



## Beaver Lake Nature Walk

### Introduction

Beaver Lake, often described as a jewel in the centre of the park, is a much visited riparian and wetland feature unique to Stanley Park and in Vancouver. The one kilometre-long pathway encircling the lake allows visitors views of both native and introduced water lilies which cover most of the lake's surface as well as innumerable waterfowl and, of course, evidence of beavers at work.



You can access the trail to Beaver Lake from the Stanley Park Seawall through the two stone gateways beneath Stanley Park Drive flanking Beaver Creek where it emerges from the forest and flows into Burrard Inlet. The pathway on the north side of the creek, Ravine Trail, is wheelchair accessible and climbs up towards Beaver Lake at a grade generally between 3 and 5%. If you are cycling, you must dismount and walk your bike on these paths. The distance from the seawall, around the lake (including short side trips to two points of interest) and back to the seawall is 1.8 kilometres which should take you approximately 30 minutes to walk.

There are a few alternate ways to find your way to the Beaver Lake listed below in Getting to Beaver Lake. Regardless of the

route you choose to reach Beaver Lake, you are guaranteed to experience a rich diversity of ecosystems in Stanley Park. As you walk along, enjoy the sights, sounds, and smells. Use all your senses to explore and discover the amazing environment that surrounds you.

### The Evolution of Beaver Lake

Beaver Lake has undergone many geological changes. Following the retreat of the Cordilleran ice sheet at the end of the glaciation 10,000 years ago, this area was a shallow marine lagoon supporting a very different ecosystem than what you see today.



As the ice sheet retreated from British Columbia, the land mass rebounded faster than any other post-glacial region in the world and sea level at Beaver Lake rose by 130 m within 2,000 years. As the shallow lagoon was cut off

from the ocean by the rising land mass, it became a barren and dry bog, then a forested bog and finally, about 1,000 years ago, a freshwater pond that we now know as Beaver Lake.

Beaver Lake is undergoing rapid infilling, currently changing from lake to marsh, and soon to meadow. The fragrant water lilies that now cover most of the open water of the lake in summer were introduced to the lake in 1937. Their success has increased the rate at which Beaver Lake is transitioning from a lake to marsh ecosystem and the lake could completely disappear within a couple of decades. The Park Board intends

introduction

to restore Beaver Lake in order to continue its valuable contribution to biodiversity in the Stanley Park forest and to ensure it is maintained in perpetuity for the enjoyment of all.

### 1. Beaver Creek

As you head towards Beaver Lake from the seawall or Pipeline Road, you will be able to see and hear the sounds of Beaver Creek. Classified as a first order stream, it is short, steep, and well shaded as it flows from Beaver Lake to Burrard Inlet. This creek is one of three remaining of the original 47 salmon bearing streams in Vancouver. Salmon bearing streams require cold, clear, silt free, oxygen rich water, and they need vegetation in the riparian zone (the area along the edge of the stream bank). Much work has been required to rehabilitate key components of this ecosystem. Boulders, fallen trees and stumps add diversity to in-stream habitat. Water flowing around these objects results in both pools of slow moving water that create resting areas and sections of turbulent water that oxygenate the stream. Coastal cutthroat trout (a species at risk in BC) and coho salmon live in the stream year-round.

### 2. Arriving at the Lake



Both Beaver Lake and Ravine Trails emerge from the forest canopy at what appears to be a shallow woodland pond. It was named Beaver Lake by European settlers who observed beavers in the lake

around 1907. After a long absence, beavers are again living in this very shallow lake and are largely responsible for clearing away the water lilies, creating the area of open water in front of you. You can see the beaver lodge, which looks like a small island, about 30 m off shore.

An interpretive panel here, *The Incredible Shrinking Lake*, describes the process of succession from forest lake to meadow and then ultimately to forest.

You will also notice a weir or dam, which maintains the water level in Beaver Lake by controlling the rate of outflow. In 1916, the Vancouver Angling Club attempted to turn Beaver Lake into a profitable fishing location. A hatchery was established on nearby North Creek and the lake was stocked with trout and salmon but these efforts were abandoned in 1946. Three-spine stickleback is the dominant fish species surviving in Beaver Lake today.

Follow Beaver Lake Trail to your right, and proceed counterclockwise around the lake.

### 3. Insects Shape Our World

At the second viewing platform, about 90 m further along the trail, there is an interpretive panel, *Insects Shape Our World*, outlining the importance of insects in keeping our natural systems healthy. Look for colourful wood ducks and mallards as they dabble for vegetation and aquatic insects amongst the

lilies and buckbean (three rich green leaves with a stalk of white fuzzy flowers).

