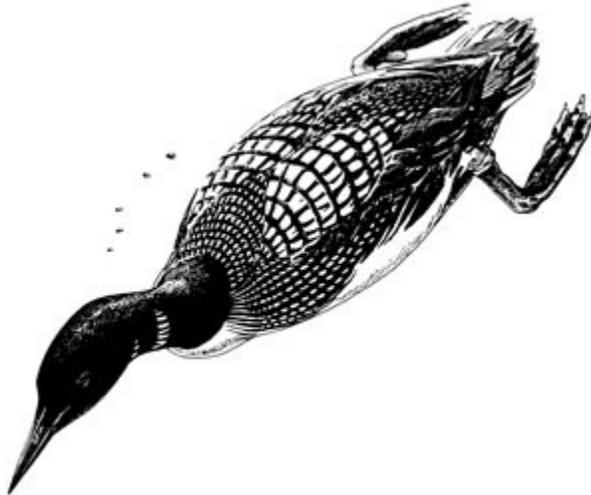


## Western Parks

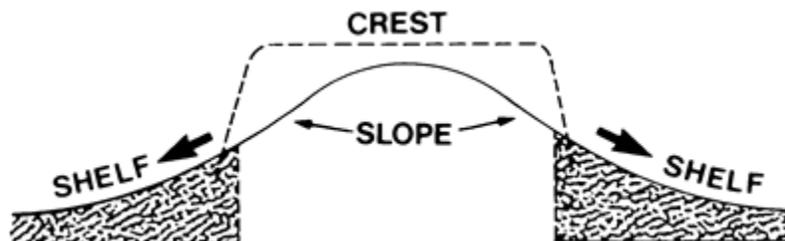
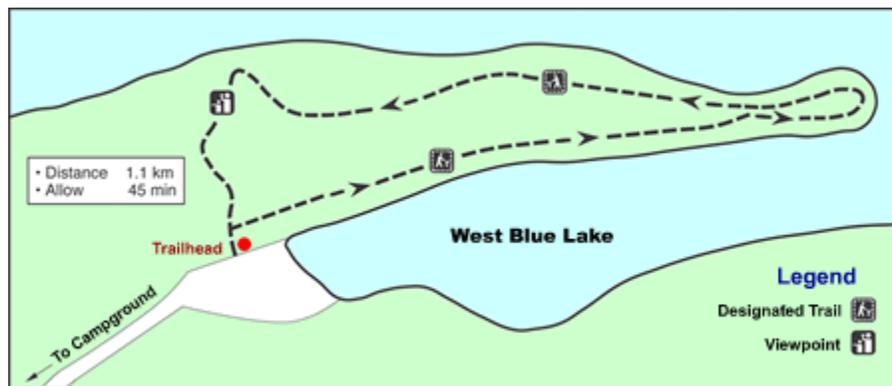
### Shining Stone Self-guiding Trail



#### Introduction

Shining Stone Self-guiding Trail is situated on a peninsula protruding into West Blue Lake. Formed thousands of years ago, it is a remnant of the last great Ice Age. The peninsula consists of a thick layer of glacial debris (boulders, gravel, clay) over a finger-shaped bedrock ridge. At 30 metres higher than West Blue Lake the crest of the peninsula offers an excellent view.

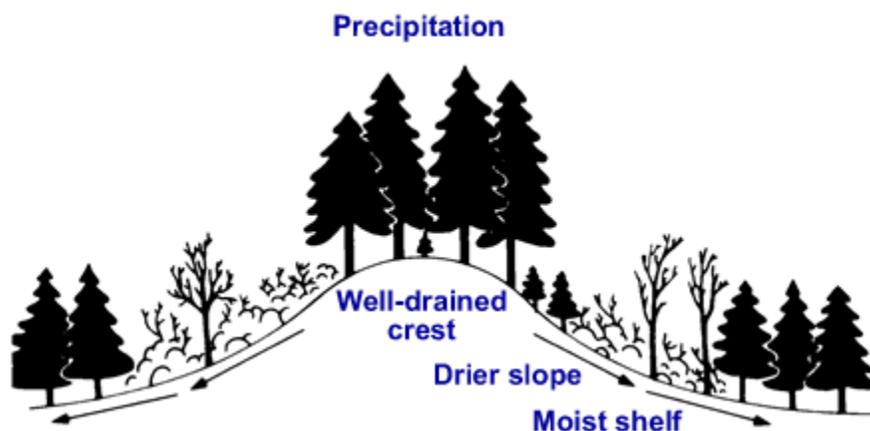
Since glaciation, vegetation has become a very important factor in maintaining the nature of the peninsula and surrounding waters. The brochure and trail will provide some insight into the interdependence which exists between the vegetation and the many features on and around the peninsula.



Crest diagram

The steep-walled peninsula which remained after the last traces of the glacier had melted away, had little or no vegetation. Without an extensive vegetation cover, the soils of the peninsula were exposed to erosion. Spring meltwaters and heavy rains loosened soil particles and washed them down the slope. The erosion of soil from the top and the buildup of soil at the base of the peninsula created three distinct regions; the crest, the slope and the shelf.

