

14. Stumps and Red Pine — The pine stumps throughout the area are a reminder of our history, when the “shanty boys” lumbered the pine from Michigan. The two small pines on either side of the trail are red or Norway pine, identified by its “pink” scaly bark and long needles growing in pairs. The red and white pines were the two most valuable trees lumbered from Michigan.

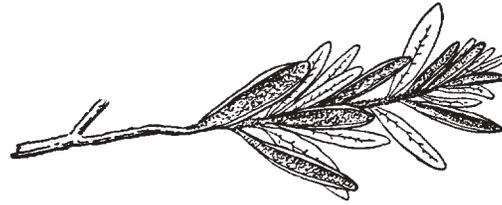
15. Pintail Pond — A pond is described as a quiet body of water so shallow that rooted plants grow completely across it. The highly acid water and special plant growth is typical of areas we call “bogs.” Once a small lake, it is now choked with vegetation and will eventually fill in completely. The metal rod attached to the bridge may be pushed down into the mat of vegetation that has filled the lake. Because of the serious danger of breaking through this mat, please remain on the trail at all times!

16. Plants of the Bog — The bog is “home” for many exciting species of plants. To protect these plants, please stay on the trail. The impact of your feet will surely destroy them, and endanger you, should you break through the mat.

Sphagnum or Peat Moss — The dense, floating mat of this moss is the same moss used by anglers to keep their bait moist. The moss leaves contain many empty cells with many holes in their walls. These cells hold several times their weight in water, the slow release of which will keep the moss damp even in dry weather.

Sundew — a miniature plant that secretes a sweet, sticky liquid attracting insects to moist, hairy leaves. The entrapped insect is eventually “digested” by the plant.

Pitcher Plant — The hollow, pitcher-shaped leaves contain a mixture of rainwater and plant juices. Insects are trapped by the downward pointing hairs on the inside of the “pitcher” and eventually drown in the liquid. Again, the insect is “digested” by the plant.



17. Laborador Tea — Plant names often provide valuable information about that plant. This plant is found extensively in the subarctic region and northern Canada, hence the first half of the name. It was used widely for brewing tea throughout the Revolutionary War.

18. Pileated Woodpecker Holes — At the base of these white cedar trees are rectangular holes made by Michigan’s largest woodpecker. The crow-sized bird has a black and white body with a bright red head. The large holes it drills in search of insects may weaken a tree to the point that a strong wind can topple it.

19. Tamarack and Black Spruce — These two “evergreens” are common trees of Michigan bogs. Although both are thought of as evergreens, the Tamarack’s needles turn yellow and are shed each fall. The Black Spruce is a close relative of the “Christmas tree,” or white spruce.

20. Yellow Pond Lily — Also called cow lily or bullhead lily, its two-to-four foot stem is connected to a potato-like root lodged at the bottom of the pond. The root is a favorite food of muskrats.

**THANK YOU FOR WALKING THE TRAIL. WE HOPE YOUR STAY AT RIFLE RIVER RECREATION AREA IS AN ENJOYABLE ONE.**

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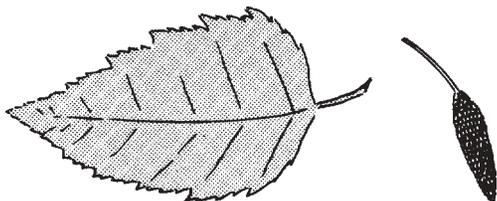


*“Enjoy your hike”*

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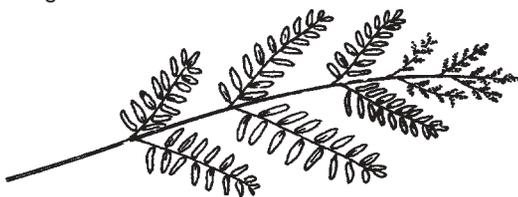
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**WELCOME TO OUR SELF-GUIDED NATURE TRAIL. THE TRAIL IS MARKED WITH NUMBERED POST. THESE NUMBERS CORRESPOND TO THE NUMBERS ON THIS BROCHURE. THE MATERIAL WE PRESENT WILL HELP YOU APPRECIATE SOME OF THE INTERESTING OUTDOOR LORE SEEN ALONG THE TRAIL. THE TRAIL WILL TAKE APPROXIMATELY AN HOUR TO WALK.**



1. White Birch — Occasionally you will notice a birch tree disfigured by a missing section of white bark. A thoughtless souvenir collector probably shortened the life of those trees. Native Americans in this area once used large sections of birch bark to cover their wigwams. As they moved from place to place, this bark was rolled and carried along to be used again.

