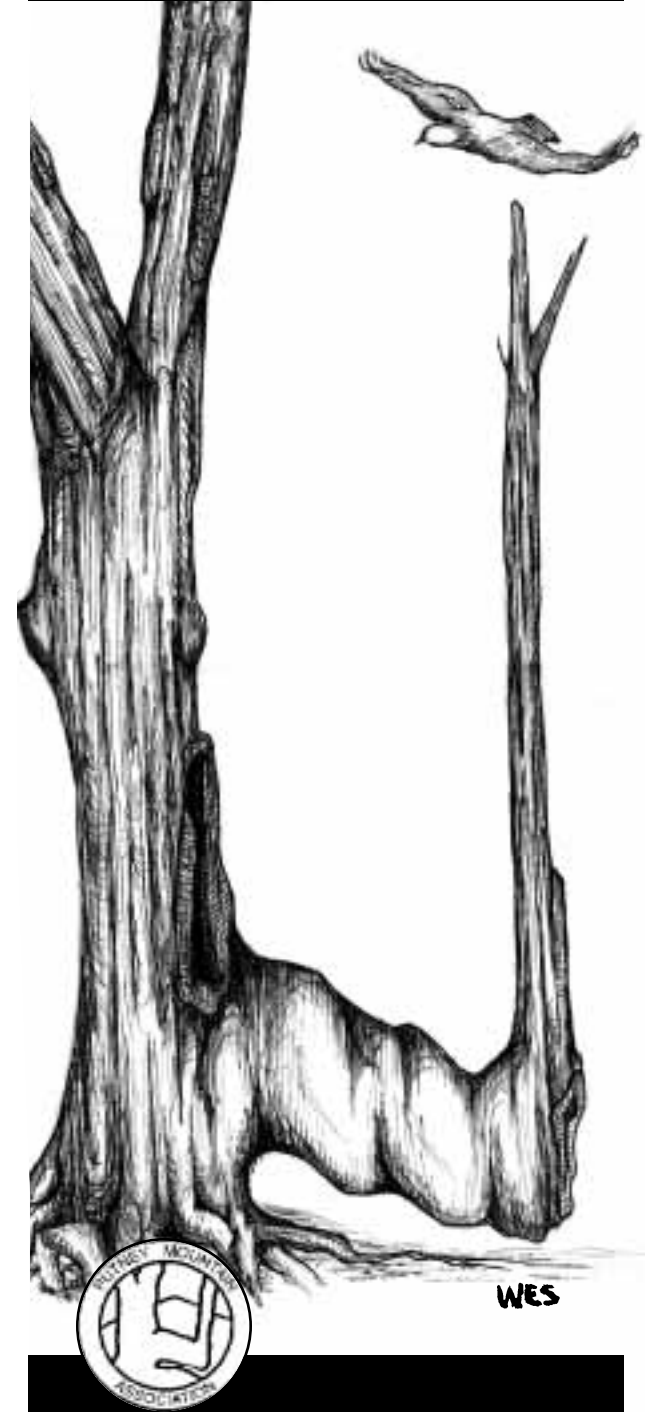


# PUTNEY MOUNTAIN TRAIL GUIDE



## OUR STORY

*The Putney Mountain Association was founded in 1946 to protect a popular outlook on the ridge adjoining the Putney Town Forest. Since the early nineties PMA has been working closely with the Windmill Hill Pinnacle Association to create the Windmill Ridge Nature Reserve and Trail, which now extends some 14 miles along the ridge and conserves over 1865 acres of upland wildlife habitat. The general public is invited to enjoy all the trails in the Reserve.*