Today, distinct zones of vegetation grow on each of the three levels of this peninsula. The vegetation types are dependent on moisture conditions of each level and reduce erosion on the peninsula. Mature white spruce and jack pine anchor the soil of the well-drained crest. The drier slopes are kept intact by dogwood and snowberry, some maturing white spruce, and birch. Younger white spruce, alder and birch thrive on the moist shelf. Although the shelf is the most recently formed level of the three, it is very stable.

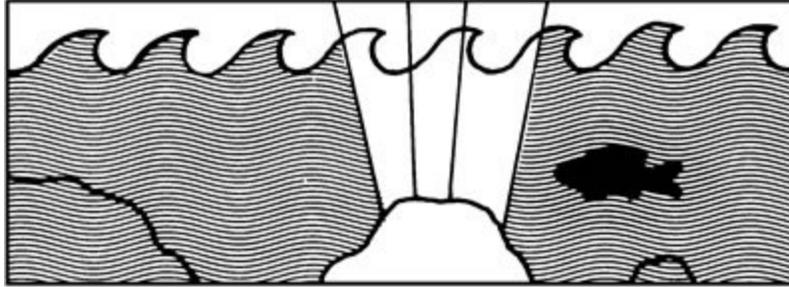


Competition often exists when vegetation grows too close together as it often does on the peninsula. Notice along the slope how some of the birch tree trunks have changed their direction of growth. The trunks are approaching a horizontal direction rather than vertical because of the trees' dependence on the sun for energy. Their new branches reach for the sunlight away from the main trunks and above the branches of other trees.

The higher branches of these white spruce have green healthy needles which act like a canopy to filter out sunlight so that lower branches receive very little light. Without sunlight these branches cannot produce food, therefore, no needles.

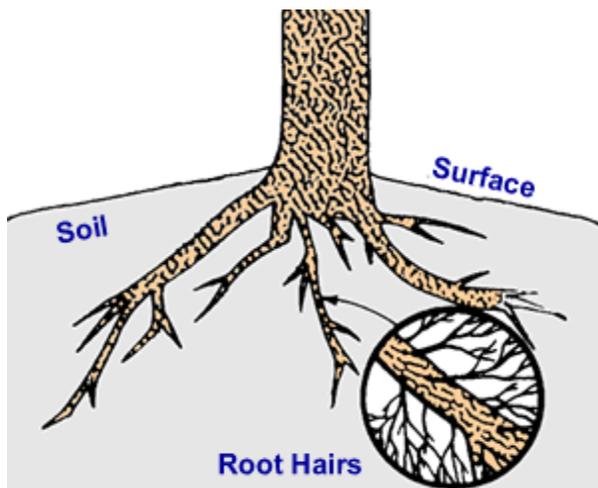
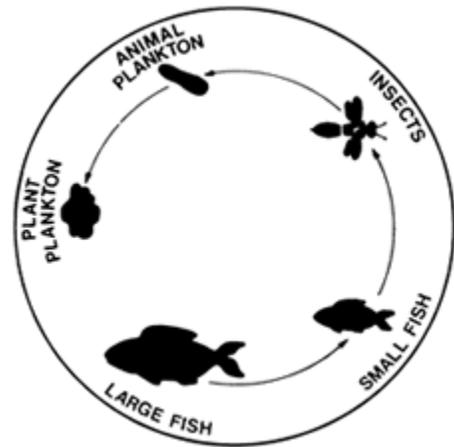
Don't be surprised if a spruce grouse bursts from its hiding spot or a red squirrel begins chattering wildly. Small forest animals and birds have become dependent on this vegetation canopy for shade, protection and food.

The clear waters of West Blue Lake reach a depth of up to 37 metres. The lake has no permanent inlets or outlets and is fed by freshwater springs on the lake bottom. Vegetation on the lakeshore reduces bank erosion thus less soil enters the water. A combination of freshwater springs and reduced bank erosion helps maintain the lake's cold, clear water. Creatures like the lake trout depend on clarity and cool temperatures to survive.



Rocks seen on the lake bottom appear to shimmer and shine through the depths of clear water, hence the name Shining Stone.

