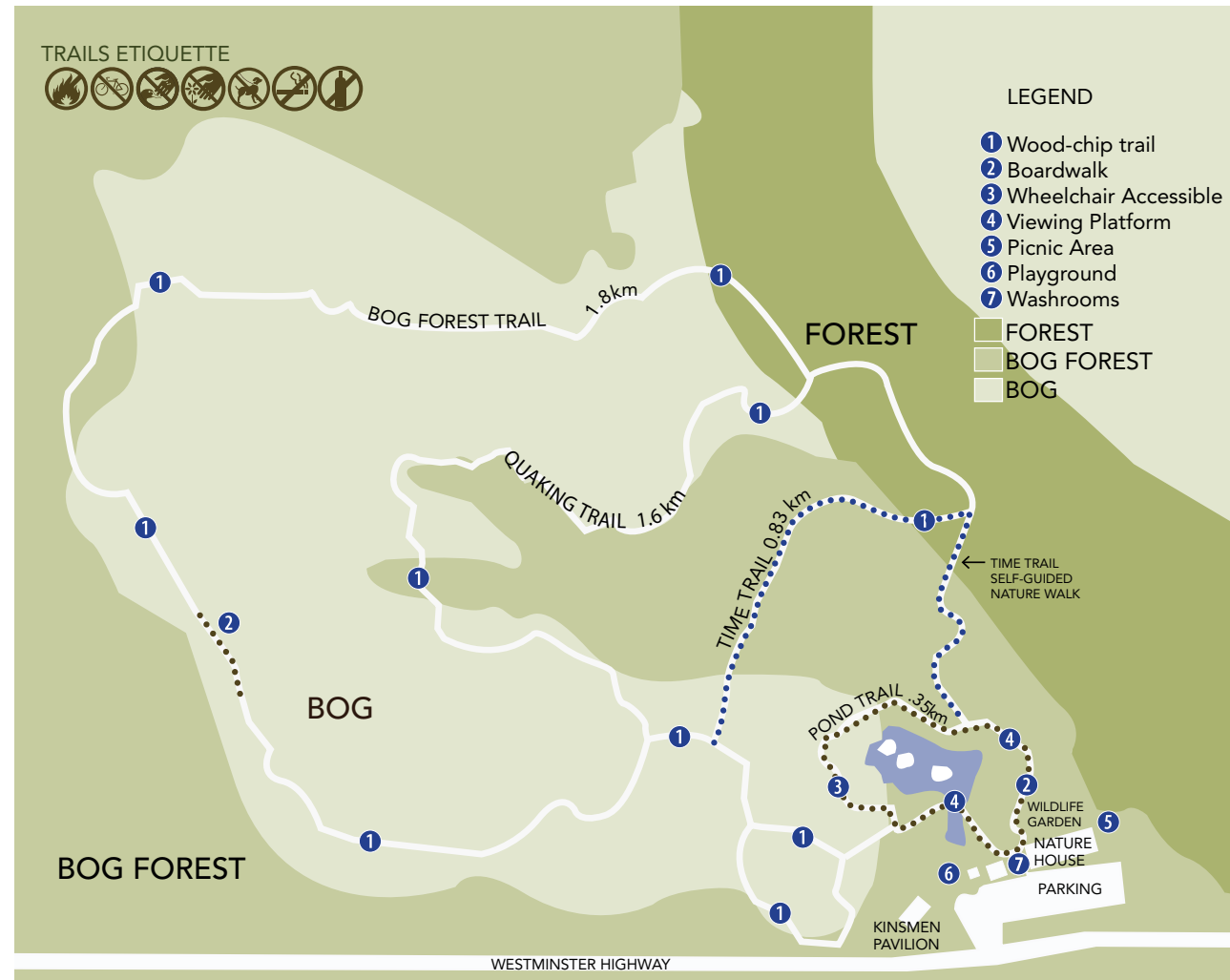


Welcome to the Richmond Nature Park

You are about to take a trip back in time, more than 13,000 years to the end of the Ice Age. You will travel back and see the changing face of nature in Richmond.

This booklet will guide you along an easy walk that takes about 30 minutes. The numbers in this book match the numbers on the stakes along the trail.

