

TRAIL GUIDE



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2nd Revision 10/98
1st Revision 9/87
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Credits:
W.G. Gove for use of information from "The Settlement of Little River"
Youth Conservation Corps of Stowe for initial trail construction

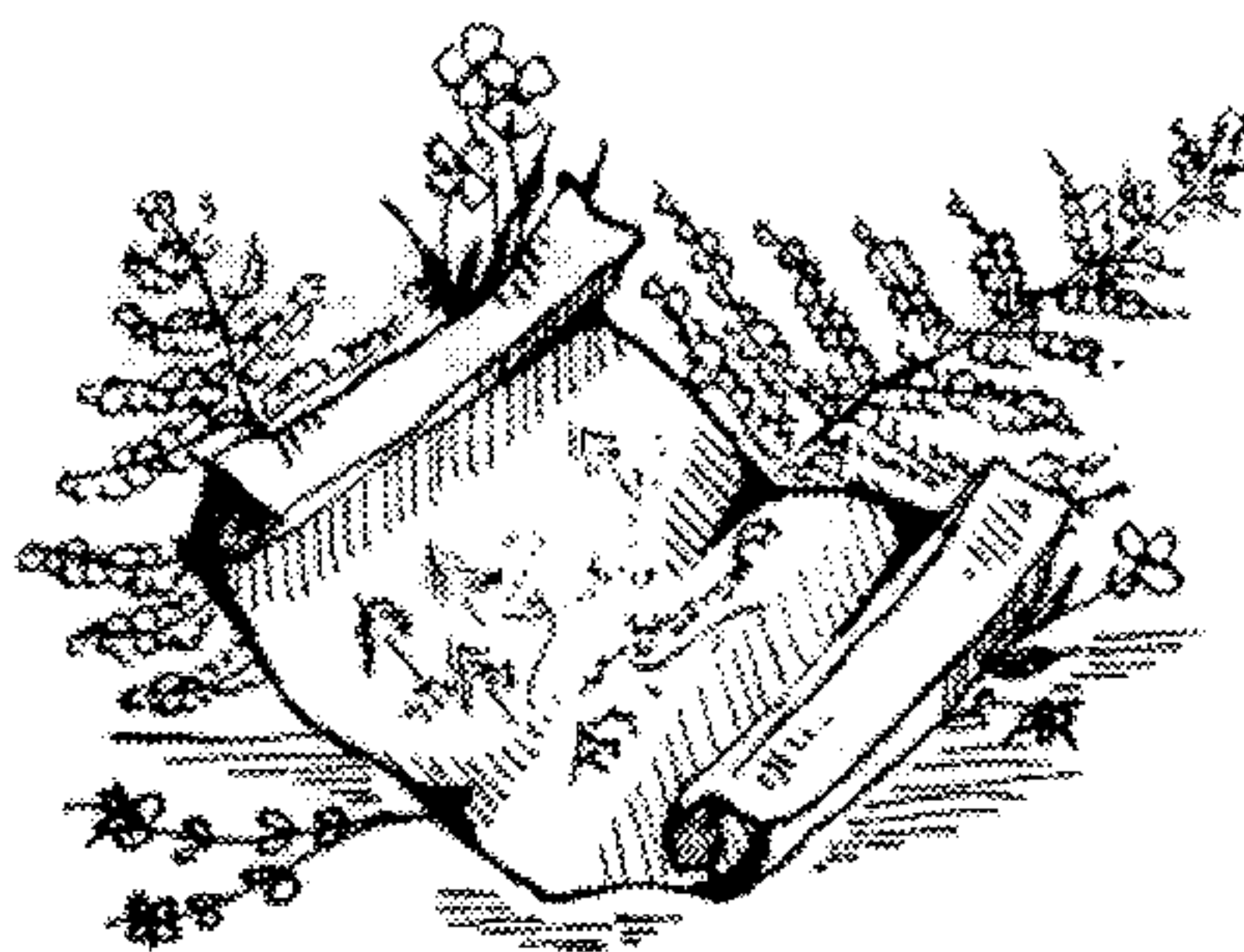
NATURE TRAIL at

LITTLE RIVER STATE PARK

WELCOME TO THE NATURE TRAIL AT LITTLE RIVER SP



This trail highlights Little River's cultural history, geology, and natural history. As you follow the trail, watch for numbered stops that correspond to the numbers in this booklet. It takes about 45 minutes to complete the loop trail. A map of the trail is provided in the center of this booklet for your convenience. Please leave everything, including plants, flowers, and historical artifacts as they are for others to enjoy. Collecting these items is prohibited on state lands.



1

STONE WALLS AND APPLE TREES

In the early 1800s, the Little River, Stevenson Brook, and Cotton Brook valleys were cleared of trees and settled by hard-working pioneers. These farmers and their descendants made a living in this area until the 1920s, despite the challenges they faced from Vermont's rugged terrain and harsh climate. This was once the site of the Amos Chase Homestead, a 30 acre farm that was rented out to tenant farmers for much of its existence. Amos Chase was a Civil War veteran who lost an arm in the war, yet remained determined to run his farm. He cut hay with a scythe that was equipped with a shoulder strap. Evidence of other early farms can be seen throughout the area, including old stone walls, apple trees, and honeysuckle. How many of these clues to the past do you see at the Amos Chase Homestead?