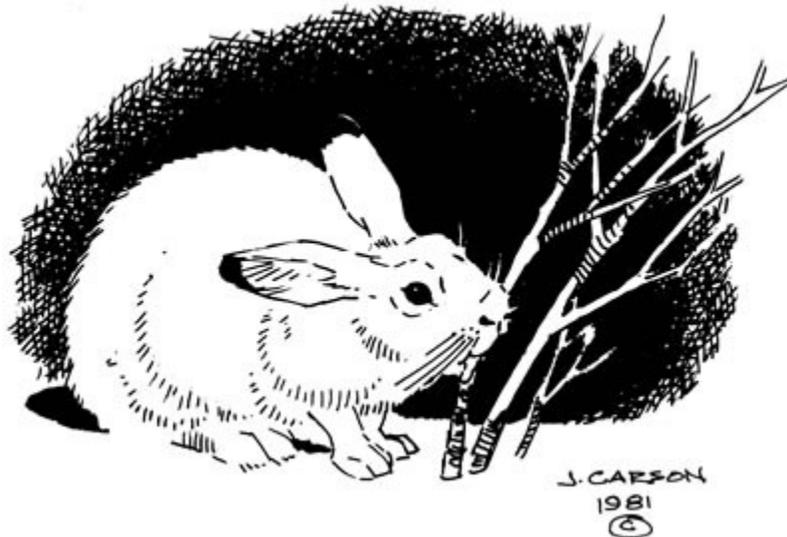
Although not visible to the naked eye, the waters of West Blue Lake contain microscopic vegetation known as plankton. Plankton are important components in the aquatic food web. Animal plankton and insects eat plant plankton which in turn are eaten by small fish. Some of the larger fish that consume the smaller fish either die and provide food for plants (plankton) or are caught by anglers.



Your climb to the crest is aided by a root staircase. These roots anchor the soil of the crest. They also depend on the soil for water and nutrients. After rain falls, the moisture is held between soil particles. The roots of these trees are spread out through the soil close to the surface, enabling them to recover moisture soon after it falls. Moisture and nutrients that provide food for the tree are absorbed through hair-like structures along the roots.

The young trees are balsam fir. The fragile seeds of the fir depend on larger trees, like mature white spruce, for shade while they sprout. The balsam fir grow in the shade of other trees for their first six to eight years. Look around at the fir in more open areas. They are taller because they receive the full effects of the sunlight.

Another distinct area of vegetation on the crest is this small meadow of grasses, snowberries, young aspen and small shrubs. It is a miniature version of numerous prairie upland meadows on Duck Mountain which are important feeding grounds for elk and white-tailed deer. The meadow is being maintained because the surrounding forest is not invading the area successfully. The clue is in the dead shrubs and small aspen, the normal colonizers of such areas. The meadow has become dependent on a small forest creature called the snowshoe hare, whose winter diet consists mainly of young bark. Without bark the trees die and the advance is halted.



Snowshoe Hare

Fallen trees are evidence of the wind's role in changing a forest. A few years ago a wind storm blew over many of the old, weak and poorly anchored trees. This immediately created a window in the forest canopy. Shrubs, such as hazelnut and wild rose, dependent on sunlight for energy were able to grow. These shrubs provide small forest animals and birds with food.

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## Conclusion

Life on the peninsula is a give and take situation. Vegetation has become beneficial to many creatures and features on and around the peninsula. In turn they have provided habitats for vegetation, allowing it to thrive on a small jut of land protruding into West Blue Lake.

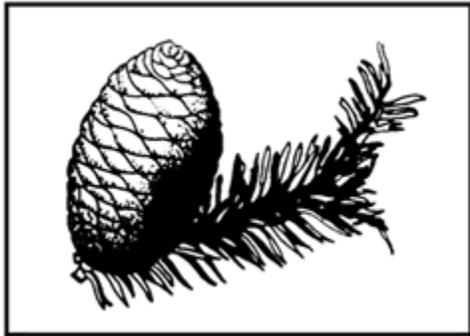
## Vegetation Key



Whitespruce



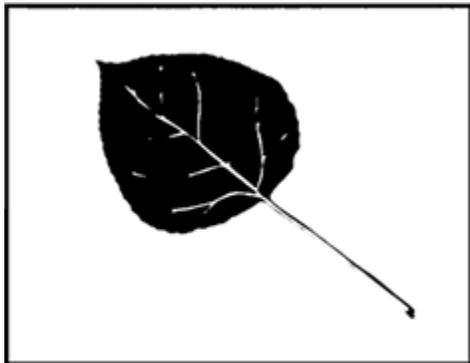
Jack Pine



Balsam Fir



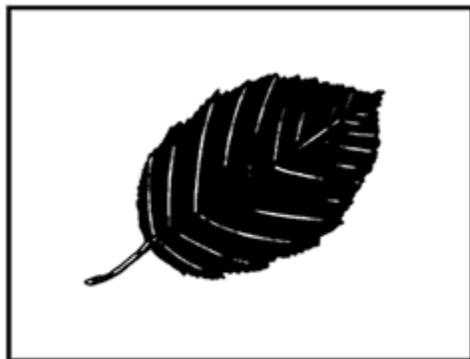
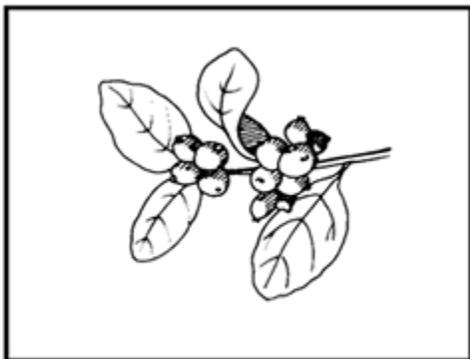
Birch



Aspen



Dogwood



Snowberry

Alder



Wild Rose

Hazel