

**WHY TREES GROW WHERE THEY DO!**  
(PLUS A LITTLE SILVICULTURE TOO!)

W.B. Leak



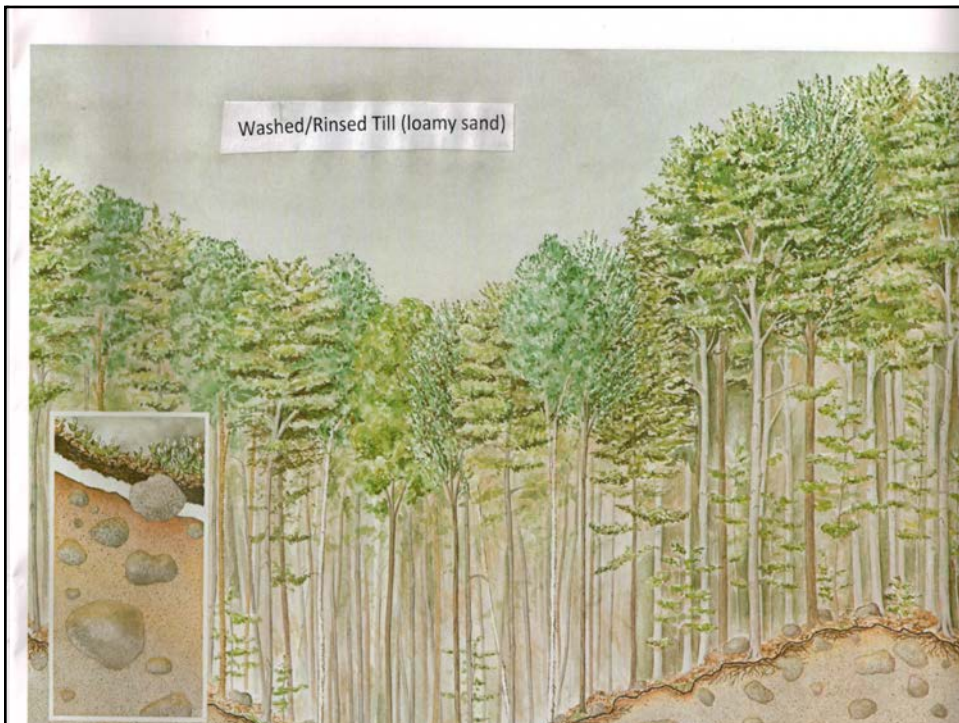
## WHY?

- 1. Climate: North vs south. High vs low.
- 2. Bedrock source: granite vs limestone.
- 3. Soils: glacial behavior.
- 4. Disturbance: land-use, natural disturbance, harvesting, etc