## PLEASE RESPECT THE LAND AND OBSERVE THE FOLLOWING GUIDELINES:

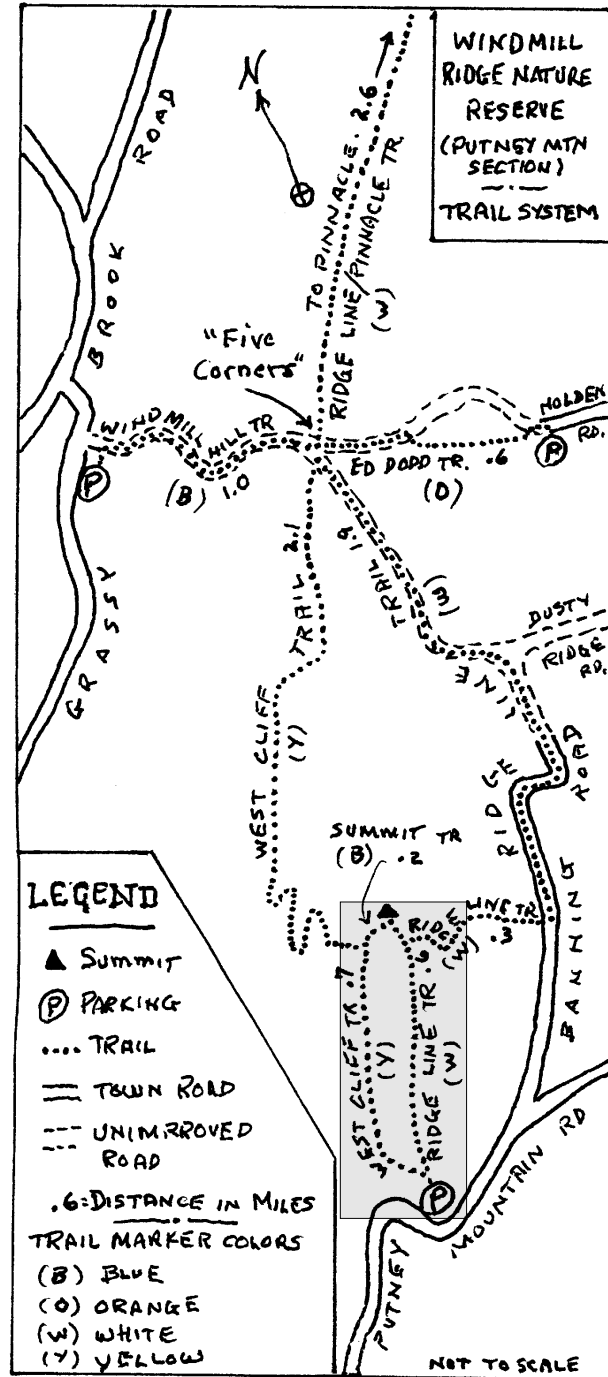
- Leave no trash: "carry in/carry out"
- No fires at any time
- Stay on trails
- Keep dogs and other pets under control
- No motorized vehicles (except snowmobiles on designated trails)
- Park only where indicated (P).

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 For more information,  
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Design: Flocksholm Design

## WINDMILL RIDGE NATURE RESERVE AND TRAILS (Putney Mtn. Section)



## PUTNEY MOUNTAIN ASSOCIATION MEMBERSHIP FORM

Claire Wilson, Membership, 26 Spring Hill Road, Putney VT 05346

Date \_\_\_\_\_

NAME #1

NAME #2

ADDRESS

TEL

E-MAIL

FAX

I enclose \$25 per person lifetime fee

I will earn my membership by contributing 4 hours of work.

I am making an additional contribution of \$ \_\_\_\_\_

Any amount over the membership fee is a gift, tax deductible and very welcome



# NATURE TRAIL STATIONS

**1. COMMUNITY** Putney Mountain is home to a forest community that is classified as hemlock-northern hardwood. This type of forest is predominantly comprised of maple, birch, beech, white ash, hemlock, black cherry, and in drier areas, red oak. One of its most appreciated features is its stunning fall foliage. While this may seem like standard fare to locals, the hemlock-northern hardwood forests and their seasonal show are unique; the only similar forests are found in China, surprisingly the closest match to our climate and geology.

**2. STRIPED MAPLE** One of the common understory trees of the Putney Mountain forest is the striped maple (*Acer pennsylvanicum*). Notice its vertically striped bark is green, indicating that the bark, as well as the leaves, are able to carry out photosynthesis, an important adaptation for life in the shade. You also may notice that some of the striped maples' bark is eaten off in areas, leaving grooved brown blotches on the trunk. This is a sign of deer and/or moose activity. The bark of the striped maple is especially palatable to these forest dwellers, which is precisely why this species is sometimes referred to as moosewood.

**3. PILEATED WOODPECKERS** Look around and you will notice large, oval-shaped gouges in some of the standing deadwood; these are signs of the northern pileated woodpecker, the largest woodpecker inhabiting New England. Pileated woodpeckers, identifiable by their size and bright red coloration atop the head, drill for both adult and larval forms of carpenter ants and wood borer beetles. Putney Mountain is ideal habitat for the northern pileated as well as other woodpecker species such as the yellow-bellied sapsucker whose drilling is also distinct: tidy rows of small, circular holes.