day lily

2

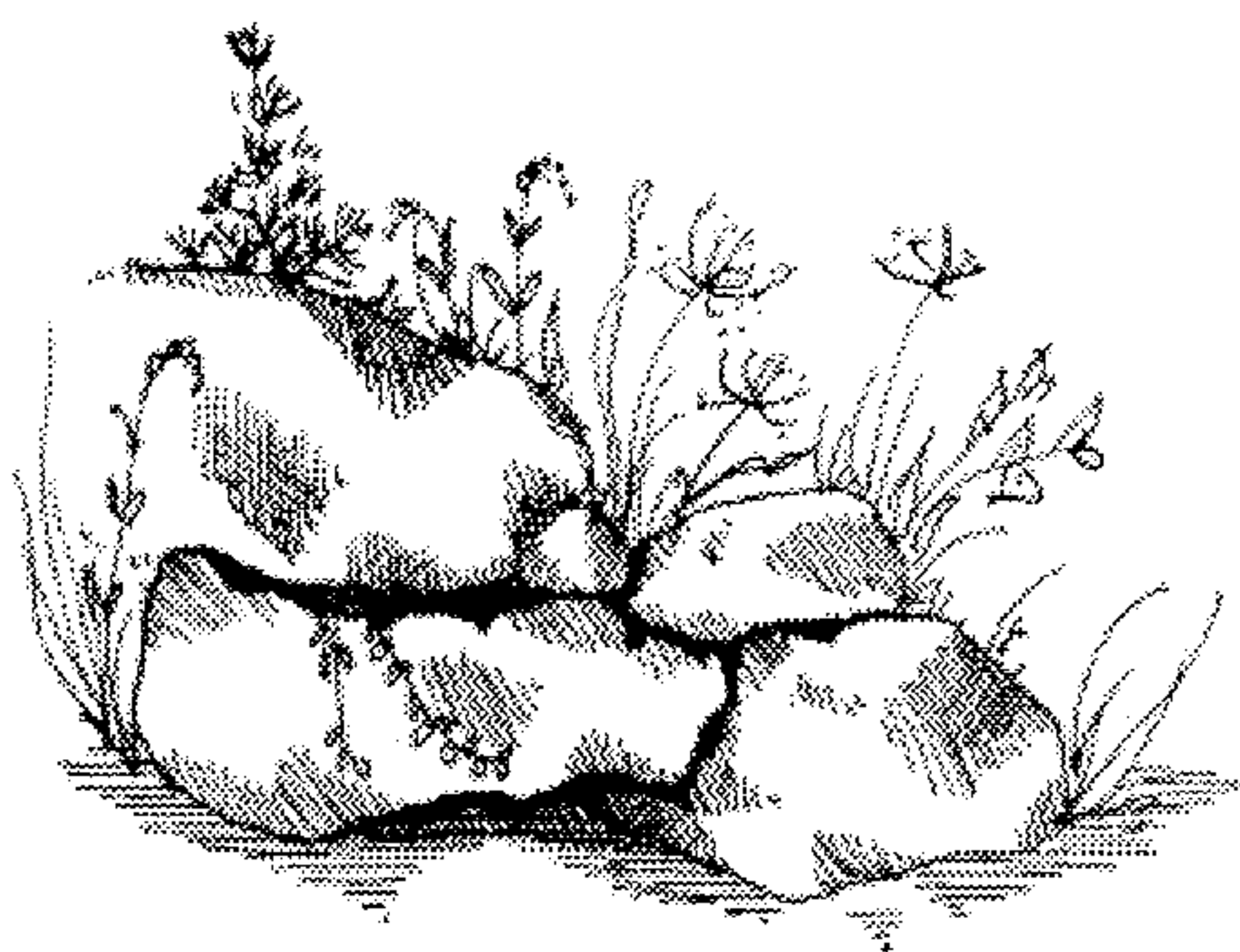
THE POWER OF STEVENSON BROOK

Stevenson Brook runs down the eastern slope of Ricker Mountain, draining away thousands of gallons of snowmelt in the springtime. The brook's channel is full to the top of its banks, or even higher with all the extra water. With the added flow comes extra energy that erodes back the banks and carries away all but the largest boulders downstream. The trail at this spot has had to be moved back several times because the brook keeps widening its channel. Notice the exposed tree roots that bind together the banks.

3

ROUND STONES AND LONG AGO ICE

Most of the rocks seen in the bed of Stevenson Brook have been worn smooth by tumbling action of fast-moving water. These pebble to boulder sized stones have been exposed to high-energy waters several times during geologic history. They were deposited in this location during the retreat of the most recent period of glaciation. When the Laurentian ice sheet was melting away from this area about 6,000 years ago, it dropped the debris that it carried from points farther north. These boulders were deposited and sorted by glacial melt streams. Now, the rocks are being sorted again by Stevenson Brook. High energy springtime flows carry away the fine sediments, pebbles and small boulders, leaving the largest ones that are too heavy for the waters to move. Many of the boulders here are granites, composed chiefly of quartzite, giving them a light appearance; or schists, owing their pale green to gray color to the mineral chlorite.

