



The humanness of life depends above all on the quality of man's relationship to the rest of creation - to the winds and stars, to the flowers and the beasts, to smiling and weeping humanity.

- Rene Dubos

Healing Springs Nature Trail



Shaftsbury State Park

Vermont Agency of Natural Resources
Department of Forests, Parks and Recreation

1. The Creation of Lake Shaftsbury

In the 1800's, this area was known as Vermont Healing Springs. Mineral water, bottled and sold for its healing properties, bubbled forth from a wet meadow. This meadow was later flooded, creating a pond which powered a lumber mill and transported logs from the surrounding forest. To the left of the spillway, you can see an old stone foundation, the remains of the sawmill.

In time, the mill pond dam gave way and the land returned to meadow. The Lake Shaftsbury Corporation built a larger dam of earth and concrete in 1913, impounding the waters from marshlands and springs to create a sizable lake.



Artist's depiction of the old sawmill. The water spilling over the dam joins with Warm Brook, which eventually flows into the Battenkill River.

2. Cottages in the Pines

Along the shores of the new lake, the Lake Shaftsbury Corporation built the Lake Shaftsbury Inn and Bungalows, "an attractive summer colony for a few people of moderate means." This establishment soon became Camp Avalon, a girl's summer camp.

In the 1920's, the John James family bought the cottages and developed the area into a summer resort and campground. The cottages, rented on a weekly basis, received electricity from the dam and water from a spring house built over the remaining Healing Springs.

The James family planted white pine, Scotch pine and Norway spruce throughout the park area. Some of these evergreens, now tall and majestic, can be seen along the trail.

*L*AKE SHAFTSBURY, spring fed, with a wooded island in the center, lies in the green mountain valley of Southern Vermont a mile from the village of Shaftsbury and midway between Bennington and Manchester. It is 200 miles from New York and the elevation is 850 feet. This beautiful Lake is surrounded by 90 acres of camp ground dotted here and there with cabins and cottages of all sizes. Running water, analyzed by the State Board of Health, runs to cottages that are equipped with bath rooms and fire places.

The cabins will accommodate 4 persons nicely, there being two bed rooms a living room and kitchen in each. Kitchens furnished with oil stove and dishes. The blankets and bed linen to be provided by the occupant or may be rented at the office at a nominal charge.

The cottages will accommodate from six to eight persons and are \$20.00 and \$25.00 per week. The cabins \$15.00 per week.

Cottagers may procure milk, cream, butter and eggs from near by farms, while grocery-men from the nearest town call regularly. Lunches may be procured from a tea room on the premises. The bathing is the best, canoeing is next and last but not least fishing for trout, they're great for breakfast. There is dancing every Thursday evening, also a fine athletic field with ball games once or twice a week. Camp grounds for tourists \$1.00 a day. Make your reservations early.

For further information telephone or write.

JOHN R. JAMES, Shaftsbury, Vt.

A 1920's advertisement for Lake Shaftsbury

Scotch pine seeds were originally brought to the United States for reforestation. The seed source, however, was not carefully selected and the trees grew crooked, unlike their straight trunked European ancestors. These trees are used more as a fast growing cover or a picturesque landscape specimen than as a lumber tree.

White pine covers much of these woods, but is gradually being replaced by hardwoods, especially oaks, in a process called succession. Pines require light and grow best in open fields or clearings; in the forest they become spindly as they reach for the sun.



Scotch pine



white pine

3. Beech-Hemlock Forest

You are now on a small island. Beech and hemlock are the dominant vegetation here. These trees have similar requirements for survival; they like cool, moist environments and grow and reproduce well in the gravel and shade. Both have shallow roots which, along with the deep shade under their branches, makes life hard for other plants. As these trees have traditionally been considered less valuable for lumber, they are often left to grow and attain considerable size.



