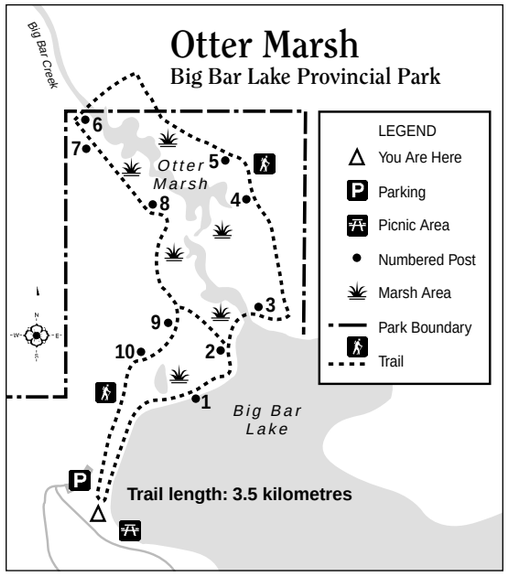
Your one-hour hike starts along the beach. At each numbered post, read the matching number in the brochure. This will tell you the special feature for the site.



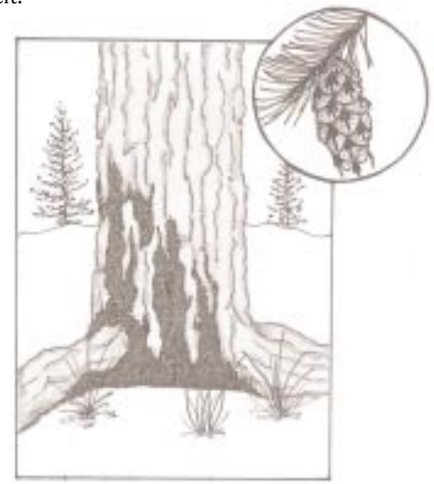
1. Sticks, Bugs and Weeds

Look closely at the shores of Big Bar Lake. In some places you will see logs on the shore or dead trees in the water. These are important parts of the lakeshore habitat. Insects find food and shelter under logs, then birds and fish, such as trout, eat the insects. Fallen trees provide shade, food and protection for trout. And did you know loons use decaying vegetation to build their nests at the water's edge? Beavers also use the lakeshore habitat. Along the trail look for stumps cut by beavers.

2. Giant of Time

By the time Alexander Mackenzie reached the Pacific Ocean in 1793, this Douglas-fir was over 100 years old. It has survived insects, high winds, drought, fire and, more recently, habitat change. Douglas-firs evolved with fire. The thick bark on mature trees insulates them from the heat of grass fires. Nearby young trees are killed by the fire. Result? Douglas-firs are well spaced in the forest. This lets their long roots get more nutrients. But people have fought forest fires here for the last several decades. Now, many young trees are crowding this old giant. Will it survive this, too?

Follow the right-hand trail. Watch for coyote droppings near the creek. This is a favourite marking site. After crossing the creek, the trail forks again. Stay left.



3. Meadows and Pines

Grass, pines and mountains – the view is idyllic. Pine forests and moist grasslands have existed here for thousands of years. But like the Douglas-fir forest, this habitat needs fire. Over the centuries, lightning and human-caused grass fires kept the pines in check and revitalized the grasses. See the young pines growing in the grass? Without fire to kill them, this meadow will become a pine forest. In larger protected areas, BC Parks uses fire as a tool to maintain natural ecosystems. By conducting controlled burns and allowing natural wildfires to burn, the age-old mix of forest and grass is re-established.

Caution

Black bears live in this area. Alert them by making noise as you hike. Please keep children in sight and keep pets leashed.

Recycle

Keep this brochure if you will read it again. If not, please return it to the brochure box at the day-use area. Thank you!

