

Stand Trajectory in Forest Assessment

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CAES Forest Health Symposium





I don't really worry about the forest. It is patient, resourceful, creative, relentless, powerful, thorough. We can work with that.



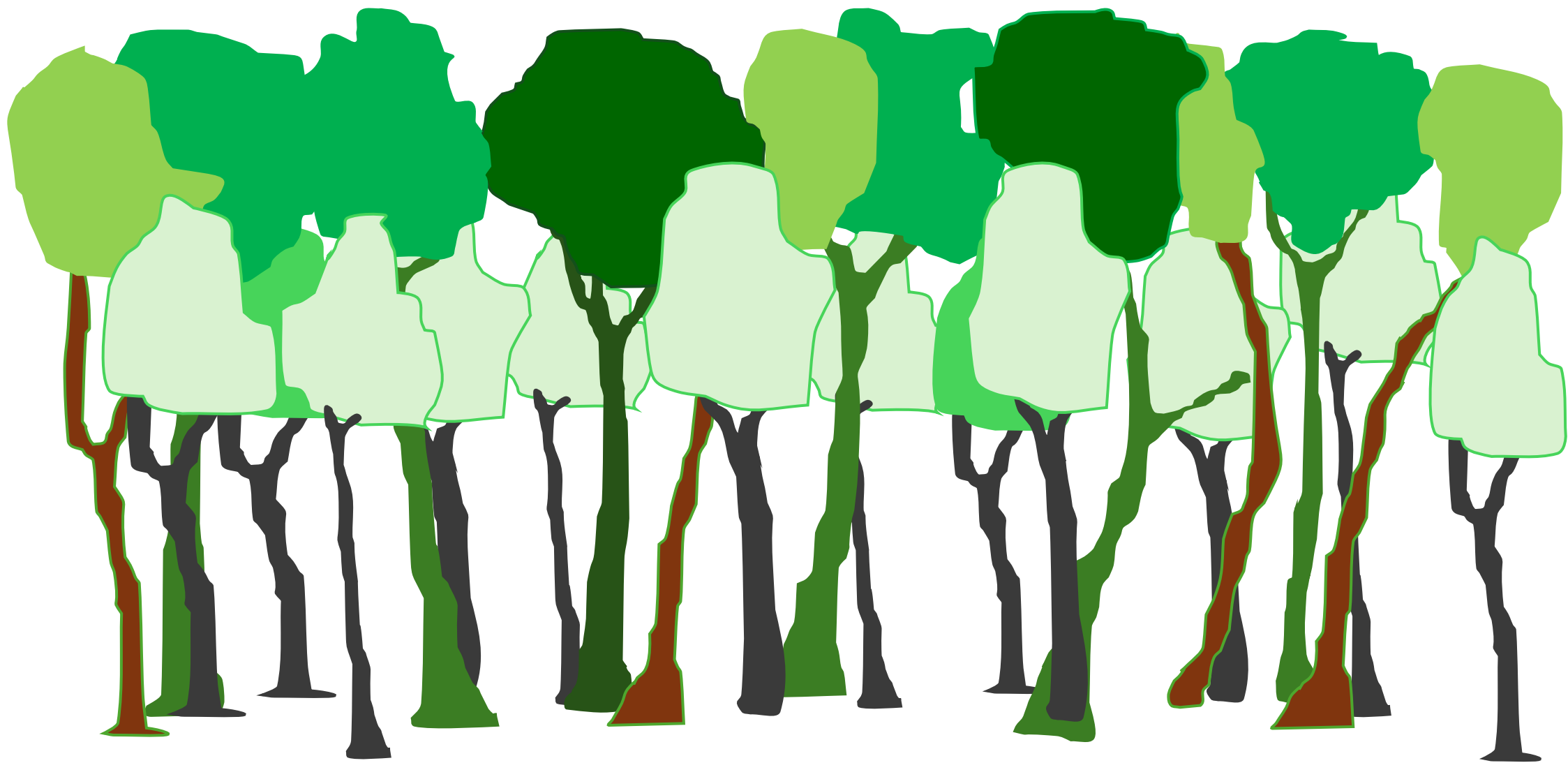
Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Ce

