

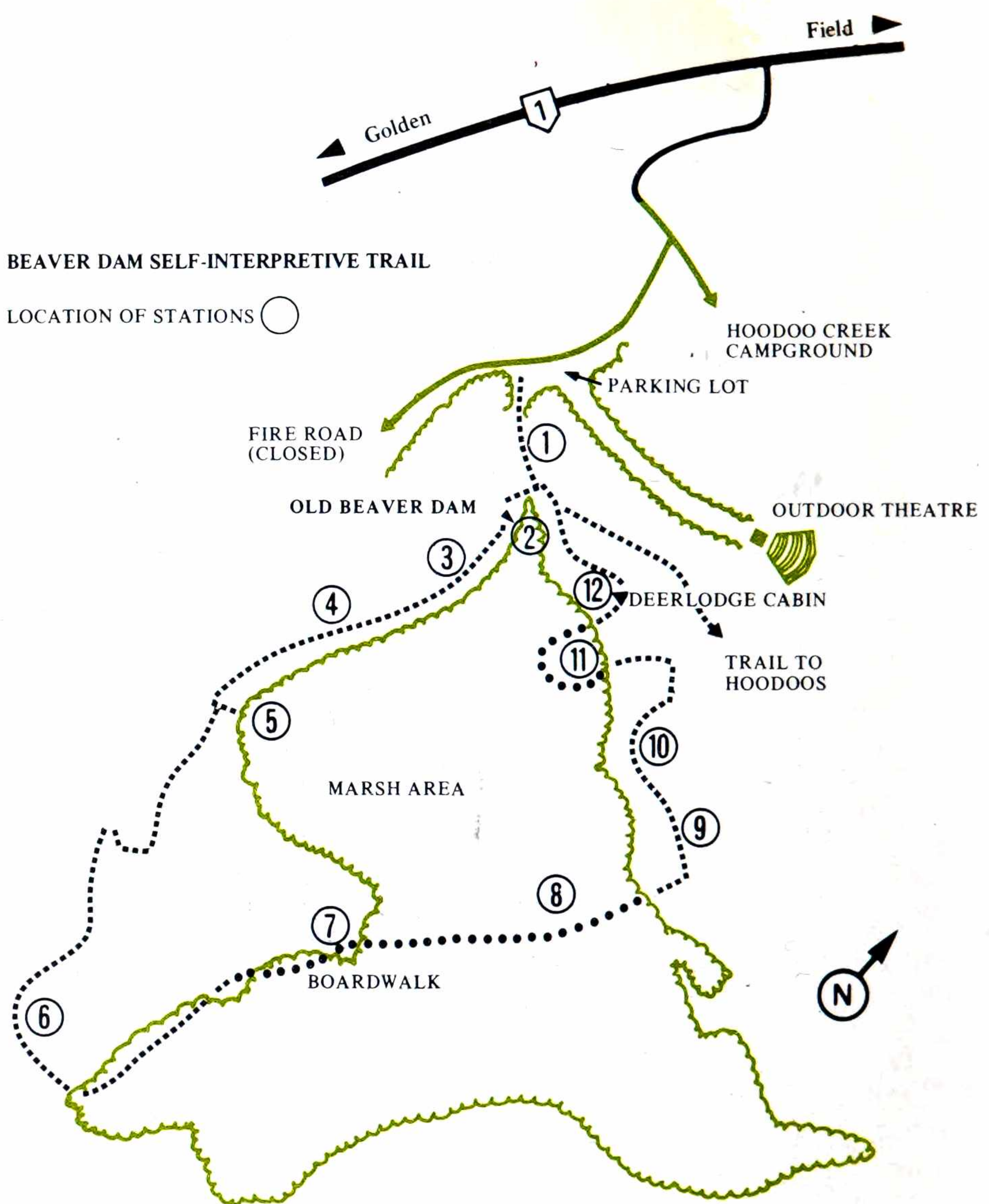
Beaver Dam Trail

Yoho National Park



This trail is approximately one mile long and takes about one hour. It is fairly level and for the most part follows the shoreline of a former beaver pond. In two places it leaves the shoreline to cross part of the marsh by means of a boardwalk.

The numbers in this article correspond to markers along the trail.



As you walk along, listen for the sounds of the marsh and forest; smell the flowers, trees and shrubs; feel the texture of different kinds of bark, leaves and soil; and above all, watch carefully for animals and signs of their presence.

