

# **Tree-Ring Data, Species Identification, and Informal Report on Mount Everett Site Visit, Nov. 7, 1999**

**Rick Van de Poll, Ph.D.  
Environmental Studies Department  
Antioch New England Graduate School**

rvandepoll@antiochne.edu

**November 13, 1999  
December 12, 1999**

As far as Mt. Everett goes, I have the tree ring data as follows (in order of collection):

Yellow Birch	44 cm dbh	approx. 107 yrs (tough to read this one)
Red Oak	42.5 cm dbh	130 years (the one at the first view)
Pitch Pine	18.5 cm diam at .2 m	55 yrs
Pitch Pine	23 cm diam at .21 m	107 years
Pitch Pine	17 cm diam at .25 m	155 yrs
Pitch Pine	18 cm diam at .2 m	90 yrs
Red Oak	37.5 cm diam at .28 m	100 yrs
Hemlock	76 cm dbh	97 yrs for outer 8.25 cms only!

I concur with most authors in pointing out the fact that Mt. Everett supports a regionally rare natural community on its summit that shows little to no sign of man-induced alteration since initial settlement.

Whereas there are several low summits in New England that support pitch pine communities, dwarfism is extremely rare. Intact natural communities that exhibit little human disturbance are also rare. These two attributes point to the singular conclusion you have suggested in earlier emails, namely, that some type of state protection is warranted.

Shallow, sterile soils and the absence of soil tilth likely continues to dwarf the pitch pines, oaks, and associated tree species on the summit.

Growth rates are extremely low for both dominant species, especially for the red oak which is known to optimize ectomycorrhizal associations with pine species. However, overall mycorrhizal development is likely "stunted" as well; a full estimation of macrofungi, especially those that form mycorrhizal associations with pitch pine and red oak, is suggested during the growing season. This may corroborate the findings of Philip May relative to the comparably low (but unique) diversity of lichen species.

Tree core data suggest that Paul Van Deusen's initial age estimate of 100 - 200 years is correct, and that the relative absence of fire on the summit could result in a significant age extension of the upright pitch pine stems.

The presence of a diversity of age classes among the pitch pines suggests a continuous and self-sustaining natural community atop Mt. Everett. I agree with Tom Wessels in that this likely represents a mid-Holocene “relict” community. However, four to five thousand years of persistence also suggests a carefully mediated balance of natural disturbance and regeneration. The absence of soil charcoal, thick duff layer, and variously aged ‘recruits’ infer greater importance to those disturbance vectors pointed out by Peter Kalm in 1749, namely, “heat, dryness, and the violence of wind.” I might also add that lightning itself could be significant in exposing mineral soil to these apparently genetically consistent individuals atop this exposed summit.

Beyond this, I applaud the work of other researchers in putting together a fine documentary of uniqueness relative to Mt. Everett, and commend your “rallying call” to get all of us together in this regionally significant investigation.