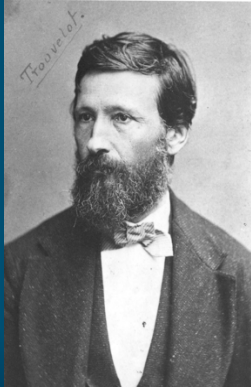



1900

Gypsy moth introduced in 1868 or 1869



E.L. Trouvelot



CAES

Photo source: Sandy Liebhold
<http://www.fs.fed.us/ne/morgantown/4557/gmoth/trouvelot/>



1900

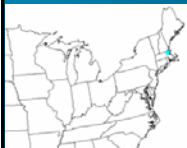


1914




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Map source: Sandy Liebhold
<http://www.fs.fed.us/ne/morgantown/4557/gmoth/atlas/#spread>



1900


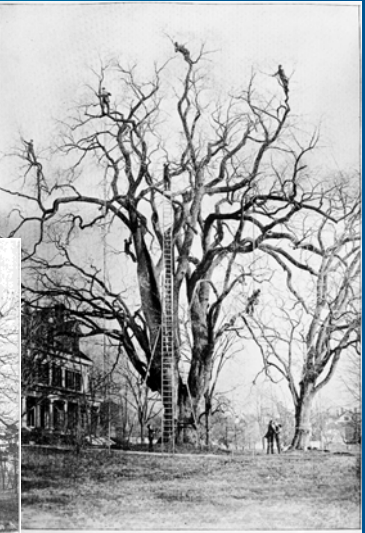



1934



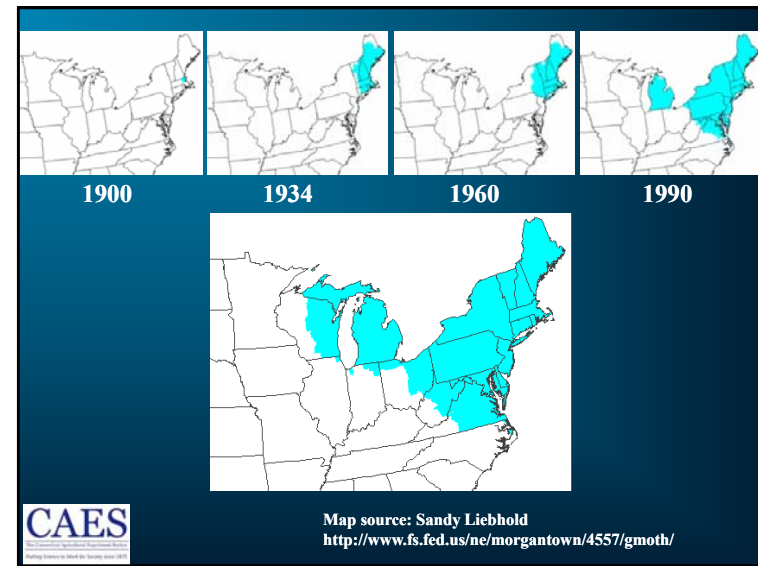
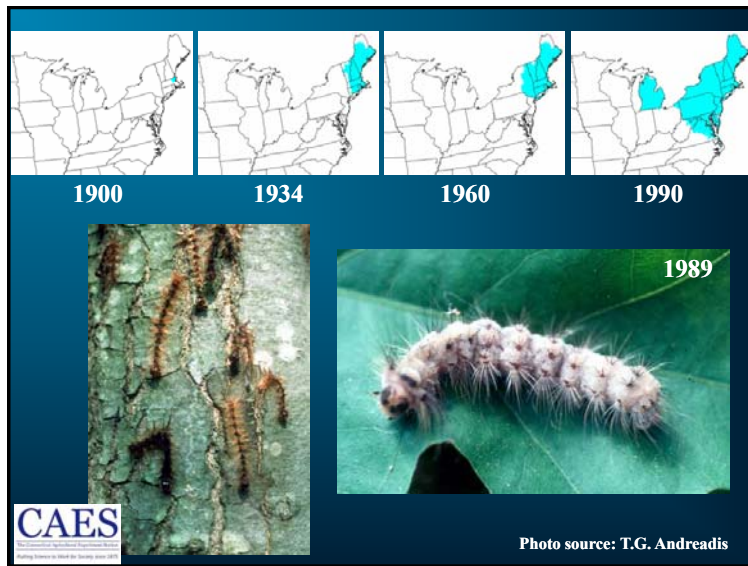
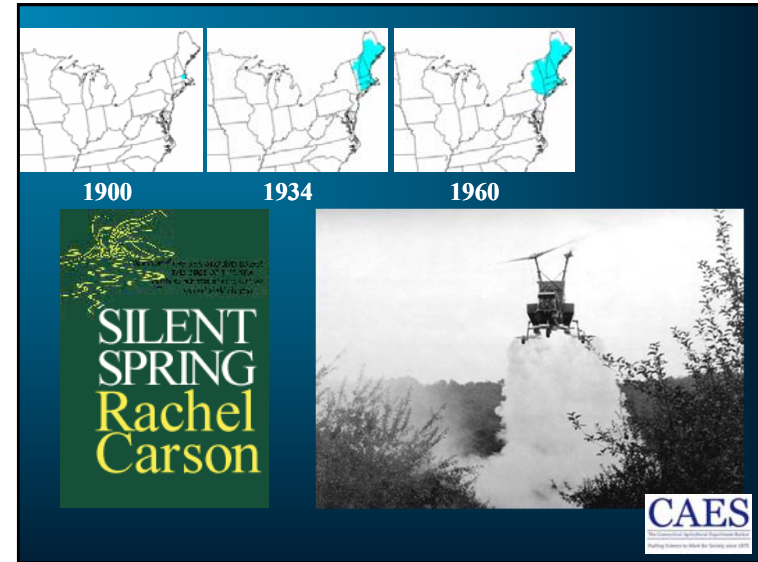
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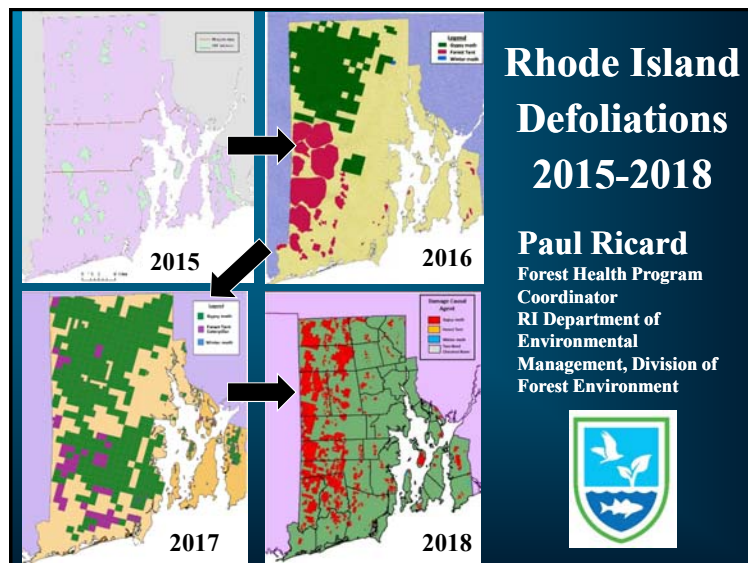
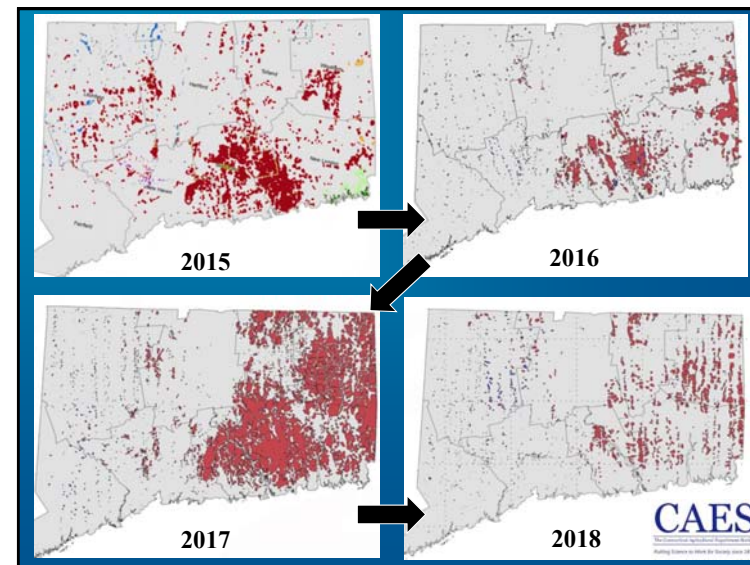
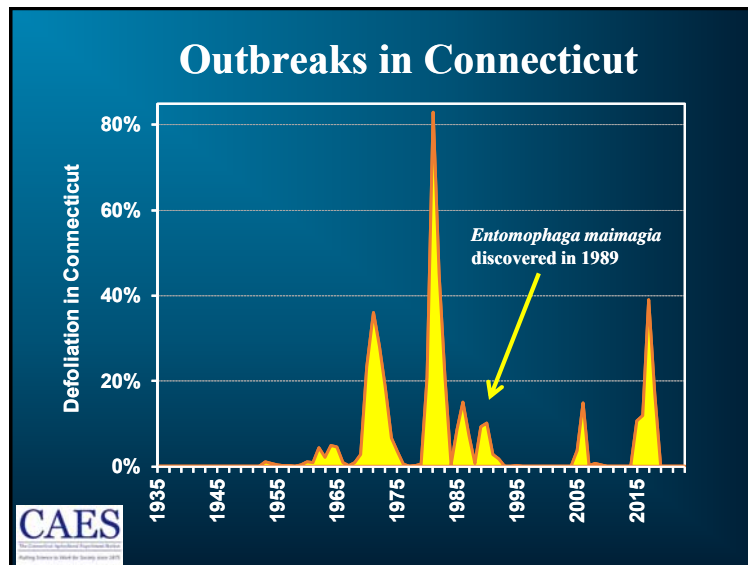
Photo credit: CT-DEEP