For More Information

BC Parks

http://wlapwww.gov.bc.ca/bcparks

BRITISH COLUMBIA

Ministry of Water, Land and Air Protection

02/2003

BC Parks Otter Marsh

INTERPRETIVE TRAIL

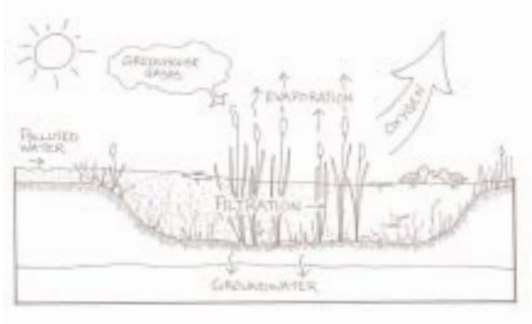
Big Bar Lake Provincial Park

Welcome to the Otter Marsh Interpretive Trail. This 3.5 kilometre hike will lead you through diverse habitats – the places where plants and animals live and grow. You will see natural processes, a wetland enhancement, fascinating geology and solutions to today's wildlife and wild land dilemmas.

Cariboo/Chilcotin/Coast

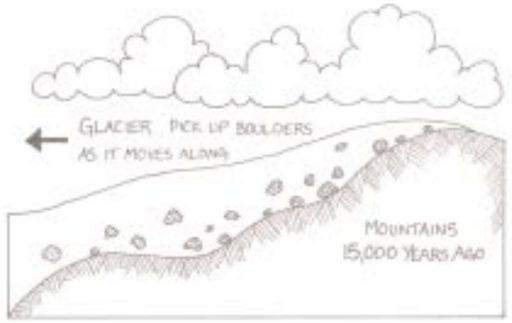
4. What Good is a Marsh?

Marshes are valuable for people and wildlife. Take water – marshes store and ration it during dry spells, prevent flooding and erosion. They also recharge ground water so people's wells keep flowing. Because marshes are teeming with life, lots of animals either live here or stop by for dinner. Marsh plants absorb pollutants from the water and air making both cleaner. Shade and water evaporation help prevent extreme temperatures in the area. Plants here produce oxygen and absorb greenhouse gases. And that reduces the impact of global warming. Marshes are important!



5. Mountains and Lava

Here's a nice view of the Marble Range. How did the geology shape the land? These mountains began as a great limestone shelf under an ancient sea 2,000 kilometres west of here. As earth's crustal plates moved, the shelf eventually collided with North America and later collisions lifted them up as mountains. Then came the lava – pouring out of the ground, flowing like water across the land and filling all the valleys. By the time it cooled, the lava had formed the great plateaus of the Cariboo and Chilcotin. See those boulders ahead and to your right? They are pieces broken from the lava plateau. So how did they get piled here? Study the picture of the flowing glacier and try to explain it. As you continue your hike, think of ways geology influences the habitats you see.



6. Helping Hands for Habitat

When Ducks Unlimited built this dam in 1987, it replaced an old broken beaver dam. Why build it? Otter Marsh is part of a larger important waterfowl and wildlife area. Ducks and geese need higher water levels for resting and feeding. More water also protects nests and young from predators and provides better food for many mammals. Look downstream. That is what Otter Marsh looked like with the beaver dam washed out. Now look upstream. The dead trees are the result of higher water levels. They provide perches for birds and their underwater roots protect fish. The increase in breeding ducks is also the result of higher water. Ducks Unlimited, in co-operation with BC Parks, carefully controls the water levels to simulate natural wet and dry marsh cycles. These cycles keep the marsh productive for all wildlife.

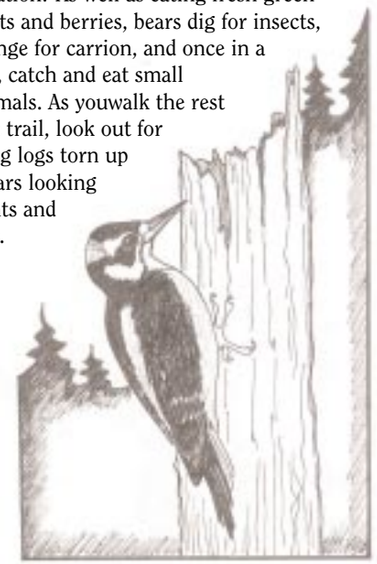
At the end of the dam, don't miss the trail. It goes left and through a gate in the fence.