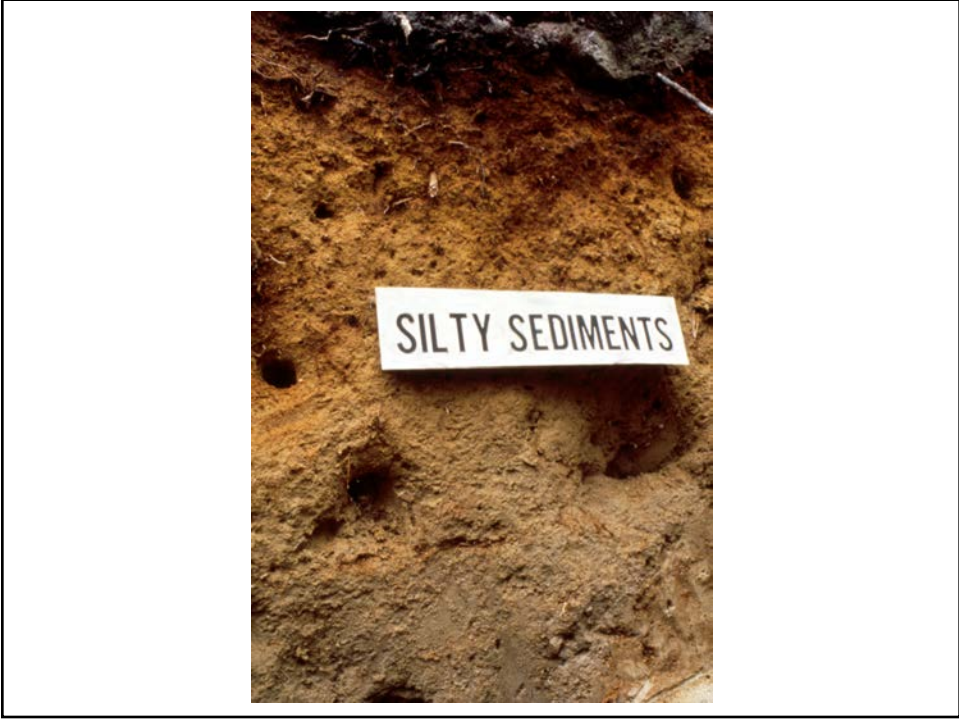


















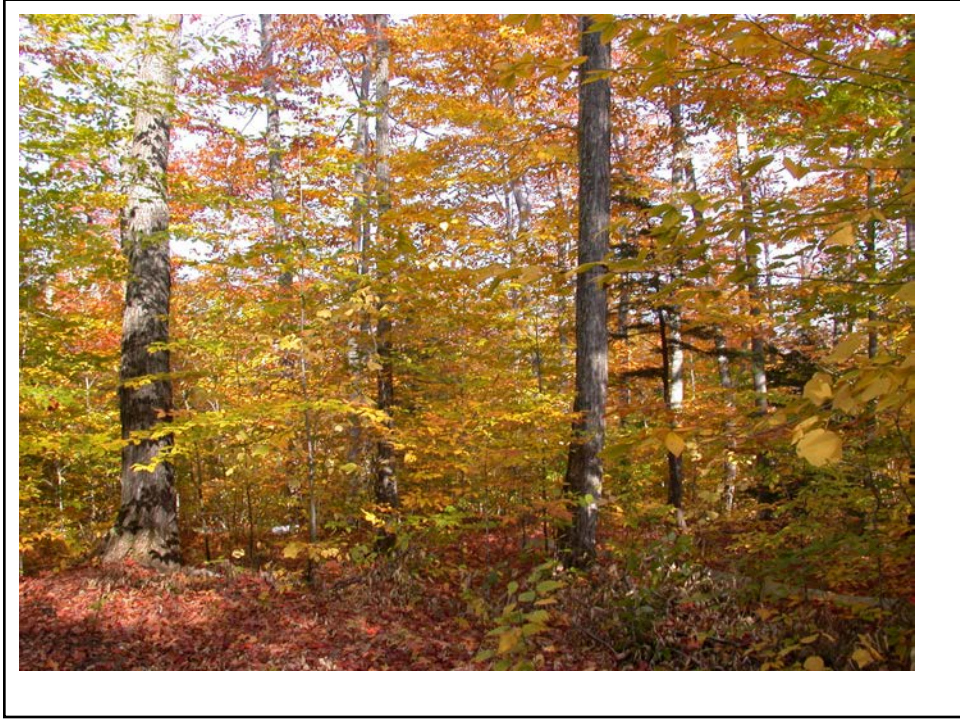


## OLD-FIELD PINE











**Bear-clawed beech**













Analyzing Mammal Track Counts on the  
Massabesic Experimental Forest in Southern  
Maine

By

Staff: Massabesic and Bartlett Experimental Forests



## How About Nutrient Depletion

From  
Heavy Harvesting????

- “WT harvesting does not appear to have much of an influence on this nutrient reserve (calcium)” “some evidence of calcium depletion in uncut watersheds”
- (A complete turnabout from earlier research on nutrient depletion).
- NRS GEN Tech Rept. 17, 2007.

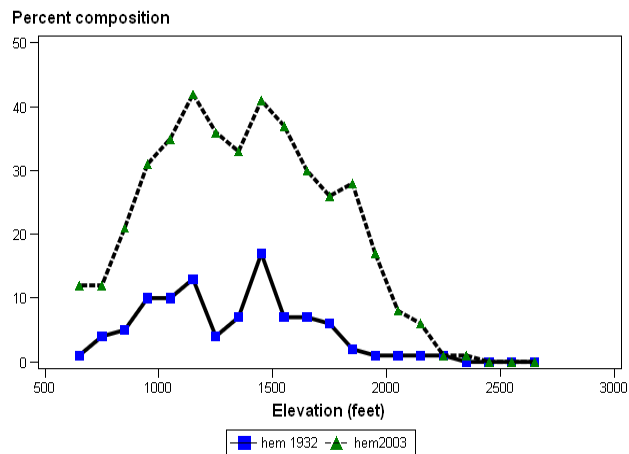
## How About Acid Rain??

Growth Rates Then and Now!!  
(annual diameter growth)

- Two Thinning Studies: 70-year-old stand
- Species    1941-51            2003-2010
- Beech        .16                            .17
- Yel Bir       .11                            .13
- Sug Map     .15                            .19
- Red M        .13                            .18
- WA            .12                            .17

# How About Species Changes

From  
Climate Change????





## Resilience of Hardwood Stands

- 1. Photo of poor practice 1952.
- 2. Another from 1952
- 3. Same stand in 2003