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PLATE XXXVI. Men at work on the Dexter elm, Malden. From a





Weather conditions for fungus *Entomophaga maimagia*?

Impact dictated by abundance of resting spores and favorable weather conditions (high humidity) for secondary conidia infection.

Low resting spore load not a problem if favorable weather (i.e., damp).

Problem if spore loads are low, spring is dry, and gypsy moth numbers are increasing.

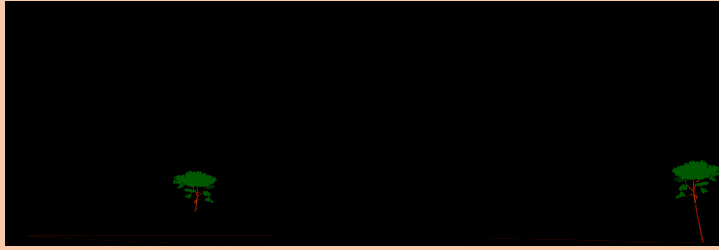
Result: isolated outbreaks when May and June are dry.

Details and control options for homeowners will be posted on our website in the spring.

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Credit – Kirby Stafford (CAES)

Crown classes



C s D s s C i C i s C C C s


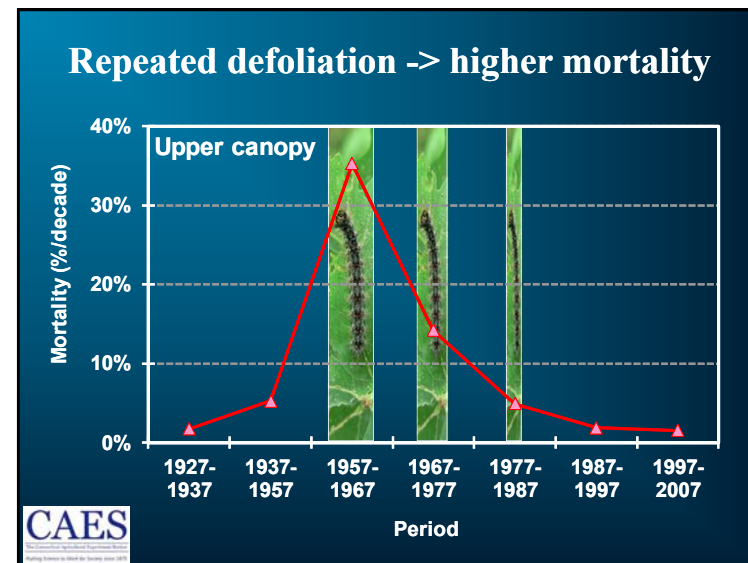
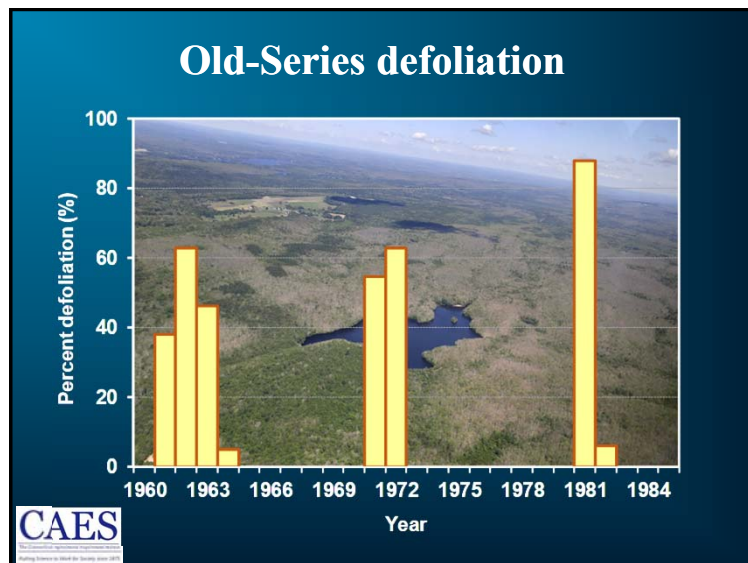
D – dominant, top and sides in full sun
C – codominant, top and partial sides in full sun
i – intermediate, only top in full sun
s – suppressed, growing in shade of other trees

