

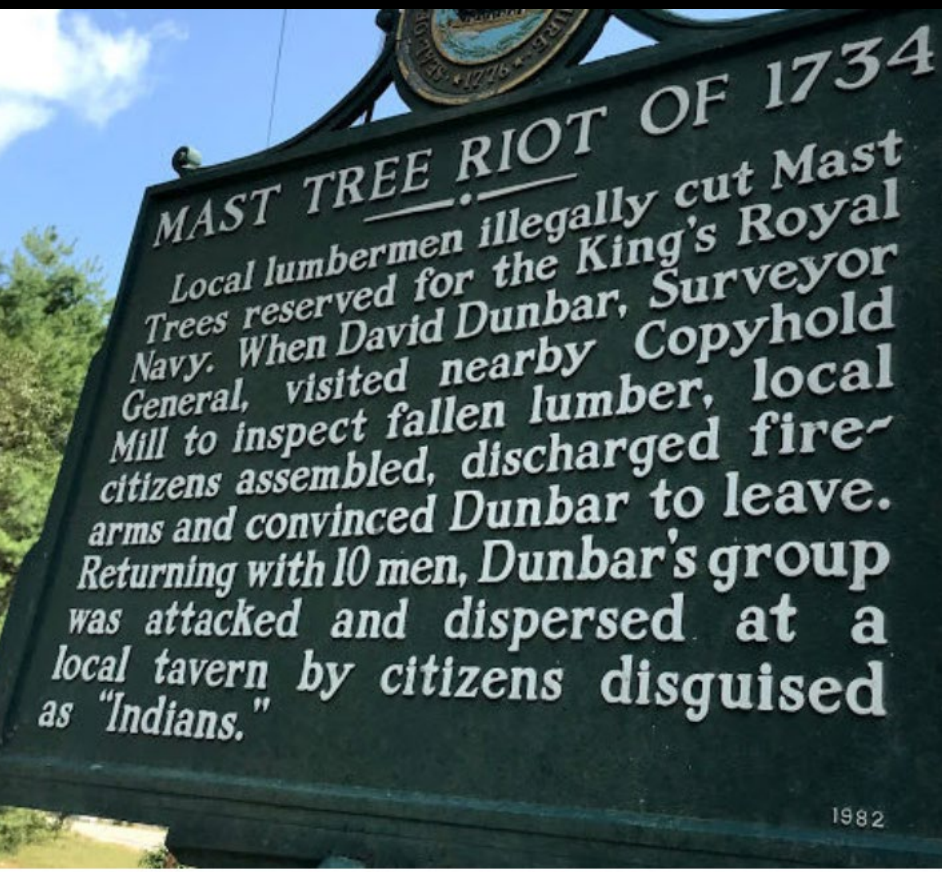
White Pine in New Hampshire

Karen P. Bennett, extension forester emeritus

Steven S. Roberge, extension forester



New Hampshire—The White Pine State



250th Anniversary Pine Tree Riot

WEARE, NH

Be Part of History!