Great blue herons may often be seen patiently watching for sticklebacks, frogs or salamanders. You may observe one as it strikes its long beak into the water to catch prey.



You will notice salmonberry bushes growing along this section of trail. They provide habitat and food for a variety of songbirds such as the Swainson's thrush and the spotted towhee, a red-eyed bird

that buzzes. Look for the dark pink petals and yellow center of the salmonberry flowers in early spring and the beautiful red berries in late May and early June.

### 4. Nurse Stump

A large stump is visible about 115 m further along the trail on the left side. Now long past its time as a living tree, this stump is still an active participant in this ecosystem. Can you identify some of the benefits it provides? Look for an entrance to a hollow within the stump at its base. Hollows like this can be used as dens by mammals such as raccoons or squirrels. The stump is a resource for fungi and insects which aid in decomposing the wood, releasing nutrients to be used by other plants and organisms. Many nurse stumps like this in the park are relics of logging that occurred in the 1860s.



To the right side of the trail, you will see a section of western hemlock forest that is decaying due to hemlock dwarf mistletoe, a parasitic plant that spreads by discharging seeds at speeds up to 97 km/h and over distances of 15 m. It causes swelling in the trunk and erratic branch growth which

resemble the end of a witch's broom. There is no treatment and infections will kill the tree. In the interim, though, witch's brooms provide nesting and foraging habitat for mammals and birds, and are essential to the survival of the endangered Johnson's hairstreak butterfly that lives here.

### 5. Step into the Rainforest

Take a short detour when you reach the intersection of Beaver Lake Trail and Lake Trail to a nearby point of interest. Follow Lake Trail until it intersects with North Creek Trail, just after the wooden bridge. Turn right onto North Creek Trail and walk to a wooden viewing platform about 55 m along on the left.

You may notice a change in temperature, humidity, smells and sounds as you leave the lake and enter the coastal temperate rainforest. Stanley Park receives an average of 1.2 m of rain every year and has a very long growing season which allows the trees

to become so large. See if you can spot the main trees: western redcedar, Douglas-fir and western hemlock. Next to the viewing platform is a large nurse log. Look for moss growing on it and western hemlock seedlings growing along the top. As they grow larger and their root systems grow around the log and reach the ground, you are left with a curious sight as the log rots away, a straight row of trees standing on 'stilts'. Red huckleberry and salal bushes grow on the acidic decomposing wood of these logs.

Retrace your steps back to Lake Trail and proceed straight ahead to rejoin Beaver Lake Trail. Continue to the right.

## 6. Beaver Lake Bog



You may not be able to see the small bog that is hiding behind the trees, but this rare ecosystem is an important source of biodiversity in Stanley Park. Bog plants like Labrador tea and carnivorous round-leaved sundews inhabit this sensitive and nutrient poor environment. Look along the trail for the large green waxy leaves of skunk cabbage (also known as swamp lantern), which is easy to spot when flowering with its bright yellow spike. There is no mistaking the odour of this aptly named plant. First Nations peoples used the skunk cabbage leaves as cups and plates and to line berry baskets, bentwood boxes and steam pits.

## 7. Detour into a Douglas-fir Grove

There is another point of interest not far off the trail. Turn right on South Creek Trail and continue along about 30 m to a wooden viewing platform along on the right.

As you step onto the platform, look down South Creek Trail. Notice the even-aged stand of 125-year old Douglas-firs. This area was burned down during the great Vancouver fire in 1886 and was also a major blowdown area during the 2006 windstorm. Direct sunlight and ashy soils provided the necessary requirements to allow the Douglas-fir to thrive. Look for the large wildlife tree to the left, across the trail about 20 m away. This tall dead Douglas-fir has been left standing intentionally as it provides habitat and food for forest wildlife. Over 90 different plants and animals in BC's forests need wildlife trees for habitat. The Douglas squirrel, a small reddish brown mammal, feeds on the cones of this tree that can live to be over 800 years old. Listen for a "chickaree" as the Douglas squirrel warns off intruders.

Return back to Beaver Lake Trail and turn right.

## 8. Nocturnal Mammals



If you are walking along these forest trails as dusk approaches, keep your eyes open for the northern flying squirrel, another squirrel species in Stanley Park that is even more elusive than the Douglas squirrel. This nocturnal mammal jumps from tree to tree, crossing gaps up to 60 m wide. It does not fly but glides on skin stretched between its limbs called a patagium.