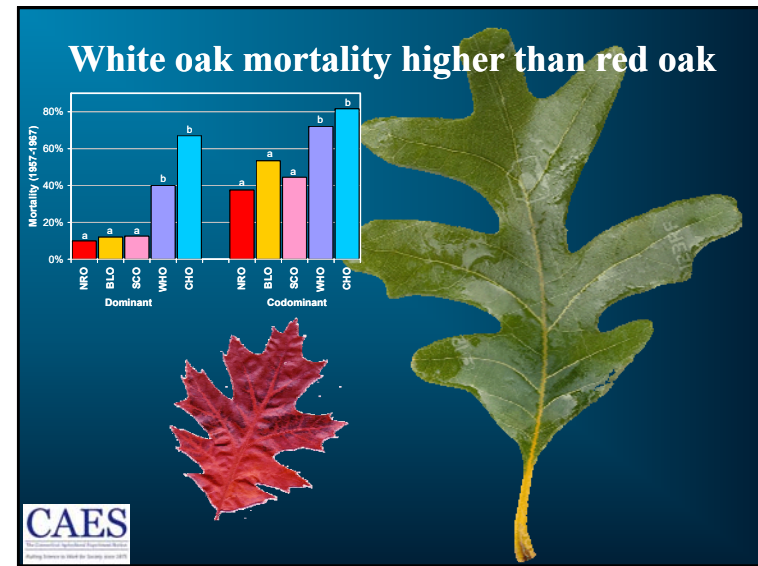
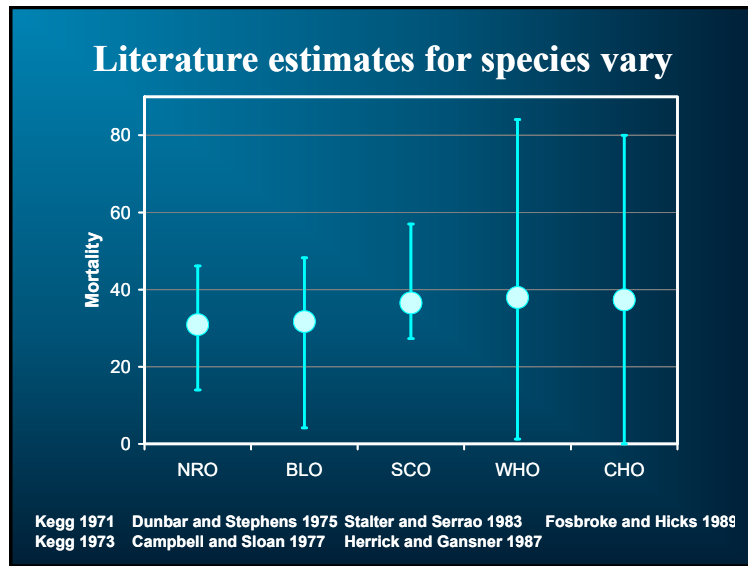
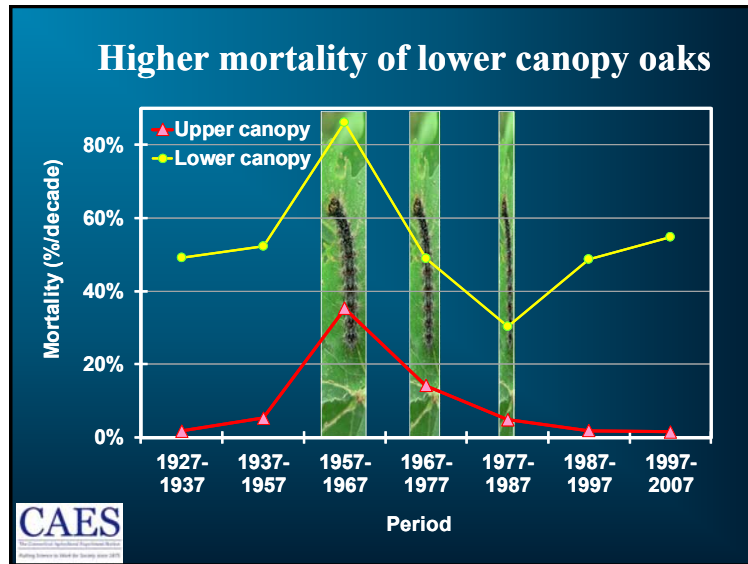