**4. HEMLOCK BLOWDOWN** In this section of the trail, on both the left and right, you will notice many fallen hemlock trees. Each tree's root system is exposed and seems to have been ripped out of the ground, evidence of a "blowdown." These hemlocks most likely fell during a single easterly windstorm which occurred in 1995. The large gap left by the hemlocks allows bright sunlight to reach the forest floor and creates an opportunity for saplings to fill the gap. Competition will intensify as the saplings shoot upwards and sunlight becomes more limited.

**5. STONEWALLS** Stonewalls are common throughout the state of Vermont and many of them date back to the agricultural boom of the 1800s when nearly 75% of the state's forests were cleared. There are several clues that one can use to determine the agricultural function of any stone wall and the land it borders including the size of the stones, presence of barbed wire and surrounding topography. Note that the land here is very steep and rugged. This is a good sign that it was not suitable cropland so therefore served another purpose, either hayfield or pasture.

**6. HOP HORNBEAM** Hop hornbeam (*Ostrya virginiana*), which is distinguished by its "cat scratched bark", does not typically exceed one ft in diameter so this individual is rather unique. Hop hornbeam often grows in the understory and is an indicator of dry, rocky conditions. Hop hornbeam is also known as "ironwood" for its extremely hard wood (the hardest of any species in New England) and is therefore desirable for making tools and other durable wood products.

**7. HAWK WATCH** The Putney Mountain summit is a renowned spot for observing the annual East Coast hawk migration. The Windmill Hill Ridge lies directly underneath the strong thermal air currents that carry many birds of prey to their winter destinations, some as far as South America. The fall migration begins in August and continues through December, the peak month being October. People come from far and wide to watch various birds of prey circling above the summit in "kettles." Highlights of the 2006 migration included 1885 broad-winged hawks, 980 sharp-shinned hawks, 509 red-tailed hawks, 182 osprey, 150 kestrels, and 430 other migrants including bald and golden eagles, merlins, and peregrine falcons.

**8. GEOLOGY** The summit of Putney Mountain is an especially intriguing geological area. The glaciers receded from New England around 12,000 years ago and signs of glacial impact, as well as tectonic plate shift (which is what initially created the mountain) are evident in this area. The bedrock that is exposed at the summit is about 400 million years old. The white rock is quartzite, which was originally sand while the silver-grey rock, psyllite, was ocean mud. The black rock further west is amphibolite, of volcanic origin.

**9. ELEPHANT TREE** This living landmark is locally known as the "elephant tree." The elephant tree is a white ash and is estimated to be over 200 years old. Notice that it is significantly older than almost all of the surrounding trees, suggesting that it is an example of a "wolf tree." Wolf trees were left to stand alone in a pasture to provide shade to the grazing livestock. There are many speculations on how its "elephant trunk" was created including the merging of two trees, Native American trail marker, and lightning strike.

**10. DOUBLE-TRUNKED BIRCH** The birch you see here, is considered "coppiced" or multiple trunked. Birch is one of the few species that coppices naturally without needing a disturbance. Coppiced trunking in general, is the result of multiple shoots being sent up at a time; if two young trees grow directly beside each other they will eventually merge into a single tree. Birches and speckled alder send up multiple shoots normally to increase the chances of one flourishing, a genetic insurance policy.

**11. VERNAL POOL** A short distance from this path lies a small vernal pool. Vernal pools typically fill with water during the spring and fall and often dry up during the summer. This seasonal water pattern provides ideal breeding habitat for amphibians whose eggs and larvae can develop without fish predation. Walking along this trail in early spring may reveal a chorus of wood frogs and spring peepers as well as the presence of spotted salamanders. Other amphibians (such as green frogs and American toads) use the pool later in the season as well as larger animals: moose prints have been seen here.

**12. GLACIATION** An interesting geological feature, known as a sheepback rock, is evident here. As the glaciers moved south over the land, they froze to sections of bedrock and ripped them off. The result: long formations of exposed rock with scoured, slightly sloped northern faces and rough, vertical southern faces.



This Nature Trail was created with the assistance of students from the Putney School.