Oak - Hickory

**Birch – Beech -
Maple**

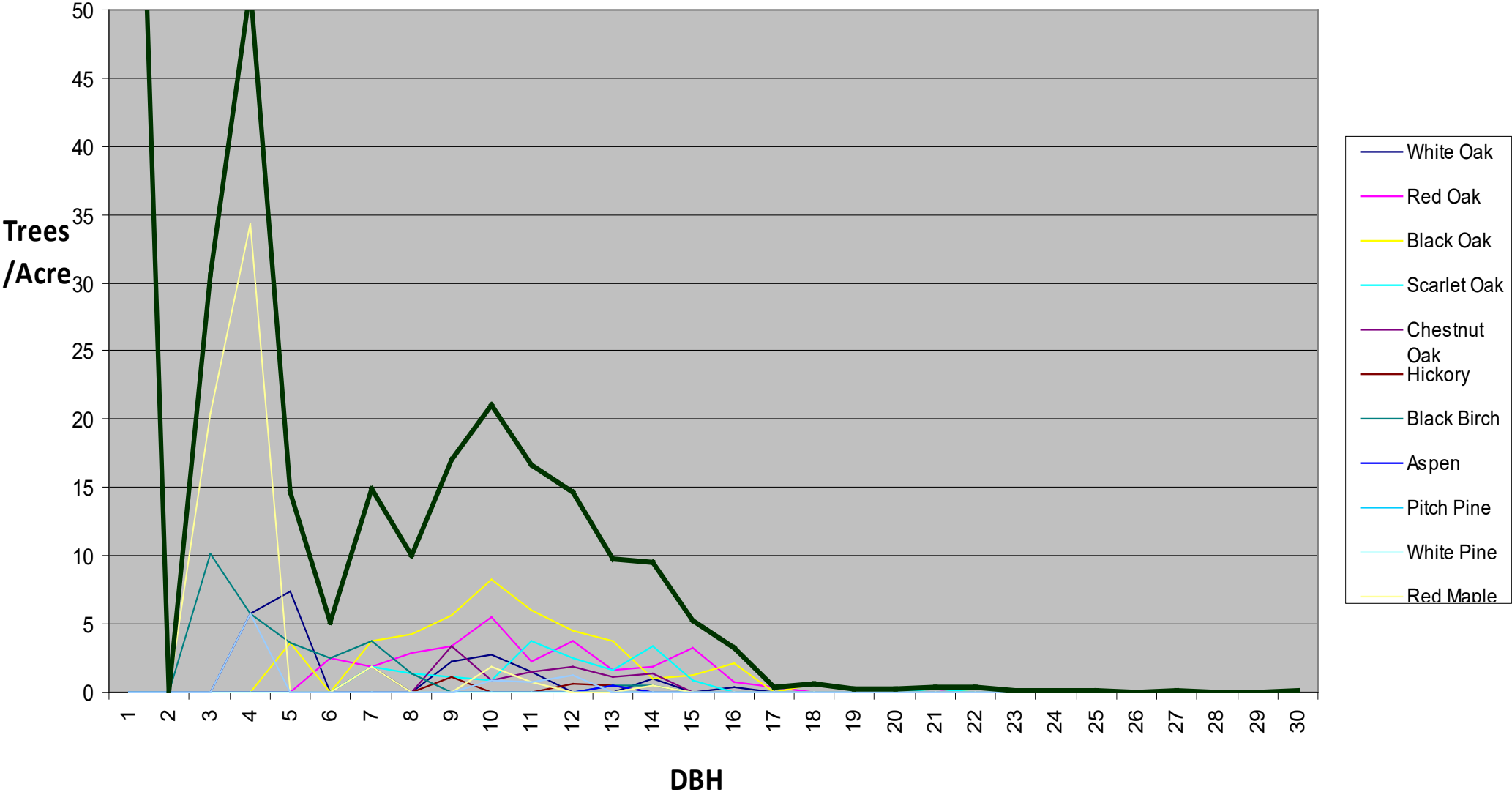
**Blueberry –
Witch Hazel –
Mountain Laurel**