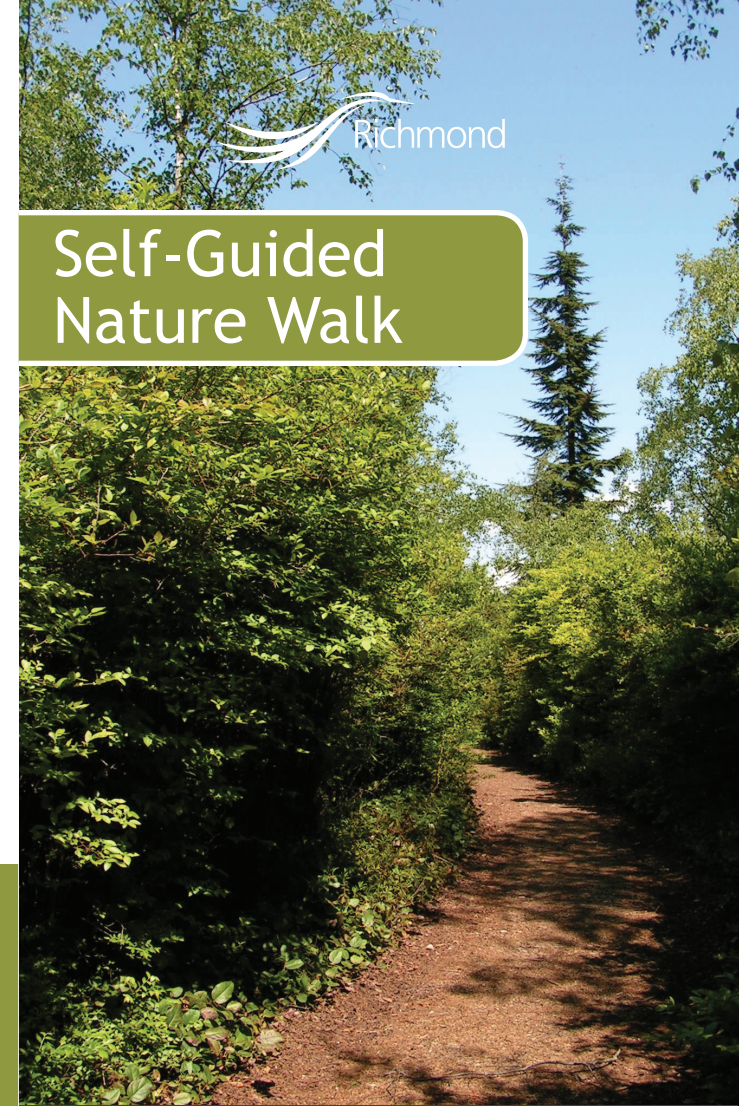
Please stay on the trail and respect the plants and animals that live here. There are litter containers on the trail. Enjoy your walk.



RICHMOND NATURE PARK: CONTEXT MAP



Self-Guided Nature Walk



The Nature Park is open daily from dawn to dusk.

The Nature House is open daily 9:00am-5:00pm
Admission is by donation

For more information about Richmond Nature Park and its programs please call 604-718-6188 or email nature@richmond.ca

Richmond Nature Park
11851 Westminister Highway, Richmond, B.C.
V6X 1B4 Tel: 604-718-6188 Fax: 604-718-6189

To learn more about Richmond's many parks and facilities, please visit the Parks, Trails & Cycling web page at www.richmond.ca

discover Richmond...



1. The Gates of Time

We started our walk on a man-made boardwalk that winds round a pond and through a shady Birch and Pine forest. Squirrels and small mammals ramble through the underbrush. This forest and its inhabitants are very recent residents here.

Now you are stepping into the past through the gates of time!

2. Birth of a Bog

On a clear day, you can see the craggy wall of the Coast Mountains from the park. Out of these mountains came four Ice Ages, with their glaciers gouging out a deep bay where you are now standing. When the ice finally melted 13,000 years ago, this island formed from silt deposited by the Fraser River. Isolated pockets of water were colonised first by salt marsh plants. Next came the grass-like sedges. The last of the water was choked by Sphagnum moss about 3000 years ago, to form the bog you see today.

3. Grandfather Moss

The plant community here, of which Sphagnum is the most important plant, is typical of a 'bog.' A bog is a special place, not a marsh or a swamp. Its wet soil is made of Sphagnum mosses. In some places the moss, or peat, is (6 meters/20 feet) deep. Try bouncing on the bog trail to feel the sponginess of this peat bog.

You could be looking at the oldest plant on earth! The green tip you see may still be attached to the original stem, deep down in the peat, that appeared in this area 3000 years ago.



4. Water Misers

Growing in front of you is Labrador Tea. Turn a leaf over and notice the rolled edges and fuzz. This fuzz holds water like a sponge, and the rolled leaf edges trap water vapour. Beside the Labrador Tea is the poisonous Swamp Laurel. It has thick, waxy leaves. These are all methods of preventing water loss.

Why do these plants want to conserve water when it is so wet here?

The acidic conditions of the bog makes it harder for the roots to absorb water. So, these plants have to save as much as they can!