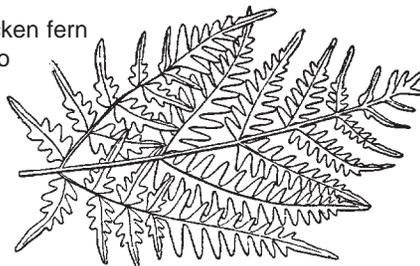
2. Tag Alder (Speckled Alder) — This small shrub-sized tree growing along the trail is important chiefly as wildlife cover and shade. It occurs in low swampy areas along the stream banks and drainage ditches. Its habit of growing out over small trout streams provides shade for fish but is a constant annoyance to anglers.



3. Flowering Fern (Royal Fern) — This fern is found throughout North America and is known by a variety of common names such as king fern, regal fern, ditch fern, and snake fern. Superstition gave it medicinal properties for it supposedly had the power to heal wounds. If one drank a liquid extraction from this plant, it was said that he would experience eternal life.

4. Bracken Fern — The bracken, our most common fern, grows equally well in sun or shade. Its underground rhizome is fire resistant and enables the fern to reestablish itself quickly after a forest fire. According to a custom of the seventeenth century, during

drought, bracken fern was burned to induce the desired rain. Young bracken, as they burst through the ground with their “fiddle head” appearance, were a favorite spring food of pioneers.



5. Thermometer No. 1 — Note the temperature on this open ridge. At a stop ahead in the cedar swamp, there is a second thermometer. Compare the temperature readings. What kind of temperature variation would you expect, if any and which thermometer should give the higher reading?

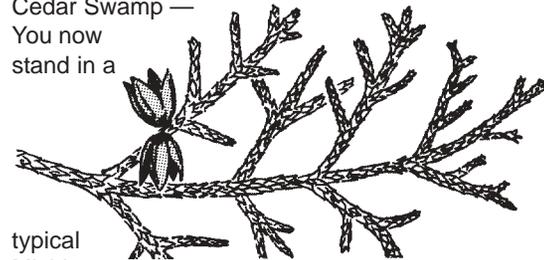
6. White Pine — These trees were probably too small to harvest in the late 1800's when this area was logged. Branches growing nearly to the ground indicate these trees spent most of their life in an open forest with plenty of sunlight. In natural conditions where competition for sunlight is great, the lower branches die and fall off giving the tree trunk a pruned appearance.

7. Thermometer No. 2 — If the day is hot, this thermometer in the cedar swamp will be several degrees cooler than the temperature at the first thermometer. This is nature's air conditioning, caused by the evaporation of water from the canopy of leaves above you.

8. Gamble Creek — This Brown Trout stream was closed to fishing from 1966-1974 in order to study the fish populations under natural conditions. The stream is again open to fishing during the trout season. Gamble Creek drains a 9½ square mile area north and west of Lupton as well as our recreation area.

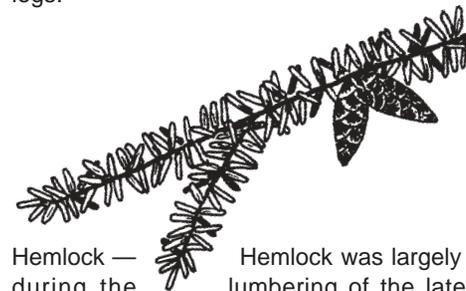
9. Railroad Grade — The gravel you are walking on is the base for an old railroad grade. The material underfoot was hauled in by horse and wagon around 1902. The developers built this grade to Grouse Haven Lake intending to remove marl (lime) for fertilizer and raw material for cement. The project proved unfeasible and folded soon after the grade was completed.

10. Cedar Swamp — You now stand in a



typical Michigan

cedar swamp. The tree root systems are shallow due to the high watertable. Consequently, you will see many leaning or fallen trees. The shallow rooted white cedar is the most common tree in the swamp. Because cedar resists rot when in contact with water, it is of prime use for posts, poles, shingles, and cabin logs.



11. Hemlock — Hemlock was largely ignored during the lumbering of the late 1800's due to the lower quality of its lumber. Hemlocks were eventually harvested commercially for bark, which was a main source of tannin used to tan leather. Today, hemlock is harvested for paper pulp, crates, and boxes. This small tree is the only Hemlock in this area of the park.

12. The area along side the trail was evidently a dump for the first settlers. Adjacent fields show that this area was farmed in the early part of the century.

13. Quaking and Largetooth Aspen (popple) — A reclamer of cut-over and burned-over land, “popple” is the principal forest cover on nearly one-third of Michigan's forests. Sunloving trees they protect young shade tolerant species like maple, pine, and balsam and are gradually crowded out. Aspen is deer browse. The buds are one of the most important winter foods of the ruffed grouse. The bark and branches are a favorite of the beaver too, The main commercial uses are pulp for book and magazine paper, and lumber for boxes, crates, and pallets.