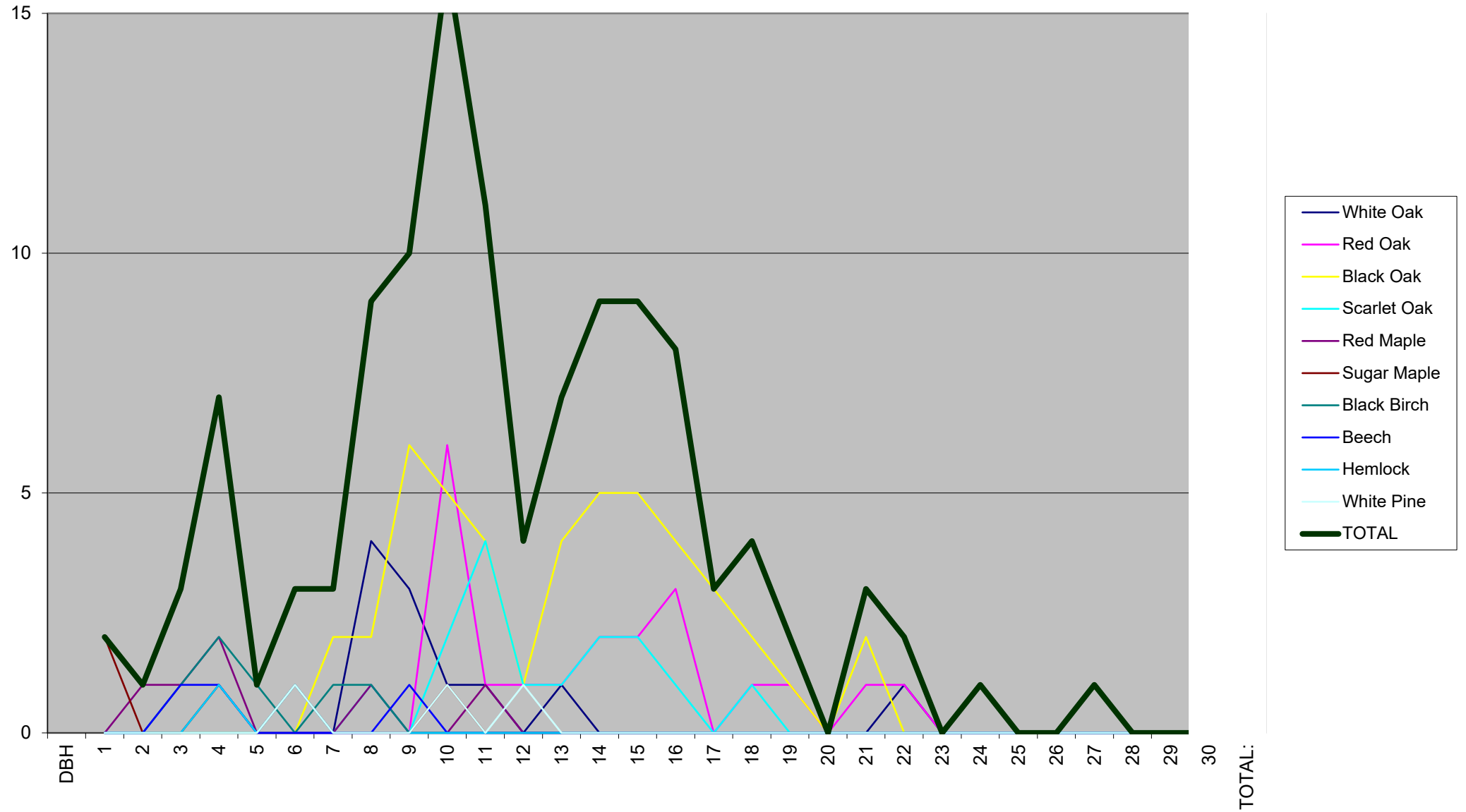


Even-aged, stratified mixture.