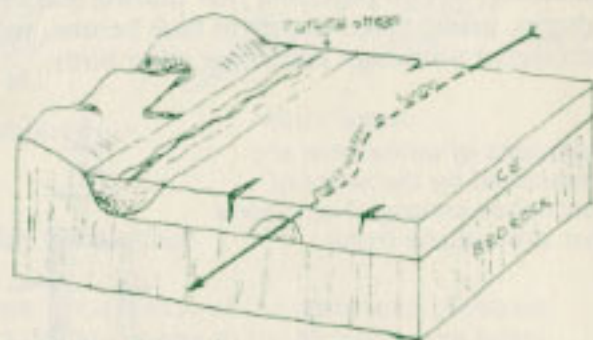
beech nut and twig



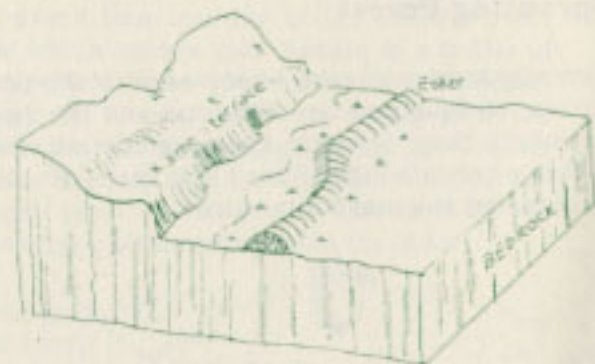
hemlock

4. An Inverted River

Did you notice the distinctive spine-like ridge you've been walking on? This is an esker. Eskers were formed when a meltwater stream flowed through cracks or tunnels in glacial ice. Gravel accumulated haphazardly from the powerful currents. When the ice walls melted, the stream found a lower course, leaving the former channel as an elevated ridge of coarse gravel. Eskers typically are surrounded by swamp-land. Sometime in the last 18,000 years, the esker was breached by natural forces, creating this island. Soon you will cross from this small island onto a peninsula.



esker being formed



esker completed

5. The Stump Line

The mill pond which preceded Lake Shaftsbury was smaller than the present lake. Decaying stumps rising above the water to the right indicate that the old shoreline was approximately at the bridge. For many years these backwaters were enjoyed by girls at Camp Avalon and summer campers. Encroaching cattails, bulrushes, arrowheads, water lilies and trees no longer permit canoeing, but do provide a rich nesting and feeding area for ducks, geese, green and great blue herons, redwing blackbirds, cedar waxwings and many other birds.



cedar waxwing

The remains of white pine are distinguished by the scars of old branches arranged in whorls of four around the trunk.



6. A Sprouting Forest

You are now in an oak forest, a hardwood forest type more characteristic of Southern New England and the Appalachian mountains than Vermont. Oaks are tolerant of shade and can thrive beneath other trees. Two types of oaks are common here, red oak and white oak.



red oak

white oak

Since oaks prefer drier soils, they are usually found on the middle or tops of slopes. These soils are acidic, because oak leaves contain tannic acid. Plants growing under oaks, such as blueberry, witch hazel and wintergreen, are tolerant of high acidity.

Oaks are noted for their vigorous sprouting ability. You will see many examples of oaks whose branches have sprouted from stumps, forming a rounded saddle. Such trees are called "coppice trees" and their abundance has given the nickname "sprout hardwoods region" to areas where oak forest occurs.



blueberry

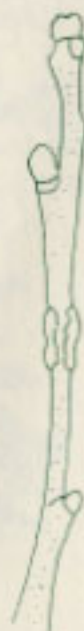
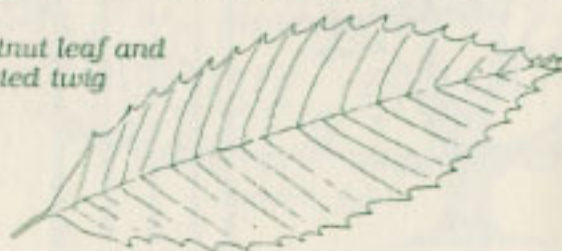
witch hazel

wintergreen

7. The Chestnut

Here are sprouts of the American chestnut. Once a dominant tree in the Northeastern forest, chestnut neared extinction when the chestnut blight swept this country in the 1920's. The fungus which causes this disease is a native of Asia; chestnuts there are resistant to the disease. Although the chestnut sprouts readily from old stumps, the young saplings rarely grow taller than 12 to 14 feet. The bark begins to rupture at that age, opening the tree to infection by the fungus which ultimately girdles the stem.