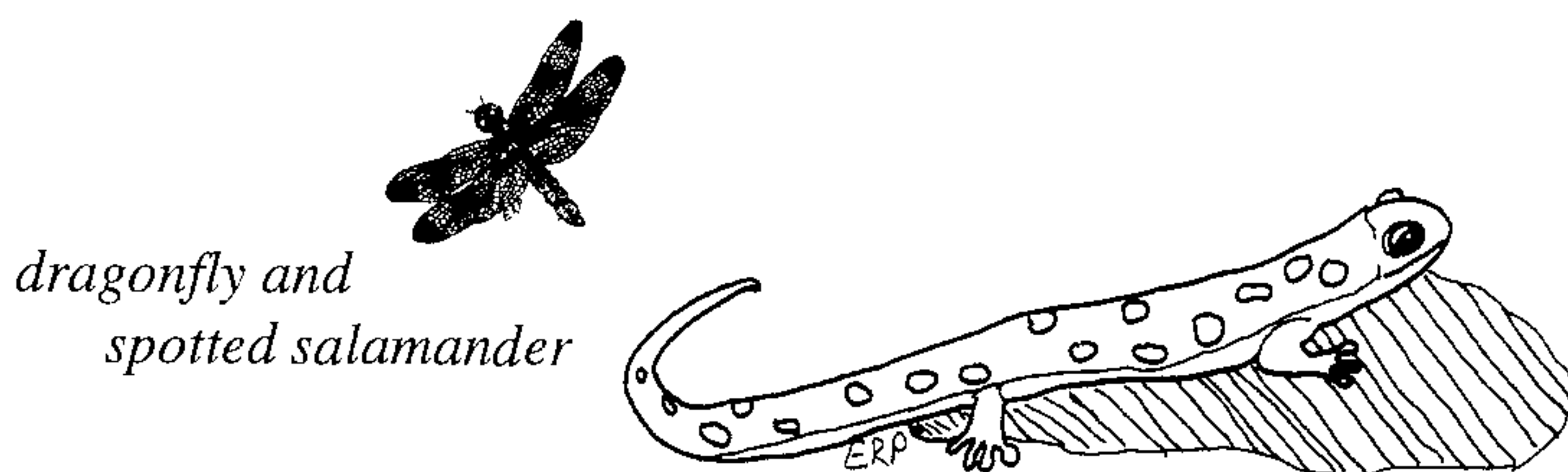


4

STREAM HABITATS

The pool before you is just one of a variety of habitats that Stevenson Brook provides for aquatic life. Deep pools with sandy beds, and undercut stream banks are a favorite of brook trout because they offer many places to hide from predators and catch prey without being detected. Pools are often formed by trees falling across the river, which catch debris washing downstream, forming a natural dam. These spots with relatively more quiet waters are also good places to see aquatic insects like water striders skating along the water surface searching for other insects to eat. If you turn over a rock near the waterline, you may see tiny insect larvae attached to the rock.

Pools provide drinking spots for animals like deer and raccoons, and habitat for amphibians such as frogs and salamanders, which have juvenile stages that require fresh water for development. Even tiny but voracious black flies need fresh running water for larval stages to survive.



5

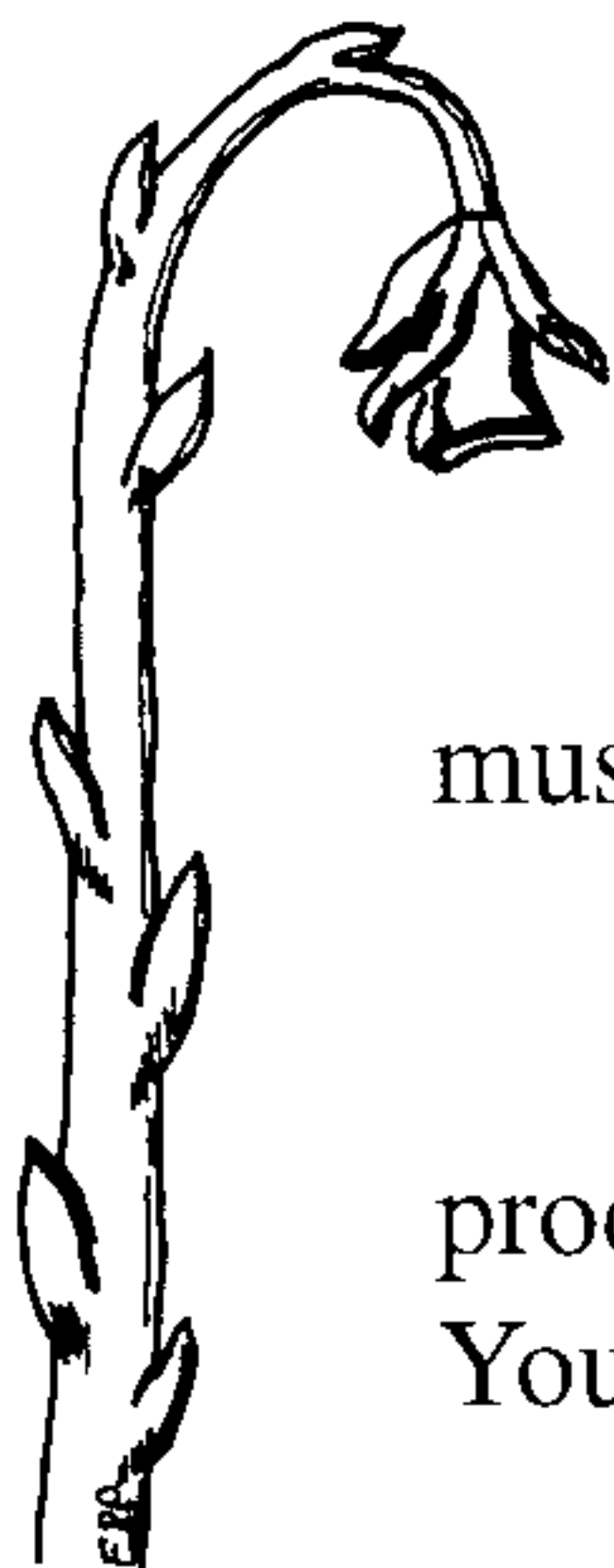
REACHING BASE LEVEL

As water flows downhill, it follows the path of least resistance, trying to get to base level, where it can't flow downhill any further. Ideally the ultimate base level is sea level. For Stevenson Brook, its base level is the Waterbury Reservoir. Water flowing down Stevenson Brook erodes the stream channel, trying to lower the stream's base level. At this site, three step-like flat terraces are visible, each one representing the brook's attempts at reaching base level. The stream meandered back and forth, creating the first terrace. Eventually it cut down deeper and created the second, narrower terrace. The lowest and narrowest terrace is the most recent, where the stream is today.

6

LEAVES OF WHITE AND GREEN

In July and August, you may notice a ghostly white plant growing in clusters about 4 inches high. This unique plant curves around at the top, looking similar to a pipe, and is thus called Indian Pipe. Even though this plant has no chlorophyll and derives part of its food from decaying material in the soil (as a mushroom does), it is still a true flowering plant.