Number of Trees per Acre RSD 17 Oak Stand



Basal Area (sq ft) per Acre RSD-17 Stand 4



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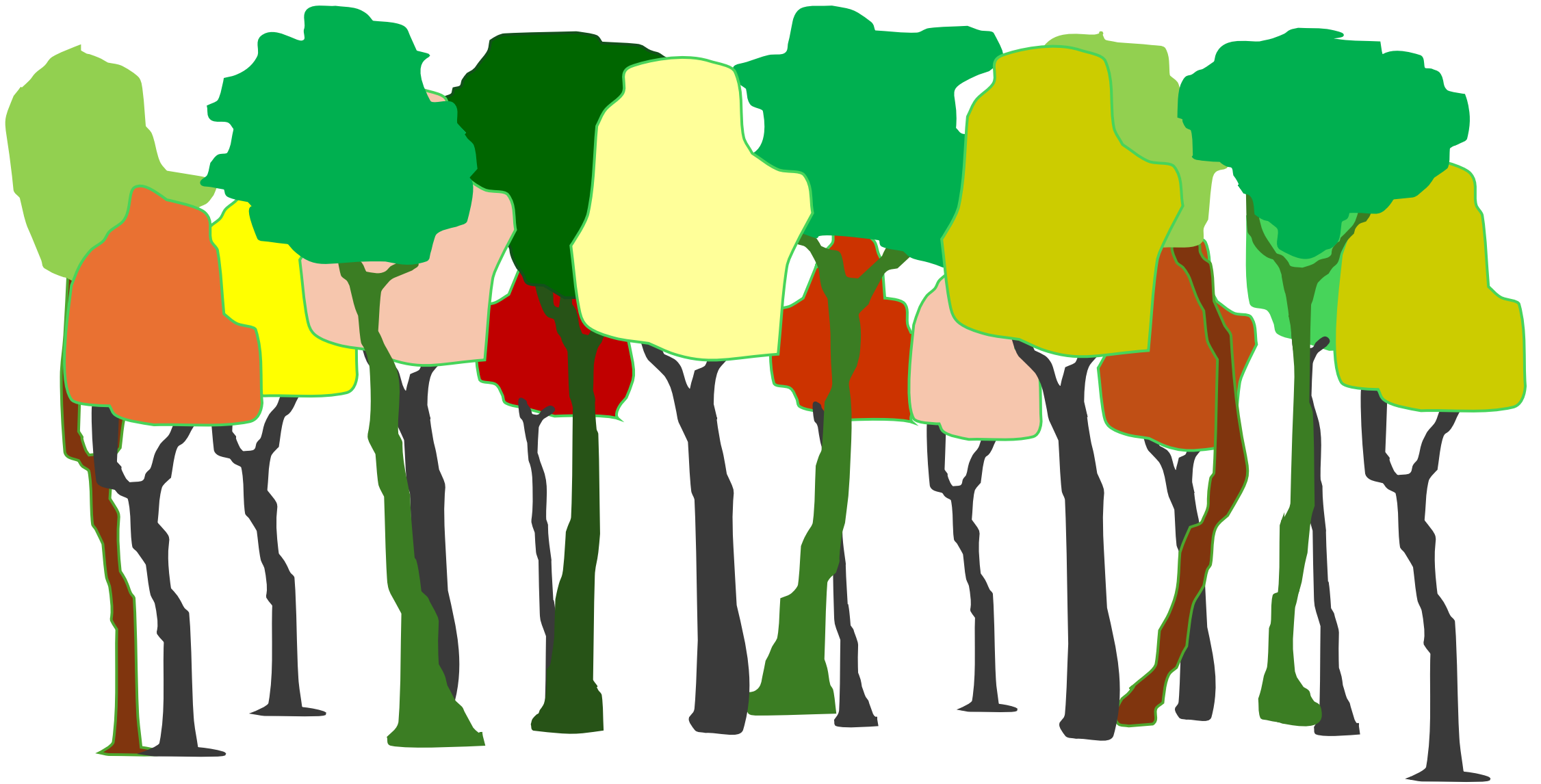
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EAB, spongy moth, diameter limit.