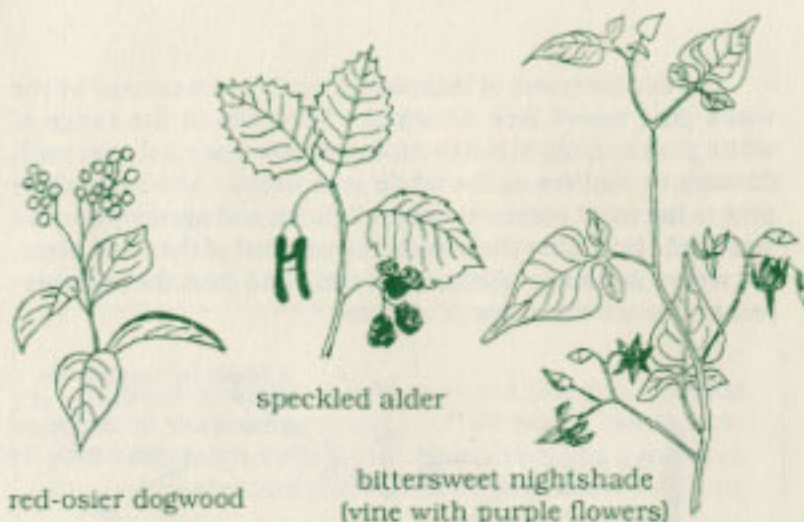
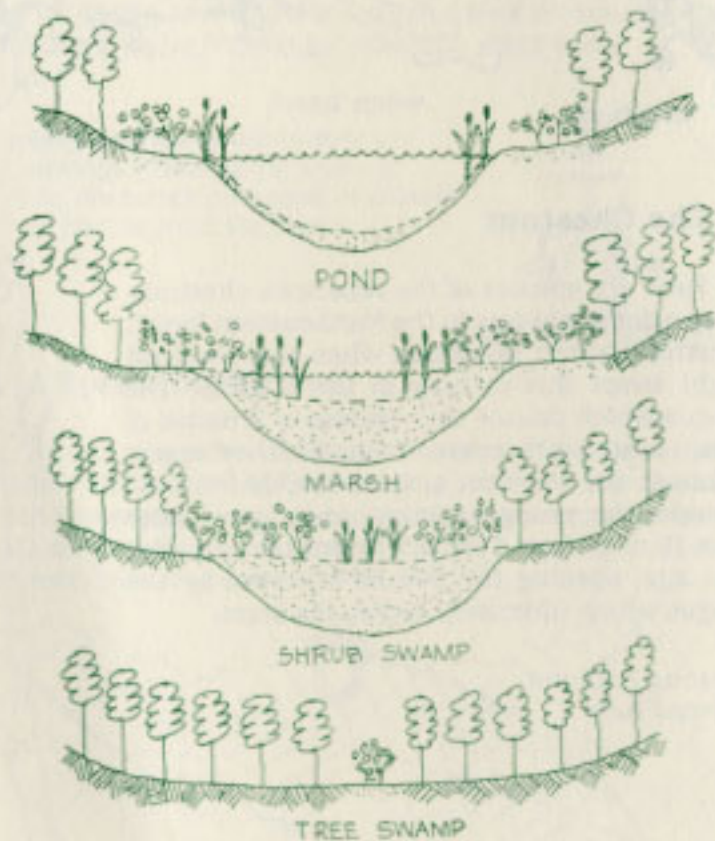
chestnut leaf and infected twig



8. Changing Wetlands

You have just crossed Warm Brook, which feeds Lake Shaftsbury. This ever-changing wetland was created by natural springs, spring flooding and industrious beavers.