1. The Blowdown Area

This area has been heavily devastated by wind. Numerous factors are responsible for the blowdown, the wind being the ultimate force. The road and parking lot provided a “hole” in the continuous tree cover allowing the wind to reach the side of the trees rather than just the tops. A blowdown such as this often results near a clearing in timbered country, especially if the trees are tall and spindly as these are. Notice some of the recently fallen trees, all of which have shallow root systems. The ground is soft and very moist so the trees do not have to send their roots deep to get the necessary water, and therefore have less resistance against the wind.



The beautiful fern-like moss covering the ground and logs in deep carpets is a result of the moisture and shade. The moss helps break down the fallen trees as part of the cycle of every living thing returning its elements to the soil. Wild rose and dwarf dogwood also provide ground cover here.

2. The Beaver Dam

The old dam is low and in disrepair. Originally it was much higher than it is today but soil erosion and rotting of the branches in it have lowered it considerably. When in use it was probably close to six feet in height. The trees above the dam, in the area formerly occupied by the beaver pond, are fairly large showing that the dam has been breached for many years. Notice that the trees below the dam are larger than those above it indicating that they were growing there when the beaver colony was in existence.



The dam is the basis for much of what we see here today. Initially the dam backed up the water to form a pond or small lake. Water-intolerant plants such as trees were killed. The flow of water was slowed and the silt it carried was deposited on the bottom producing nutrient-rich soil. Emergent vegetation – plants which grow out of the water – flourished in the area. Moose and other animals suited to a marsh habitat followed.

3. Old Footbridge

An old footbridge crosses the stream at this point. It is part of an old pack trail which led to the Columbia Valley via the Harrogate Pass. The nature trail follows a portion of this old path for a short distance.

This is your first view of the marsh; the large wet meadow is all that remains of the beaver pond. Sedges and horsetails are the dominant plants seen from here, choking off the small area of open water.



Looking east at the range of mountains, we find Chancellor Peak immediately in front; the valley to the north is the source of Hoodoo Creek after which the nearby campground is named; and further north lies Mt. Vaux.

4. The Forest

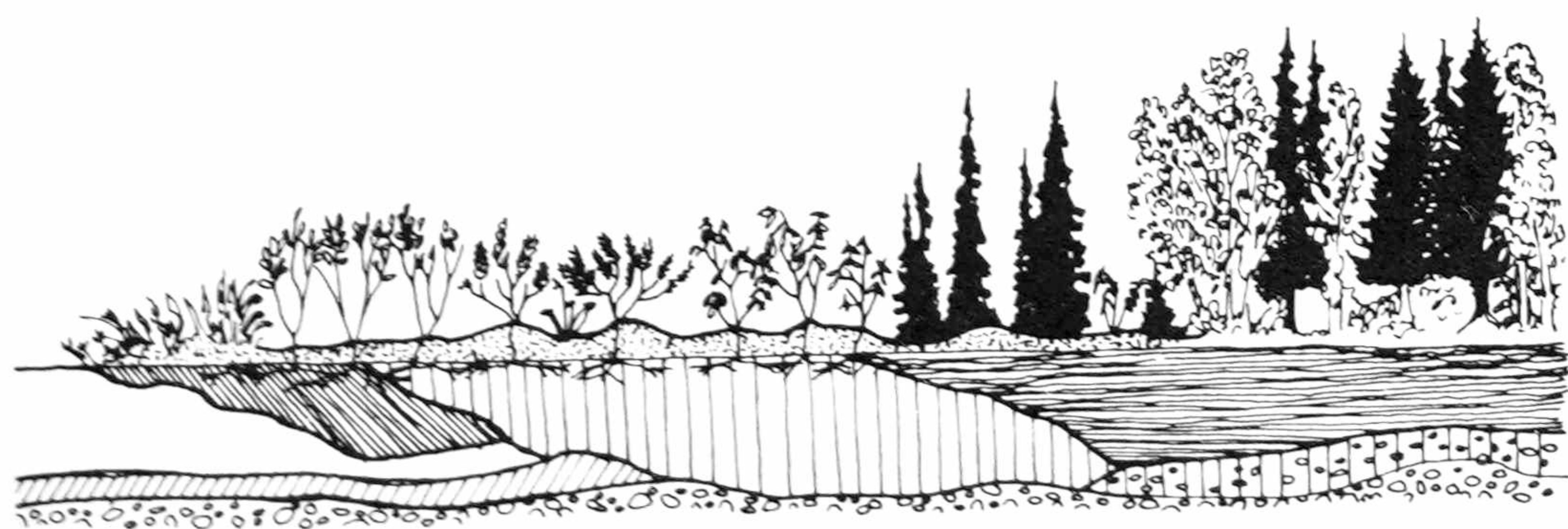
A blackened stump marks a past forest fire in this area. Rain washed the ashes down into the soil where they served as nutrients. Seeds were blown in from nearby green areas and new shoots emerged from deep buried roots. Within a few weeks green vegetation began to re-carpet the blackened ground — first grasses, then wildflowers; lodgepole pine with their bushy branches and later spruce with their darker colour and short, spike-like needles followed.