Repositioning of crown classes can be anticipated (mesophication)



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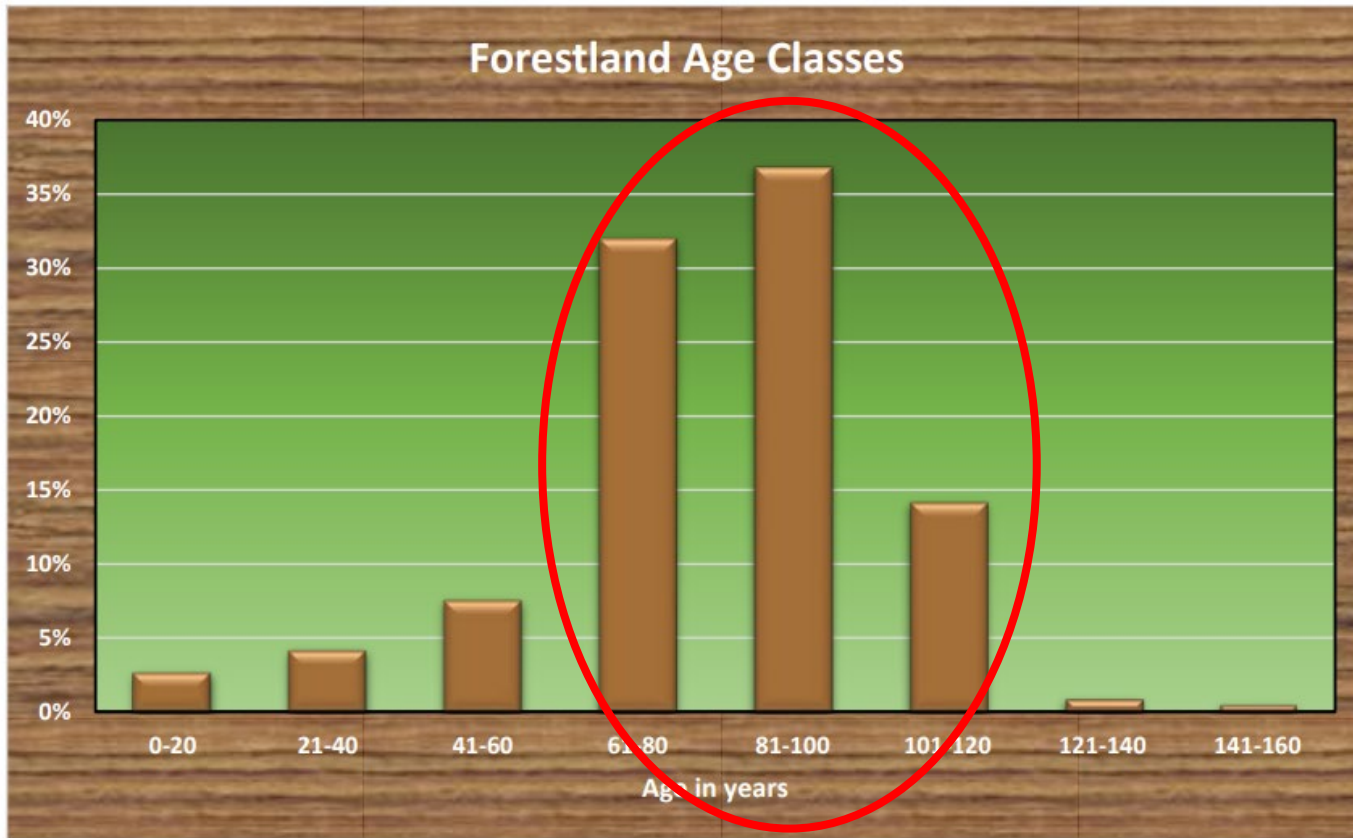


Figure 4 – Estimated Forestland Age Classes by percentage of all forestland (USDA Forest Service, 2019).