7. Life and Death in a Pine Forest

Want to see a forest age? Watch as you hike this trail! Here you see a younger lodgepole pine forest. As you walk, you will see the trunks get bigger, the trees taller. Then you will see that many have died, most from insects and disease. Some are still standing but many have fallen. Look like a mess? There is an important life process going on here called succession. The standing dead trees become homes for insects that feed on the wood. Woodpeckers eat many of these insects. When the trees are blown down by the wind, other insects and fungi gradually turn the trees back into rich soil. The open space in the forest lets in more sunlight and new seedlings grow. Look for pine seedlings, signs of insects and woodpeckers.

Soopalallie and Bears

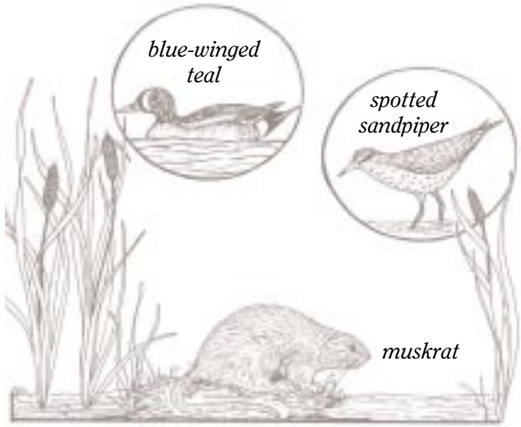
See the bushes with the dark green leaves? On the leaf's underside you will find silvery-white hairs and rusty brown spots. In summer these shrubs produce bright red berries that are edible but bitter. The bush is called soopalallie. It's also called bearberry – for good reason. It is a favourite food of black bears. Did you know that three quarters of a bear's diet is vegetation? As well as eating fresh green sprouts and berries, bears dig for insects, scavenge for carrion, and once in a while, catch and eat small mammals. As youwalk the rest of the trail, look out for rotting logs torn up by bears looking for ants and grubs.



8. Marsh Dwellers

How many birds and animals did you see at Otter Marsh? Some of the waterfowl that use this marsh are the cinnamon and blue-winged teals, ring-necked duck, redhead, lesser scaup, bufflehead, Barrow's goldeneye, and Canada goose. Have you noticed other birds nearby? Look for the red-winged blackbird, song sparrow and marsh wren perched near the water. Check exposed mud for spotted sandpipers. Northern harriers, with their white rumps, often swoop low over marsh and field. Osprey will dive for trout and bald eagles soar overhead or perch in trees. Less visible are the mammals: muskrat, beaver, mule deer, black bear, moose and the occasional river otter. Stand or sit quietly here for a few minutes and see what comes by.

As you approach the top of a small hill, take the right branch of the trail to the top.



9. River Under Ice

As you stand here, imagine you are covered by a huge glacier. The ice above you is almost 2 kilometres thick! That's how it looked here 15,000 years ago at the peak of the last ice age. From that time on, the world began to slowly get warmer. As the glacier melted, water, rock and gravel poured down through the cracks in the ice to the lava bedrock. There the water carved a river channel under the ice. As winter returned each year, the flow of water slowed – dropping its load of rock and gravel on the riverbed. The riverbed grew higher through the centuries. By 10,000 years ago all the ice was gone. The under-ice riverbed, called an esker, remains as the long gravel ridge you are standing on.

10. Dry Grassland – Wet Forest

Look at the contrast between these habitats! The esker is made of well-drained gravel – it won't hold water. Only this bunchgrass and a few other plants are adapted to the dryness. The low area between the eskers holds water well. White spruce, the dark green trees, grow well in wet areas so they are close to the pond. Lodgepole pines, the yellow-green trees, need much less water so they grow between the wet and dry spots. Now do you see how geology can influence habitats? Follow the esker back to the day-use area and see how geology also formed the natural gravel beach.

Isn't it amazing that so many different habitats can be found in such a small area! We hope you have enjoyed your hike.

Thanks to artist Chris Tunnoch, who volunteered her skills. She illustrated stops #2, 4, 5, 6, and 8.