indian pipe

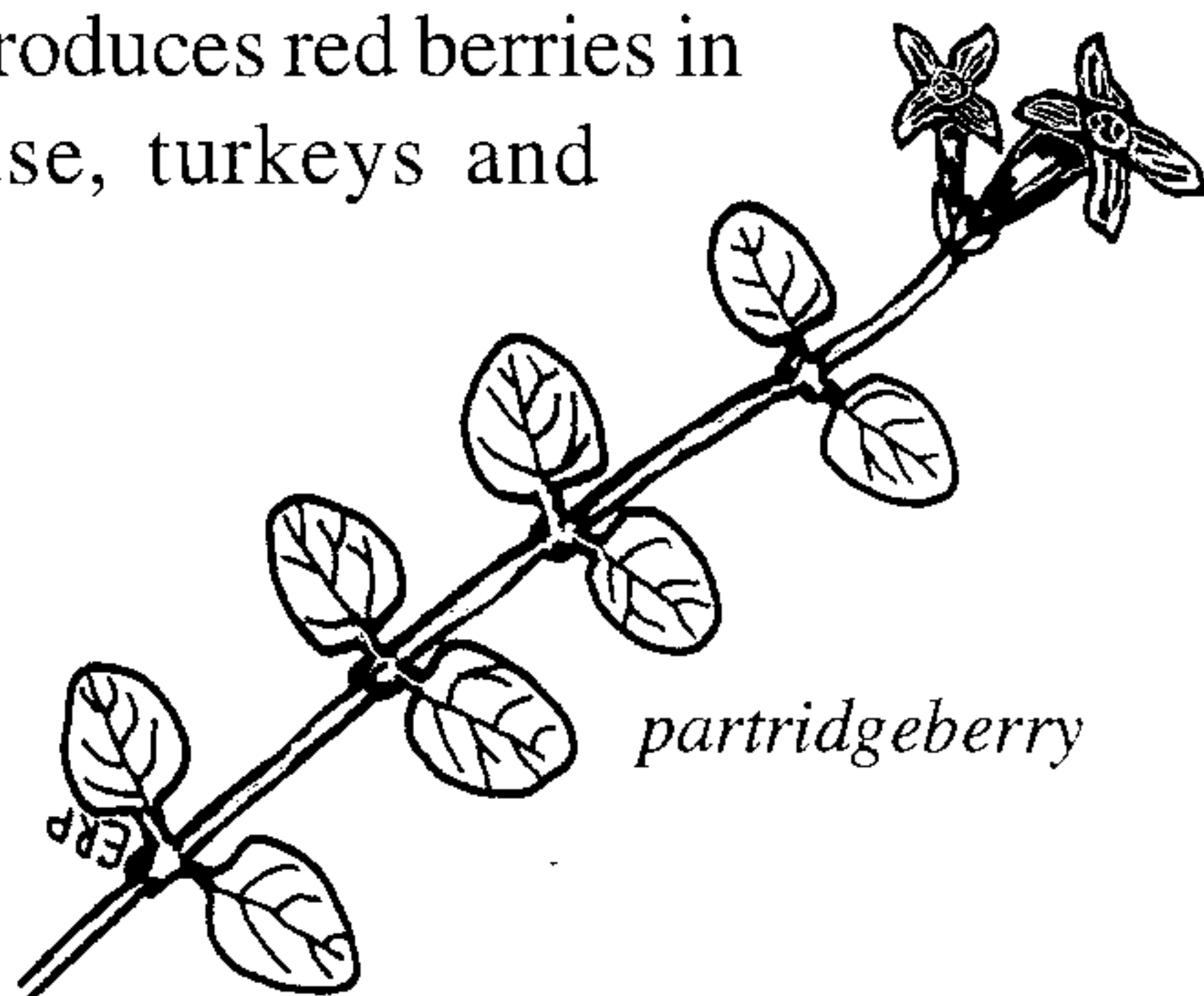
Ferns are not true flowering plants; they don't produce seeds. They produce spores instead. You can often see spore cases on the undersides of the leaf blades of some ferns like woodferns; they are usually tan or dark brown spots called fruit dots.

Some ferns are evergreen. Christmas fern got its name because of this trait; you can dig through deep snow in the middle of winter to uncover its dark leathery green leaf blades. Over 50 types of ferns occur statewide*.



*marginal
woodfern*

Partridgeberry, a small ground-covering vine, grows at this site. The small woody plant has round or spade-shaped dark green leaves and produces red berries in the fall, which attract grouse, turkeys and other wildlife.



partridgeberry

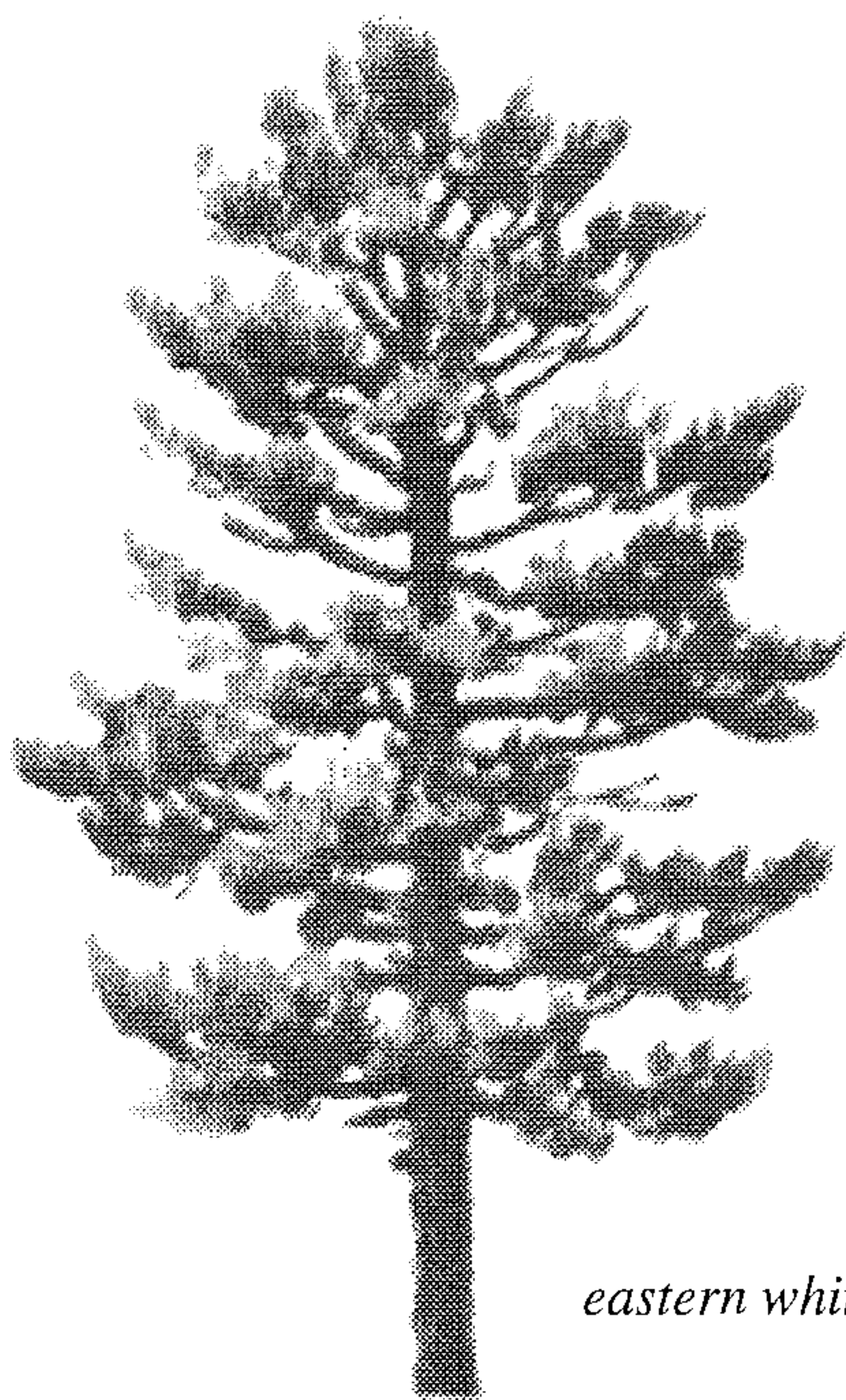
*for more information on Ferns in Vermont, pick up a copy of **“Common Ferns of Vermont”** published by the Dept. of Forests, Parks & Recreation.