The spruce tree is best adapted to the climate and soil of this region. A spruce forest is the “climax” or end product of a long succession of events which takes place after a fire. The young can germinate and grow in the shade of old spruce which allows the forest to reproduce itself and carry on, providing the climate remains favourable and the area is not disturbed by man and fire. But our elk and deer herds would not exist if all the park were covered by mature spruce stands and one of the beneficial effects of fire is the creation of a variety of habitat in the forest.

The understory is denser here than in the blowdown area we looked at earlier, possibly an indication of the higher and drier terrain. Buffalo berry, common juniper and wild rose are the commoner shrubs while mosses, lichens, grasses, and plants such as dwarf dogwood cover the forest floor.

5. Bog Succession

Here tree encroachment on the marsh can be seen. This area is transitional between swamp and dry forest. You can see how the trees are invading the meadow, particularly that part of the forest just slightly to your right. The shrubs in this area are those often associated with wet areas, such as willows and bog birch. Each individual plant adds substance to the spongy mass of vegetation allowing further growth to take hold around it.



Gradually the edge of the marsh is filled in and the vegetation advances on the open water. Eventually the area of open water will be choked off and the trees will reclaim the land.

6. Dense Growth of Small Trees

Due to the considerable moisture in the soil it is conceivable that this area is a slightly more advanced stage of bog succession accounting for this thick stand of small trees. The other possibility is that the excessive moisture in the soil is retarding the growth of these trees. Both possibilities may be playing a part.

7. Tree Encroachment

Here, you are in the midst of the tree encroachment mentioned in item number 5. Note the heavy growth of willow and bog birch preceeding the advance on the marsh. The small pockets of water and spongy ground indicate that this could be dangerous ground on which to walk as open water may be under a false surface.



8. Open Meadow

Sphagnum moss is found here, a product of sufficient sunlight and moisture. Grass-like sedges so common in the area are also readily apparent. On the small hummocks where the marsh has filled in above the level of the water, spruce trees have become established, as have willows, bog birch, labrador tea, shrubby cinquefoil, bearberry, creeping juniper and crowberry. All these plants can survive well in highly acidic soil.

9. The Heavy Forest

After leaving the boardwalk the trail enters thick forest. Here the trees are close together and for this reason are tall and slim. Notice the mixture of coniferous trees, primarily lodgepole, and deciduous trees. The

latter, mostly poplar of two species — aspen and balsam — will die out relatively soon leaving the conifers in sole possession of the area.

The well drained soil conditions are apparent as you again emerge from the forest and follow an open area protected from the marsh by a scant row of trees and bushes. Despite the flat terrain and proximity to the pond some of the plants found here are types favouring dry arid areas. Two species of juniper, the common and the creeping variety and wild rose, shrubby cinquefoil, bearberry and buffalo berry are abundant.

10. Hawthorne Bush

The hawthorne is not a common plant in this area, in fact it is rather a rarity. Note the stout thorns and dark purple berries (in season) which are distinguishing features of this bush.



Nearby are some large balsam poplar which usually develop a long cylindrical trunk covered with dark, grey, furrowed bark and have large heart-shaped leaves.

11. Semi-Open Marsh

Very little open water is left in the old beaver pond. Here we find several types of both submergent and emergent water plants. Pond weeds characterize the submerged plants while rushes and sedges, the emergent plants. Grasses have also invaded this portion of the marsh. This area is an ideal spot for frogs.

12. Deerlodge Cabin

This was the first Warden Cabin in Yoho National Park. Built in 1904, its first permanent residents were Park Warden Jock Tocher and his wife, 1920 - 26. It is

situated beside the old Field-Columbia Valley pack trail mentioned earlier. The Shuswap and Kootenay Indians also used this trail and Deerlodge Cabin was a favourite meeting place.



On this hike you have seen a variety of patterns and ways in which these patterns change over the years. Plant communities alter their environment as a result of their own natural processes, making it more suitable for different plant communities. This phenomenon, called succession, is universal and is an integral part of nature's organization. You will now be able to recognize many of the features illustrated here as you drive or hike through other areas of the park.



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