Pisgah 4.25.87

"Andrew L. Sargent York Village, Me. Oct 1933"

piece of birch bark found in rock cairn near SW corner of Harvard Tract, with this note inscribed. I've walked past the rocks many times before but never thought of taking it apart. Cairn is near the small valley leading down an intermittent stream. This is the route that used to be taken by the Harvard Forest staff to get to the tract. R.T. Fisher had posted a sign near the boundary at this point - the nail holes are still apparent (3 holes in a hemlock) but the sign was taken down in the 1970's, I believe.

Came up with Biology 204 - 5 students to undertake some forest reconstruction studies. On the hemlock ridge (NW portion of stand ~40m E of boggy hollow, ~50m SE of NW corner) we cored all trees in an 8m x 8m plot and sampled down wood by measuring orientation, breakage vs tip-up, diameter at base and length. Stand is primarily Tsuga although one pine ~2½' diameter and some beech occur.

Walked along W boundary and north of tract. The large clump of standing trees (Tsuga, Pinus, Fagus) on the line near NW corner show a fire scar on 2 of the trees. Similar scars are seen on trees just N + W of the tract. The scars look only 10-30 yrs old on trees that died in 1938 so it must have occurred in the early 1900's. There don't seem to be many scars on trees on the tract.

May 16, 1995

Field trip to take HF researchers to Pisgah

D: Foster, A. Allen, J. McLachlan, S. Cooper-Ellis, G. Motzkin, K. Chamberlin, D. Bowman (Bullard), C. Kreugler

V. alnifolium in full bloom. Took photos, walked up Chesterfield trail to NW corner across to H+S plot. Lunch on highest point of eastern ridge. Major observation for DRF: downed trees appear much wetter and more covered w/ bryophytes than in past. Standing + surviving large remaining trees are continuing to die, snags are falling apart. Only 1 hemlock + 1 whitepine remain alive in the grove on the W line.

Beautiful weather.

A few notes I put down after last month's trip, relative to structure.

Pisgah Trip Reflections, Audrey Barker Plotkin, October 2008

What makes the Harvard Forest Pisgah tract special?

- Its history as a model of nature.
- The size of the trees, living and especially dead
- The wild feeling. But what does that mean anyway?
- The microtopography.

To me, something really cool is the forest structure. I really loved the title of John Weishampel's seminar at Harvard Forest, 'Exploring forest textures'

Forests are beautiful in part because their structure comprises an array of vertical lines. This can range from an extremely uniform red pine plantation, in which the spacing and height of the lines is unvarying. This structure lacks richness and is monotonous, but even it has a certain soothing beauty, maybe like a Phillip Glass composition.

Now, a stratified forest includes trees of varying species and/or ages, and tends to vary more across the horizontal plane. That is, there is spatial clumping produced by microenvironment and reproduction patterns of different species. The dominant line of the forest is still vertical, however.

At Pisgah, the line of the forest is crisscrossed, moving both upwards vertically with the living trees and scattered snags, and horizontally, with the massive fallen trees – mainly along the ground but also suspended up to a few meters from the forest floor.

Does structure matter in and of itself? Is it imperative to link structure to function in order for the structure to have meaning? It is aesthetically satisfying to describe forest structure, but what makes it science?

Criss-crossed trees at Pisgah, October 2008 (ABP).