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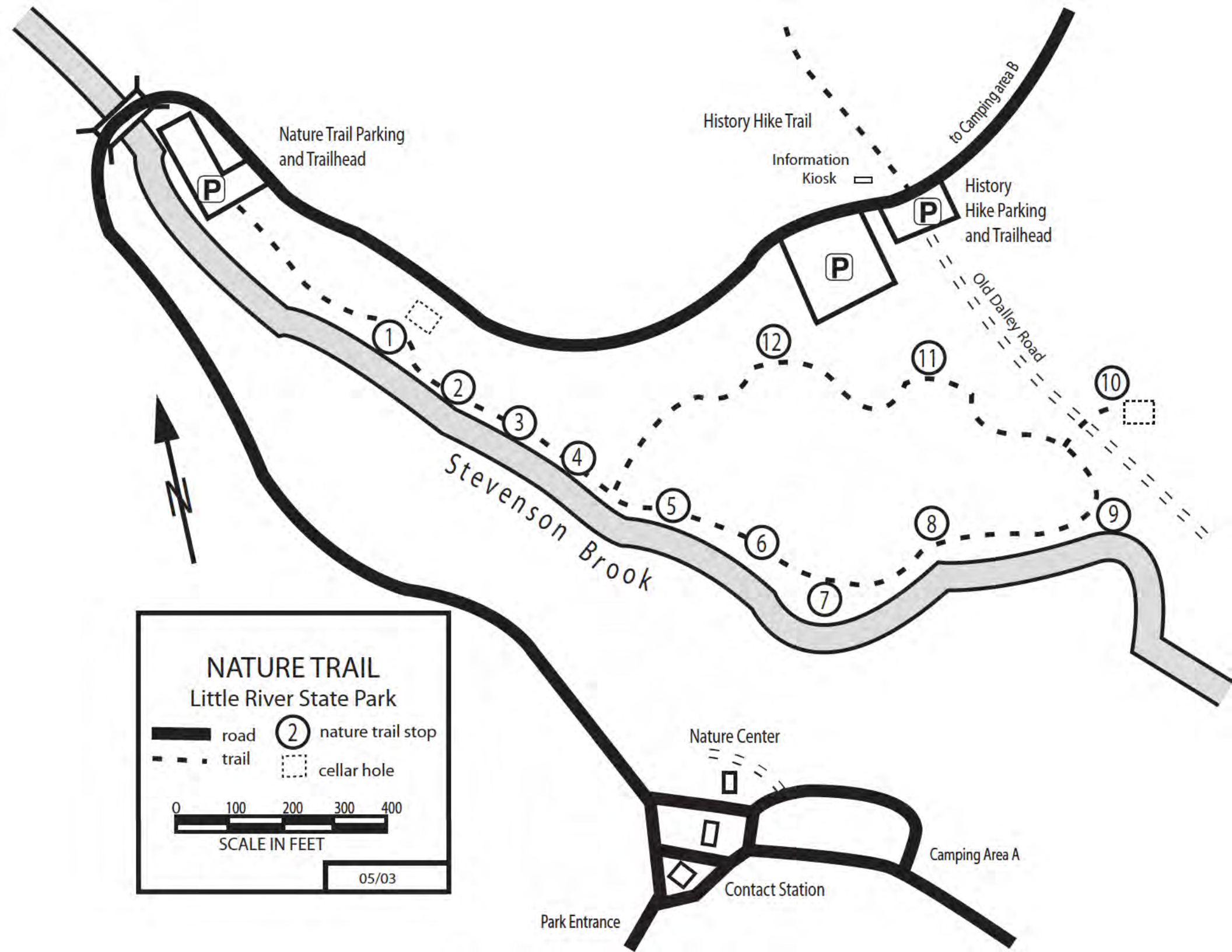
HISTORY FROM THE TREES

Many of the very large trees at this site are eastern white pines. Their presence often indicates that the land was open farmland before the pines started to grow. These trees all have straight trunks which means they were once part of a pure stand of pine, a condition that allowed very little room or light for the growth of horizontal branches. Because of the lack of branches, they are desirable as timber. Eastern white pine can't tolerate wet soils; even though these trees are growing next to a stream, notice that they are on an elevated terrace with their roots in drier soil. The age of these trees suggest that they started filling in an abandoned pasture in the early days of the 20th century. Eastern white pine has soft wood with a clear grain and is used in making furniture and building materials. It is the largest native conifer in the northeast United States.

