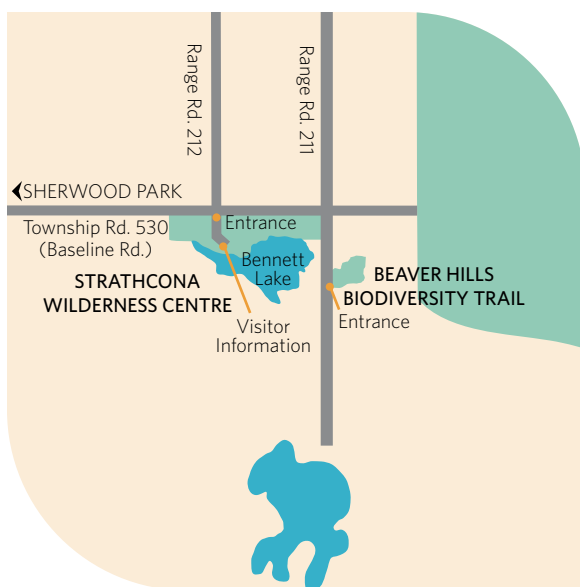
strathcona.ca/agriculture-environment/environment-and-conservation/beaver-hills-initiative

The area is open daily 7 a.m. to 11 p.m. There's no fee to visit and walk the trails. Pets are allowed on the Biodiversity Trail, but must be on a leash at all times, and you have to clean up after them.

Call 780-922-3939 for more information about both sites.



Strathcona County



Driving Directions: From south Edmonton or Sherwood Park, take Baseline Road east (it will become Township Road 530). To get to the Strathcona Wilderness Centre, turn right on Range Road 212. The entrance is on the left side of the road. To directly access the Biodiversity Trail, go a little farther on Baseline Road and turn right on Range Road 211. Then keep an eye on the left side of the road for the entrance.

If you're coming from north Edmonton, you'll probably find it more convenient to take Yellowhead Trail (Highway 16) east, then turn off on Range Road 212 for the Strathcona Wilderness Centre or Range Road 211 for the Biodiversity Trail. Watch for entrances on the left side of the road after you pass Township Road 530.



Things To Do at Strathcona Wilderness Centre

Warm-Weather Activities:

Hiking
Canoeing
Disc Golf
Picnicking
Rustic Camping
Bird and Wildlife Watching

Winter Activities:

Cross-country Skiing
Winter Hiking
Snowshoeing
Bird and Wildlife Watching



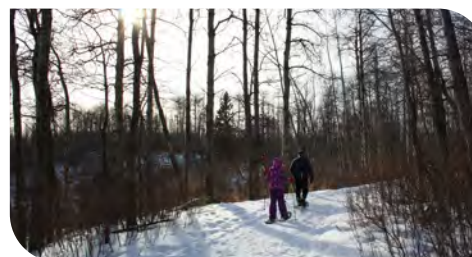
Things To Do at Beaver Hills Biodiversity Trail

Warm-Weather Activities:

Hiking
Picnicking
Bird and Wildlife Watching

Winter Activities:

Winter Hiking
Snowshoeing
Bird and Wildlife Watching

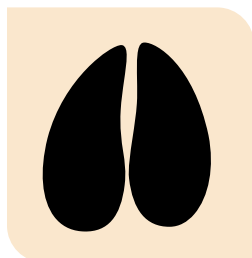




Animal Tracker

Depending on what time of day you visit the Wilderness Centre or hike the Biodiversity Trail, you may or may not see active wildlife. But you can always keep an eye out for signs of their passing — tracks in the ground or snow!

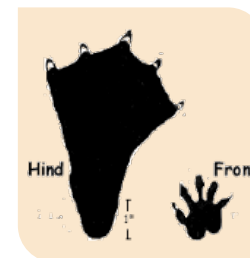
Check off the animal tracks that you see.


☐ Moose

☐ Mule Deer

☐ White-tailed Deer

☐ Coyote

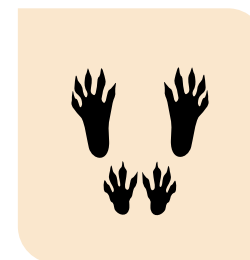
☐ Snowshoe Hare

☐ Beaver

☐ Muskrat

☐ Fisher

☐ Porcupine

☐ Red Fox

☐ Skunk

☐ Red Squirrel


The big animal that left this track on the Beaverhills Biosphere Trail is on this page...

Who am I?



The tiny animal that left this track at Strathcona Wilderness Centre is on this page...

Who am I?



Watch and Learn!

The Striking Balance documentary series features Canadian biospheres. Watch the Beaver Hills Biosphere Reserve episode to learn more about the connection between iconic species like beaver and bison and how they connect to the land and the people of the region.



[tvo.org/video/documentaries/
striking-balance-beaver-hills-biosphere-reserve](https://tvo.org/video/documentaries/striking-balance-beaver-hills-biosphere-reserve)



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