

# Mount Everett Field Notes, Tree Core Data, and Report

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## Tree Cores

### Procedure

Fourteen increment cores were obtained from pitch pines and two from northern red oaks in the dwarf forests on the S, W, and N sides of the Mt. Everett summit, during two visits: 9/26/99 and 11/7/99. (Three cores were taken by Bob Leverett and given to me for preparation and evaluation.) Two more cores, a white pine and an eastern hemlock, were obtained from Guilder Pond on 11/7/99. All cores were glued, sanded, and ring-counted; growth rates were measured and graphed on a few of the cores.

### Results/Discussion

Pitch pines cored ranged from 4.2" to 8.6" in diameter at coring height (as low as practical). Trees sampled were between 2 and 3 meters in height. Ring counts on pitch pine ranged from 75-135, with conservative estimated ages of 82-145. Pitch pine mean ring count was 101, mean age estimate was 112. The oldest trees appeared to be south and southwest of the fire tower.

Date	ID#	Species	DCH	Rings	Est. Age	Location	Notes
9/26/99	1	Pitch Pine	6.8	124	134	S of tower W of trail	
9/26/99	2	Pitch Pine	4.8	88	101	"	slow growth at center
9/26/99	5	Pitch Pine	7.2	105	120	NW of tower	slow growth at center
9/26/99	6	Pitch Pine	8.6	88	96	along trail 200m S of summit	
9/26/99	7	Pitch Pine	8.4	103	108	same as 6	pith present
11/7/99	1B	Pitch Pine	4.5	100	108	S of tower	
11/7/99	2B	Pitch Pine	5.4	135	145+	way S of tower	heavy resin in center
11/7/99	3B	Pitch Pine	4.2	80	90	SW of tower	
11/7/99	4B	Pitch Pine	8.5	108	130+?	SW 200m+ summit	sap and heart rot
11/7/99	6B	Pitch Pine	8.0	116	126	NW of tower	
11/7/99	8B	Pitch Pine	6.2	75	82	NW of tower	pith present
11/7/99	1LEV	Pitch Pine	4.5	95	105		Bob Leverett
11/7/99	2LEV	Pitch Pine	5.0	122	132		"
11/7/99	3LEV	Pitch Pine	4.6	78	91		"
<b>14 cores</b>			<b>Means:</b>	<b>101</b>	<b>112</b>		

I found these pitch pines difficult to sand, polish and count accurately due to their small sizes. As many as 80 rings per inch were present in many .25-inch areas of the cores. False rings, reaction wood, and resin impregnation lend to this difficulty, but most ring counts are likely only off by 2% or 3%, if at all. Full tree cross-sections I have seen on Mt. Wachusett and discussed in conversations with

Dave Stahle demonstrate that dwarfed pines such as these grow asymmetrically, and growth rate data for a given tree should be based on multiple cores from that same tree. After graphing several of the above cores and noting no clear signs of synchronized periods of high and/or low growth, I abandoned the graphing. I did look at all the pitch pine cores by decade and compared their relative growth rates visually. Ten of the cores appear to have increased growth rates in the 1980's, and a smaller number have increases around 1900-1910. Most other releases revealed in the cores are individual tree events.

About one half of the trees cored show rapid growth rates near their centers, with typical growth curves, but others had "ups and downs" and "slow starts" as well. The considerable variety in ages doesn't fit the theory of "one great pitch pine advents event," but I am puzzled as to why we don't have older trees, as bedrock pitch pines can get older, evidenced by recent cores taken on Wachusett Mt. I also wonder about the lack of dead trees and debris from pitch pine, which I also see on Wachusett. It's probably a complex system of localized releases and remnant trees, but I'd like to see a few older trees. They may be there, or the site may not allow for trees to reach advanced ages due to fire, ice, wind, etc.

## Other Notes

### Birds

Our visits were not in the nesting season, so important bird notes are confined to a few sightings and two exciting birds unearthed in Eleanor Tillinghast's historical research.

I noted Golden-crowned Kinglets feeding in pitch pines, apparently on insects (not the pine cones), on both visits. It was interesting to see these typical coniferous forest birds at eye level in the dwarf forest. I also noted Common Ravens, aerial and soaring around the mountaintops, on both visits.

Of far more interest was the potential presence of two birds, Bicknell's Thrush and Worm-eating Warbler:

Bicknell's Thrush is considered extirpated from Massachusetts, but is still found in high elevation spruce/fir forests in NY, NH, ME, and VT. The only Massachusetts location generally documented to routinely have Bicknell's present was Mt. Greylock, where 6-11 pairs nested between the early 30's and 1960. The population dwindled and was last recorded in 1972. One of Eleanor's historical references, George Wallace's "Four Seasons of Berkshire Lore," reported that Bicknell's was present on Everett: "a small colony is nearly always to be found summering in the stunted tree growth skirting the bald Dome." This is very interesting, and I suppose worth checking out in the nesting season in 2000, although I seriously doubt the birds are still present, given the Greylock population's demise. (By the way, the Greylock population may have disappeared due to increased disruption of the summit since the early 70's.)

Worm-eating Warblers were first confirmed nesting in our state in 1949, on Mt. Everett. (The first singing males were reported in 1923 from Bash Bish.) Again, Eleanor's references point out the presence of these birds on Everett, perhaps before 1949! Currently, Mt. Tom boasts the highest populations of these very rare nesting warblers, but I think Everett has a chance to equal this; again we need to visit during the nesting season.

Wayne Petersen, Mass. Audubon's ornithologist, was very interested in the historical references to these two birds, and in getting back to Everett; I will try to arrange for us to visit the summit in the 2000 nesting season to explore these potentials.

## Plants

"The whortleberry bush abounds, and the inhabitants in the vicinity flock to it in the months of August and September to gather the fruit" (from A History of the County of Berkshire, 1829). I was intrigued with Eleanor's historical reference to whortleberry, because one plant sometimes called whortleberry is *Vaccinium vitis-idaea*, also called mountain cranberry. This plant is endangered in Massachusetts and currently found pretty much only on Greylock. A Mt. Wachusett historical colony of the plant has not been relocated and is feared extirpated.

Whortleberry is most often used as a common name for *Vaccinium uliginosum* (Bilberry) which is only found in alpine situations in northern New England and further north, I believe, so that's out. It is possible that Black Huckleberry, *Gaylussacia baccata*, which abounds on Everett, could have been called whortleberry, but the timing of picking the berries in the historical reference seems late for picking huckleberries. (Huckleberries ripen about a week to ten days after blueberries in the Wachusett area, generally July to early August.)

I think its worth continuing to search for mountain cranberry on Everett. Some of the open areas on the north side of the summit looked likely to me, but I was unable to find any plants on our two visits.

## General

I consider Mt. Everett a virtually unique environment for Massachusetts due to its size and the extent of the dwarf pitch-pine community on the summit. It hosts some rare and unusual, if not unique species, and has the potential to preserve natural processes which we now know little about but which are important to protect. There may not be enough known about dwarf old-growth forests to evaluate Everett based on OG criteria. Regardless, it should be preserved for its uncommon community and juxtaposition. I believe it is an important piece of the nature of Massachusetts to preserve undisturbed.

Don't forget Tom Tynning's references to Eastern timber rattlesnakes on the summit. This is a state-listed species and worth having the Mass. Natural Heritage and Endangered Species Program involved in protecting its habitat on Mount Everett.