Pine needles decaying on the forest floor make the soil acidic. Note the lack of understory plants at this site, compared to the hardwoods just a few hundred feet away.



eastern white pine



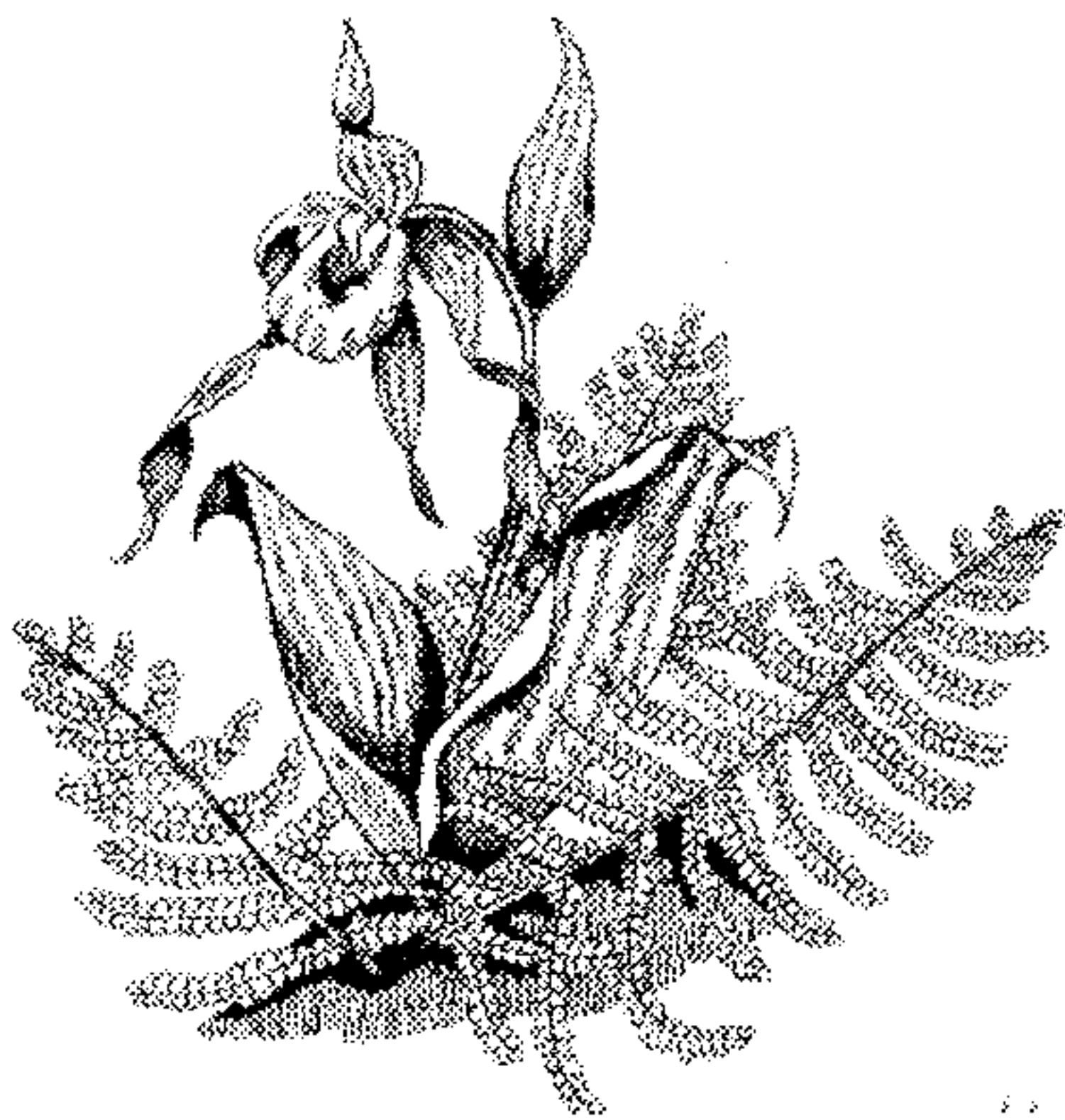
8

ABANDONED HILL COMMUNITIES

Evidence of past farming practices can be obtained by looking at the forest's present species composition, especially at this location. Eastern white pine, white birch, and trembling aspen are often the first trees to colonize an old field. More direct clues of farming, such as stone walls and apple trees can also be found. The field once enclosed by the stone wall here was part of the Dalley Farm. When settlers cleared fields for use as pasture or cropland, they used the stones they removed to build fences for marking boundaries and to keep their animals from escaping.

Downstream a short distance was the site of Ayers Sawmill, one of the first cross-cut mills in the area. This water-powered "up-and-down" saw operated from the early 1800s to the early 1900s, doing custom sawing for local residents as well as cutting piano stock for the Estey Organ Company.

The largest tree closest to this post is an American basswood. It was used extensively by settlers for making household utensils because its straight grained soft wood made it very easy to work. Today, basswood is still a favorite for wood carvers. Honey produced by bees pollinating basswood flowers is prized for its exceptional flavor.



Tracy Scott



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A BEAVER OUTPOST

Look carefully at some of the stumps at this site. Can you see that they are pointed, and have tooth marks? This is a sure sign of past beaver activity. The wet area covered by ferns just down the bank may have been a beaver pond. A favorite tree of beavers is aspen, although they also use alder, birch, maple, and ash. The inner bark, or cambium, is eaten. Beavers store a winter supply of branches stuck in the mud under water for use when the water is iced over. Using just its teeth, a beaver can cut down a 5 inch diameter tree in 15 minutes. Beaver ponds provide habitat for many forms of plants and animals, and sometimes aid in flood control by storing runoff water.

At the next signpost, follow the trail straight to the cellarhole.