If you look to the right of the boardwalk, you will see the "filling in" process at work. Slightly elevated mounds, or hummocks, of older organic matter form a drier base where shrubs and even trees are beginning to grow. An undisturbed wetland may begin as a pond, and slowly fill with sediments to support a marsh, then a shrub swamp or tree swamp, then ultimately dry land. All of these stages can be observed here. Beaver activity, however, can reverse the filling in process by raising the water table, killing trees, and encouraging the growth of wetland vegetation such as cattails and willows.



red-osier dogwood

speckled alder

bittersweet nightshade
(vine with purple flowers)

The cattail marshes bordering the open water of the lake are backed by swamp shrubs such as alder and dogwood.

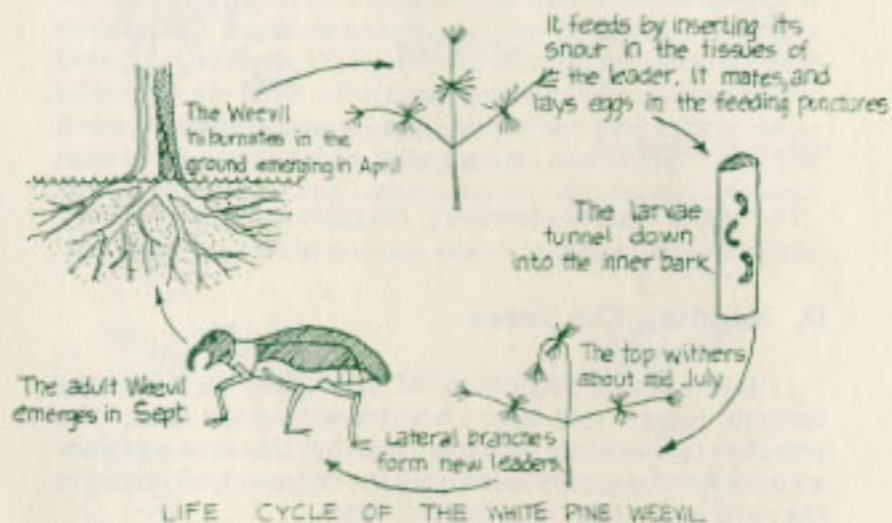
9. Reading the Trees

History can be reconstructed from clues left behind by farmers, loggers and others who have used the land. The presence of this white pine indicates that this area was once an open field, uninterrupted until the railroad bed, visible to the right of the trail, was built in 1856.

Trees grown in the forest are relatively straight, long-trunked and tall, as they reach upward toward sunlight. Those grown in the open spread their branches outward, like this white pine. Such a tree is commonly called a wolf tree or cabbage tree.



The double trunk of this pine probably was caused by the white pine weevil (see drawing). Throughout the range of white pine in eastern North America, few insects do as much damage to conifers as the white pine weevil. Although white pine is the most common host, all pines and spruces may be attacked. By killing the leader, the top part of the main stem, the weevil seriously affects tree form, and thus the commercial and aesthetic value of the tree.



10. Traces of the Past

As you leave the forest and return to the lawns of the park, you complete the circle of the Healing Springs Trail. The State of Vermont purchased 100 acres of lake and forestland in 1974 to create Shaftsbury State Park and preserve the unique character of this beautiful area. Throughout the grounds there are many other places of interest. One is the site of the old ice house, located where the picnic pavilion is now. Like many Vermont lakes and ponds, Lake Shaftsbury was used as a source of ice which was stored in sawdust then sold to tourists in the summer. Chimneys, cellar holes, and even faint traces of the old Healing Springs themselves can still be found, reminders of the past in this peaceful park.

Unless you wish to keep a copy of this guide, please return it to the ranger station. We would like to hear your comments on the trail. If you have any questions, the park ranger and staff would be glad to answer them.

Acknowledgements and references: much of the information in this brochure came from walks and talks with Robert Matteson of Shaftsbury, the Shaftsbury Historical Society, and members of the Bennington Bird Club. Other invaluable references were Neil Jorgensen's books, a *Sierra Club Naturalists Guide: Southern New England*, and *A Guide to New England's Landscape*.

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