Bats are the only mammals that actually fly. Little brown bats, the most common species in the park, roost high up in the bark of Douglas-fir trees and emerge in the early evening to feed on insects above Beaver Lake. These extremely adept flyers eat half their weight in insects every night. The barred owl is another specially adapted nighttime flyer commonly seen around Beaver Lake. In the evening listen for its call: "Who cooks for you, who cooks for youuu alllll!"

## 9. Freshwater Fringe Teems with Life

8. On the left, about 35 m past Tisdall Walk and the tiny Zoo Creek, there is an interpretive panel, Freshwater Fringe Teems with Life, describing the rich diversity of wildlife using the riparian area surrounding the lake. In the spring, hardhack, sedges and invasive yellow flag iris grow along the shore of Beaver Lake. In the cathedral of trees that forms the backdrop, notice the candelabra-like spires of the dead tops of living western redcedars. These tops provide excellent perches for bald eagles and other raptors. If you are fortunate enough to see one, look for the distinctive white head and tail of an adult eagle as it soars on thermals (warm rising air). With eyesight four times better than a human's, this mighty bird will see you before you spot it.

A few minutes later, you will arrive back at Beaver Creek, having completed the loop around Beaver Lake. At this point, you can continue to the right on the portion of Beaver Lake Trail that will take you back to Pipeline Road or take Ravine Trail on the far side of the creek back down to the seawall.

## Getting to Beaver Lake

There are a few alternate ways to find your way to the Beaver Lake.

If you are cycling on the seawall and would like to continue to ride rather than walk your bike, continue along the seawall about 415 m past Ravine Trail to a trail heading up to Stanley Park Drive. Keep to the left, cross Stanley Park Drive and ride south along this one-way section of Pipeline Road about 460 m to the entrance to Beaver Lake Trail. Please note that cycling is only allowed on the section of Beaver Lake Trail from Pipeline Road to Lake Trail, which also allows cycling.

If driving or taking a park shuttle, you can park or alight on Pipeline Road and follow Beaver Lake Trail on the south side

of the creek which provides relatively level wheelchair access to the lake. You can also park on Stanley Park Drive and access trails on both sides of Beaver Creek but both trails are steep and not wheelchair accessible (the trail on the north side of the creek climbs from Ravine Trail at 10.5% for 14 m, then at 13.5% for 8 m before leveling off to 4% at the top). To walk from Pipeline Road, around the lake (including two very short side trips) and back to where you began is a distance of 1.5 kilometres and should take you approximately 25 minutes.

If you are arriving on public transit, you can easily walk to Beaver Lake from the Stanley Park bus loop. Walk north-west towards the entrance to the miniature train, use the crosswalk through the parking lot to the sidewalk along the west side of the parking lot and head down to Pipeline Road (about 200 m in total). Cross at the crosswalk to the west side of the road and walk north about 250 m to Tisdall Walk which will lead you a short distance (about 100 m) down to Beaver Lake. The lake is about a 10 minute walk from the bus loop. The entrance to the more level Beaver Lake Trail is about five minutes (about 300 m) further along Pipeline Road.



### Accessibility and Facilities

The routes indicated for this nature walk all have a compacted gravel surface suitable to accommodate wheelchairs. All of Beaver Lake Trail and the trails leading to the two points of interest are virtually level, Ravine Trail has a slope generally between 3% and 5% and Tisdall Walk has a slope ranging between 5% and 10% with a short section (10 m) up to 12%. To travel by wheelchair between the seawall and Pipeline Road, you must go via Beaver Lake due to the significant difference in elevation. There are no washrooms or drinking fountains in the vicinity.

Beaver Lake can also be reached from other directions in the park by a variety of forest trails, not all of which are considered wheelchair accessible.

### Additional Information

If you would like more information on the ecology of Stanley Park, please stop by the Stanley Park Nature House at Lost Lagoon. The Nature House is operated by the Stanley Park Ecology Society out of a former boat house located on the south shore of Lost Lagoon below the viewing belvedere at the west end of Alberni Street. It is open weekends all year round from 10:00 am to 4:00 pm and Tuesday through Sunday for extended hours in the summer. You can also visit the Stanley Park Ecology Society website at [www.stanleyparkecology.ca](http://www.stanleyparkecology.ca).

Photos by Stanley Park Ecology Society and Vancouver Park Board.