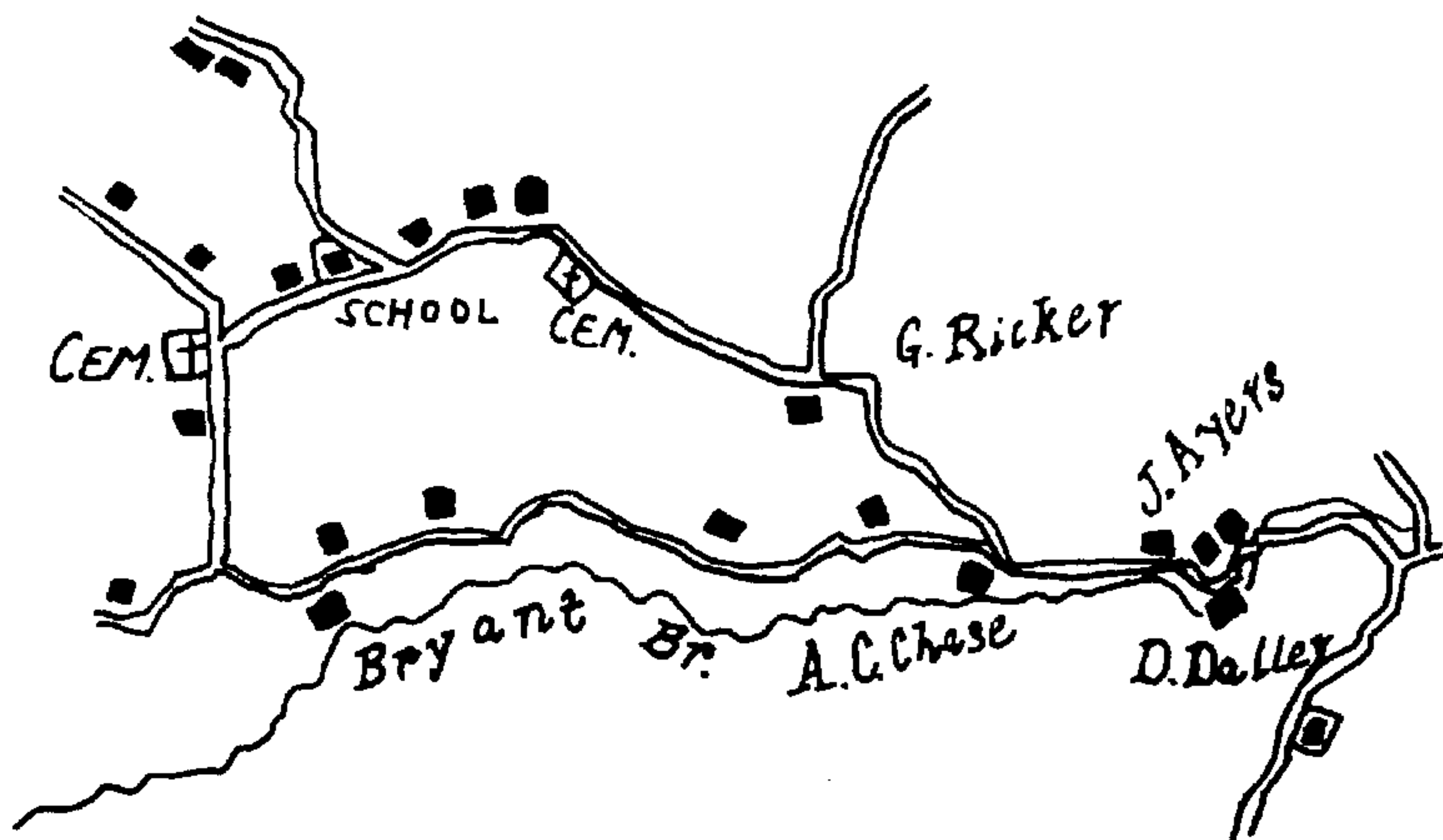
10

ALONG OLD TOWN ROADS

This cellar hole marks the site of the Dalley Farm house. Dan Dalley was a Civil War veteran, surviving 16 battles and one capture. His military pension of \$12.00 per month helped him buy the 68 acre farm in 1878. He was known for his quick wit and a sense of humor that made his neighbors chuckle.

Built by hand, root cellars provided a cool place to store vegetables year-round. There were often bins for potatoes, onions and other vegetables that could be stored whole. Other items, like apples, would be stored in barrels. Canned goods, put up in glass jars, would line shelves in the basement. This cellar hole appears to have an entrance from the outside, a feature not common among the houses in the Stevenson Brook valley.

The map below shows the location of some of the houses that used to be in this area. What used to be called Bryant Brook is now called Stevenson Brook.

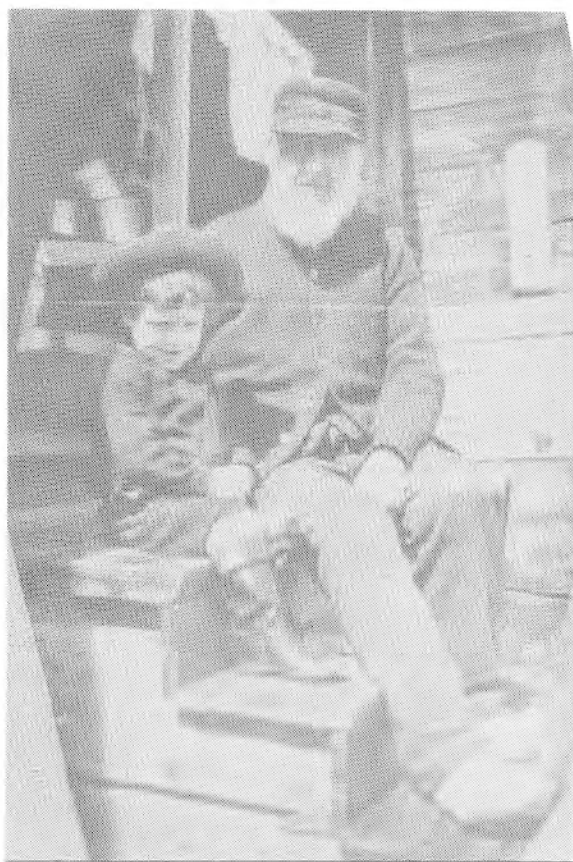


From the cellar hole, retrace your steps back to the main trail. Just before reaching the main trail,, the side trail crosses the old Dalley Road, the main route for farms on the side of Ricker Mountain to reach the main village. Dalley Road once connected with Waterbury Center and Gregg Hill on the opposite shore of Waterbury Reservoir.