5. Is the North Pole in Richmond?

During spring and summer, you may find Cloudberry growing around the base of this post. This plant normally lives in the Arctic tundra! Labrador Tea and Swamp Laurel are also from the far north. How did these plants get here?

Sphagnum bogs are like the tundra because they are wet, acidic, and low in nutrients. These plants were pushed ahead as glaciers moved southward from the Arctic during the Ice Age. If the water were drained away, or if the nutrients increased, these plants would disappear.

6. Pioneers

Sometimes the water level is high enough to form a puddle where Sphagnum moss thrives. Sphagnum exchanges hydrogen ions for the minerals it absorbs, making the water of the bog very acidic. How would you like to survive on vinegar? Only the pioneering plants that tolerate wet, acid bogs can live here.

Behind you the Sphagnum has formed hummocks where plants that prefer slightly drier conditions, such as Shore Pine, Labrador Tea and cultivated blueberries have crept in.

7. What's For Dinner?

You have already seen how bog plants conserve water. There are also other tricks in getting food.

The rare Sundew gets its food by capturing insects on sticky leaf tentacles. The Sundew digests them and absorbs the nutrients to obtain nitrogen, a nutrient which is scarce in bogs.

Other bog plants find a fungus which lives together with their roots. In exchange for food, the fungus helps the plant absorb soil water and nutrients. This 'symbiotic' relationship helps plants like Labrador Tea, Swamp Laurel and the berry plants - Cranberry and Blueberry.

Speaking of dinner, do you hear the Rufous Hummingbird buzzing as it visits flowers? Or the Spotted Towhee's 'meow'-like call as it scratches the ground for berries and seeds?



8. Footprints of the Past

Take a moment to look around and listen. You may hear planes coming in to land and the traffic on the highway. This area reflects changes to a naturally stable bog environment due to human activity just outside the Park.

The Richmond Nature Park preserves part of the bog that at one time covered one-third of Richmond's area; A Footprint of the Past.

Look to your right and then left towards the changing face of nature in Richmond.

9. High and Dry

Note the complete change in types of plants on your left and right. To the right, the soil is saturated with water and an abundance of Shore Pine and mosses grow there. In the forest to your left the soil is slightly higher and drier, allowing plants such as Western White Birch and Salal to grow.

Why do you suppose there is such an abrupt difference?

10. Invaders from Outer Space

Can you hear the steady drone of traffic from nearby Highway 99? The construction of this highway drained this part of the bog, allowing plants that enjoy drier, less acidic soil to invade. Can you see some real plant strangers here?

Different birds live here than out in the bog. Can you hear Robins or Chickadees who call their own name: 'chick-a-dee-dee-dee'?

11. Shady Lane

Look up and see how the Birch trees stretch to reach the light. They need carbon dioxide, water, soil nutrients and light to make their food. Below the Birches grow plants that need less light such as Ferns, Salal and Western Hemlock. On the ground you'll find feathery Mosses. In time the young Western Hemlocks will grow taller than the Birches and gradually shade them out of this area.

12. A Condo Complex

Can you imagine the Richmond Nature Park as a condominium complex? The plants form the different 'condominiums' for many creatures to live in and even a 'supermarket' where they can find food!

Some birds live in the shady 'condos' of the forest while others prefer the sunny bog 'suites.' Some prefer tree-top 'penthouse' use ; some ground-level 'floors.'

Squirrels like to run up and down the tree trunk 'elevators.'

Shrews and Mice live in the basement and like to sample seeds and insects.

Moles and Worms bring air to the soil and 'basement.' Raccoons and Garter Snakes prowl the ground while Hawks and Owls spy the unwary from above.

Each nook of forest has its own special creatures. How many can you find?

13. An Older Song

The trees are more scattered here and are mainly Shore Pine. Most of the other plants are of the Heather family and are tolerant of the very wet, acidic conditions. These plants are characteristic of a true bog and show that man has had less effect here than just a short distance away.

Gone is the gentle rustle of the Birches but these plants sing their own song. Can you hear the difference?

14. Back to the Twentieth Century

Now we are winding our way back to modern time. See how dense the tall cultivated blueberries are. They are very successful escapees from nearby fields. The seeds were most likely brought here by birds and animals that ate them.

The twentieth century brought roads and people and ditches to Richmond. These ditches drain the land and change the bog.

15. Pathway to the Future

Today you have walked back in time to follow the footprints of the Ice Age, saved in the Richmond Nature Park, and back again to the sidewalk of the 21st century. What does the future pathway hold?

We hope you have enjoyed your walk. If you do not wish to keep this booklet, please return it to the Nature House for reuse. If you would like to become involved in the Park's future, inquire at the Nature House about joining the Richmond Nature Park Society.

Tax deductible donations for upkeep of this non-profit Park will be gratefully accepted.