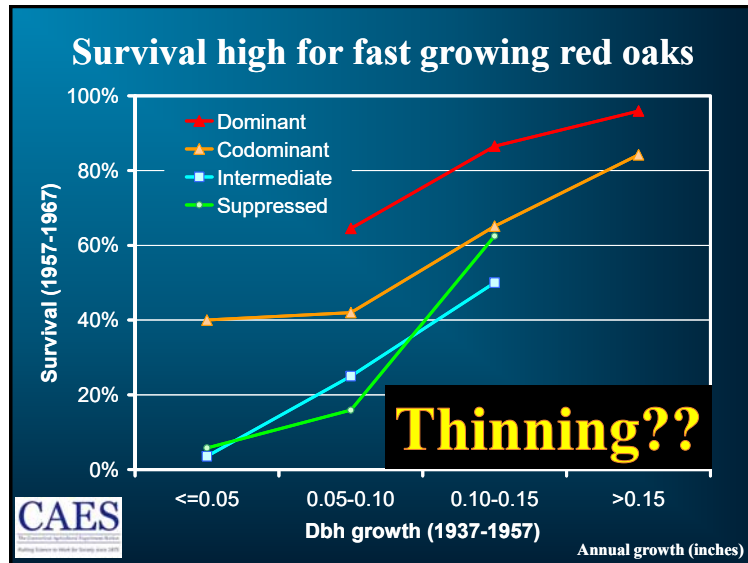
Impact of defoliation

Multi-year events are important
Loss of lower canopy oaks
Loss of white oaks
Loss of low vigor red oaks

After defoliation





Impact of defoliation

- Multi-year events are important
- Loss of lower canopy oaks
- Loss of white oaks
- Loss of low vigor red oaks

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Impact of defoliation

- Multi-year events are important
- Loss of lower canopy oaks
- Loss of white oaks
- Loss of low vigor red oaks

After defoliation

What was longer-term impact on surviving trees?

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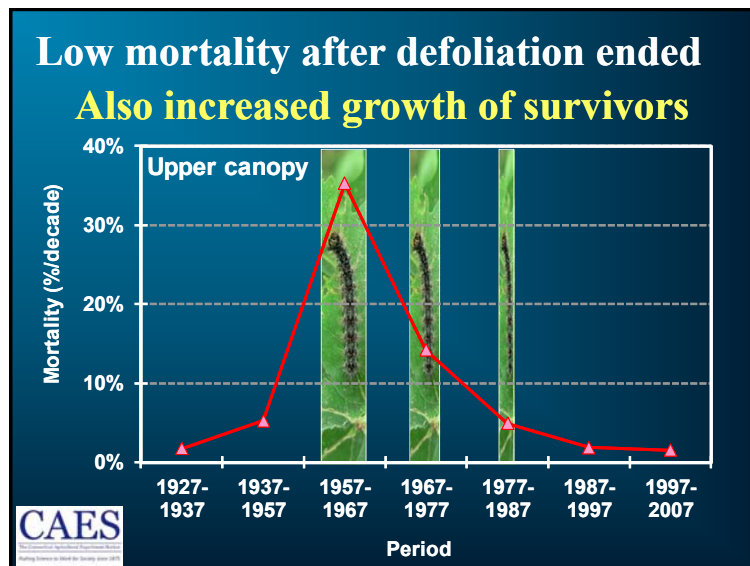
After defoliation

What was longer-term impact on surviving trees?

Recall

Slow growing (low vigor) trees removed by defoliation initiated mortality

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Bottom line I

MULTI-YEAR defoliations removed less vigorous trees, lower canopy trees, and white oaks.

Surviving trees did recover and showed little longer-term (20+ year) effects.

However

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