*above: the Dalley
Farmhouse*

*right: Dan Dalley
and grandson*



11

PASTURE PINES AND APPLE ORCHARDS

This site was likely once an apple orchard, evidenced by all of the apple trees in the area. Although they are now either dead or in poor condition, these trees used to produce fruit yearly for the Dalleys. Now, white pines have overtopped the apples and outcompete them. The pines here were probably planted for soil stabilization soon after the land was abandoned. Notice the lone red pine here.

Some of the white pines have two main trunks starting part way up the tree. These trees were attacked by pine weevils, which killed the terminal bud on the tree's main vertical shoot. To compensate for losing its top, a pine responds by turning two lateral shoots, or side shoots that would otherwise become branches, into terminal shoots. Note that many of the trees with double trunks have them starting at about the same height. They were probably attacked by pine weevil in the same year.

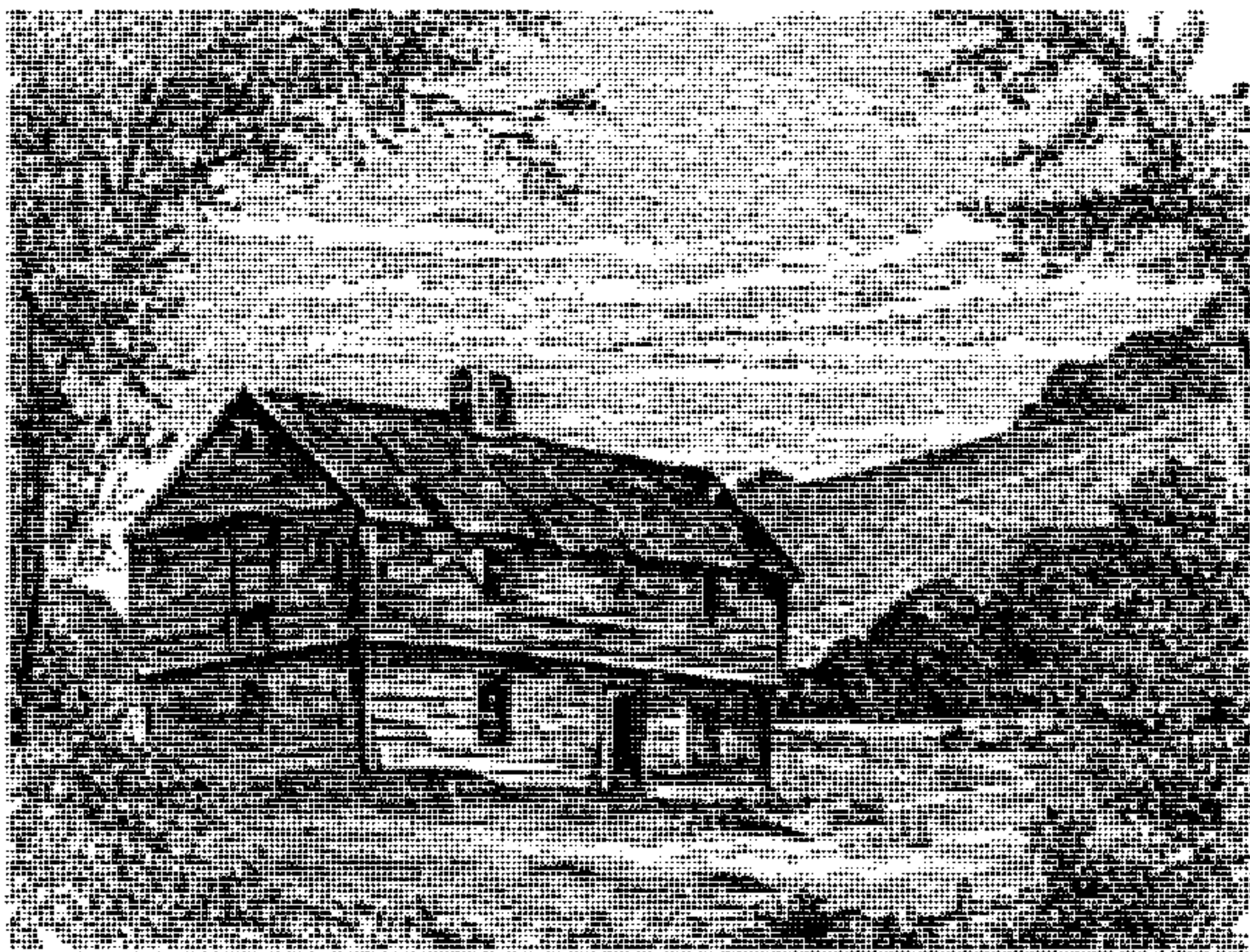


Tracy Scott

NATURAL FIELDS

Of the three terraces referred to earlier, you now stand on the top one. These geologic formations were useful to early farmers, because the relatively flat surfaces and steep sloping sides made it easy to contain livestock and keep them out of crop fields.

A stone wall ran along the top edge of this terrace to keep animals from venturing down the steep banks and hurting themselves. The several large, old maple and ash trees that grew along the fence started out as tiny refugees growing among the stones. For some reason, they were never cleared. Right after the end of the Civil War, these trees growing in along stone walls were the few that remained after 75 percent of Vermont was cleared for sheep pasture. Today they still stand, with no value as timber, but with great importance to wildlife. The two maple trees, with dead limbs and hollow hearts, provide homes to animals like raccoons, flying squirrels, and fishers, who all depend on dead and dying trees with cavities in them.



After descending the steps, follow the trail back to the parking area to complete the trail. We hope you have enjoyed your hike. If any questions remain unanswered, the Park Naturalist will be happy to try to answer them for you. Enjoy Little River!