Age Structure

USDA Forest Service FIA/ CT Forest Action Plan

Composition

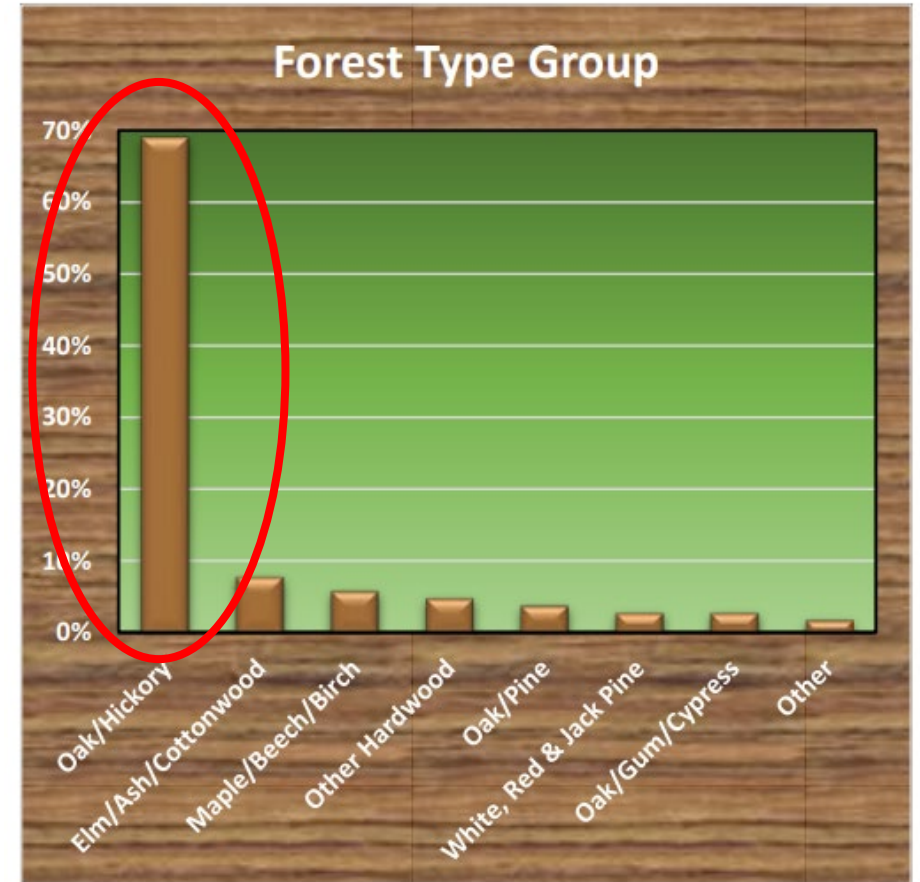


Figure 2 - Connecticut's Forest Type Groups (USDA Forest Service, 2019).

Top Ten Species by Volume (million ft ³)		Top Ten Species by # of Trees (millions)	
Red maple	948	Red maple	189
Northern red oak	683	Black birch	98
Black oak	411	American beech	57
Eastern white pine	343	Sugar maple	52
Black birch	343	Eastern hemlock	42
White oak	279	Eastern white pine	40
Eastern hemlock	229	Northern red oak	36
White ash	211	American hornbeam	29
Sugar maple	196	Yellow birch	22
Scarlet oak	156	White oak	21

5 cu ft/tree

19 cu ft/tree

Figure 3 - Top ten tree species by volume and number of trees (USDA Forest Service, 2019).



- **A Few Words About Carbon...**
- If there is too much carbon dioxide in the atmosphere, the **ONLY** practical way of removing it is to grow big green things as fast, as long, and in all the places we can.
- Then store that carbon in some creative, long-term way and start the process again.
- Carbon can be stored in all kinds of ways.
- Enhancing **sequestration rate** is most critical.

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Resiliency = age class, structural, and species diversity



Threats and Forest Health Issues:

Insects
Diseases
Invasive plants
Trajectory





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