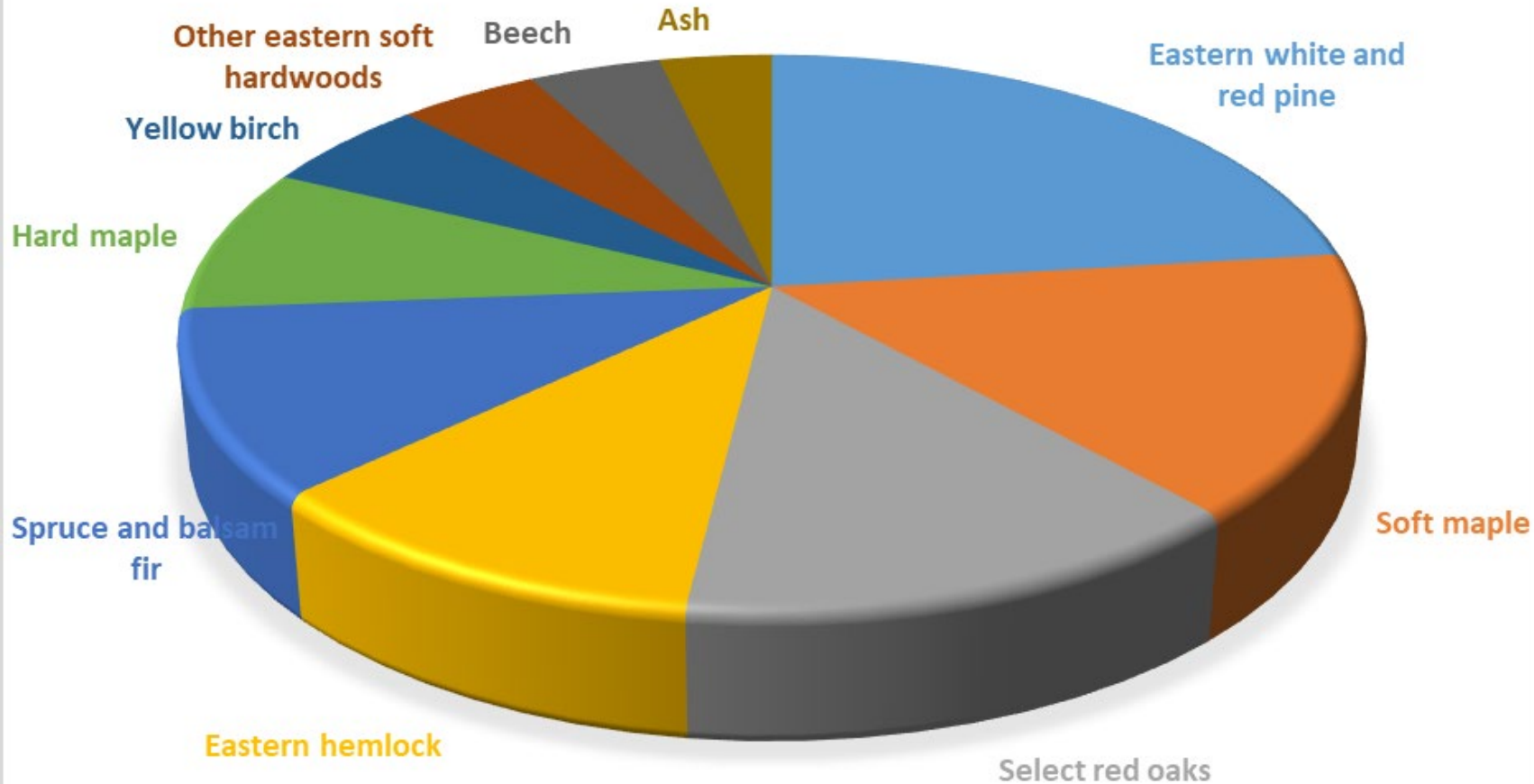
Weare Historical Society



Extension

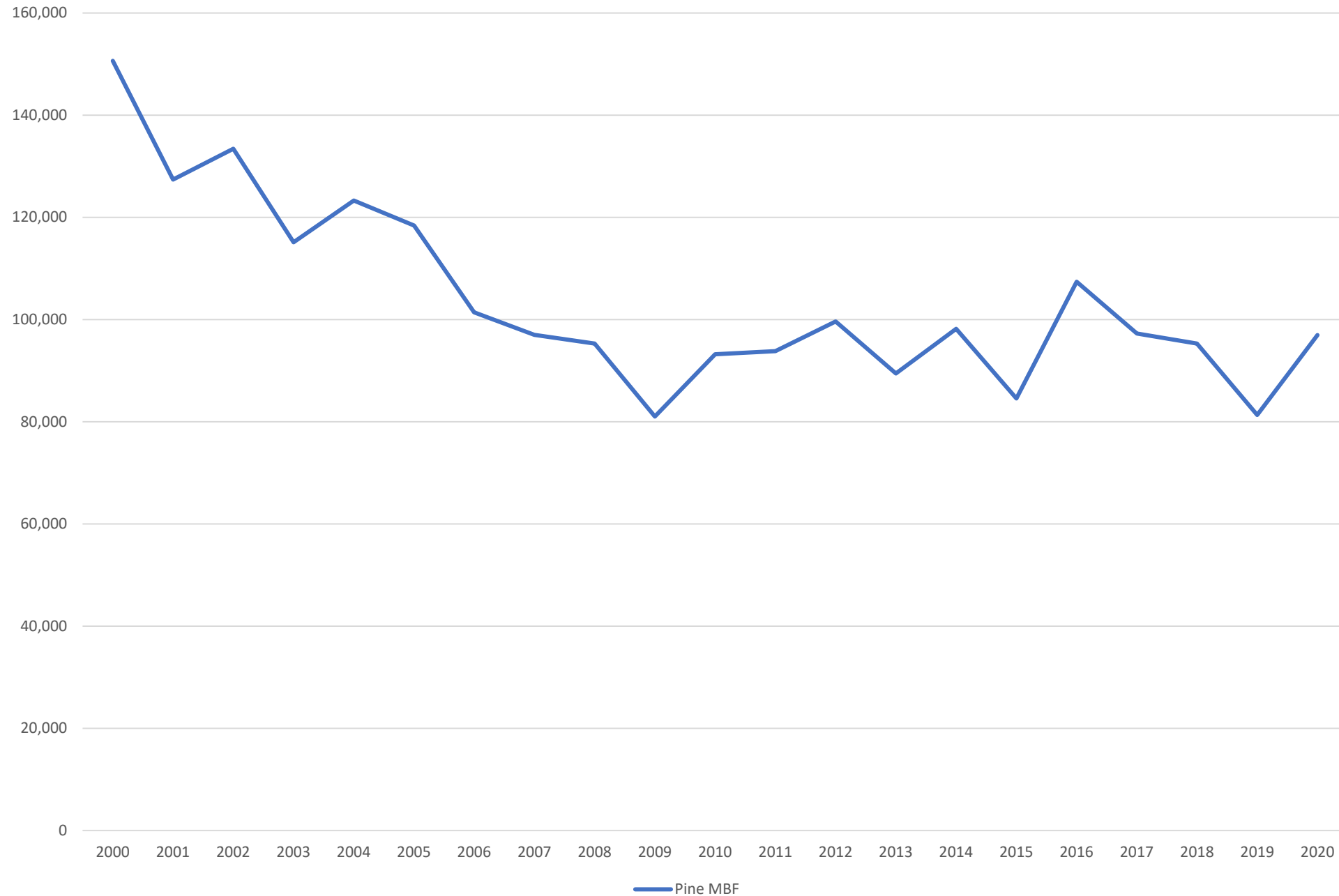
Important to the forest economy

10 TOP TREE SPECIES BY VOLUME - NH 2019



From: *NE Wood Markets Retention & New Market Recruitment Initiative for NH, NY, VT* produced by the NEFA for Northern Forest Center, U.S. Dept. of Commerce Economic Development Administrations & U.S. Endowment for Forestry & Communities, 2021
Charlie Levesque, INRS LLC

White Pine Harvest Volumes Tax Years 2000-2020



Thanks to: NH DRA, NH
DFL & INRS LLC and Andy
Fast, UNH Cooperative
Extension

FIA data

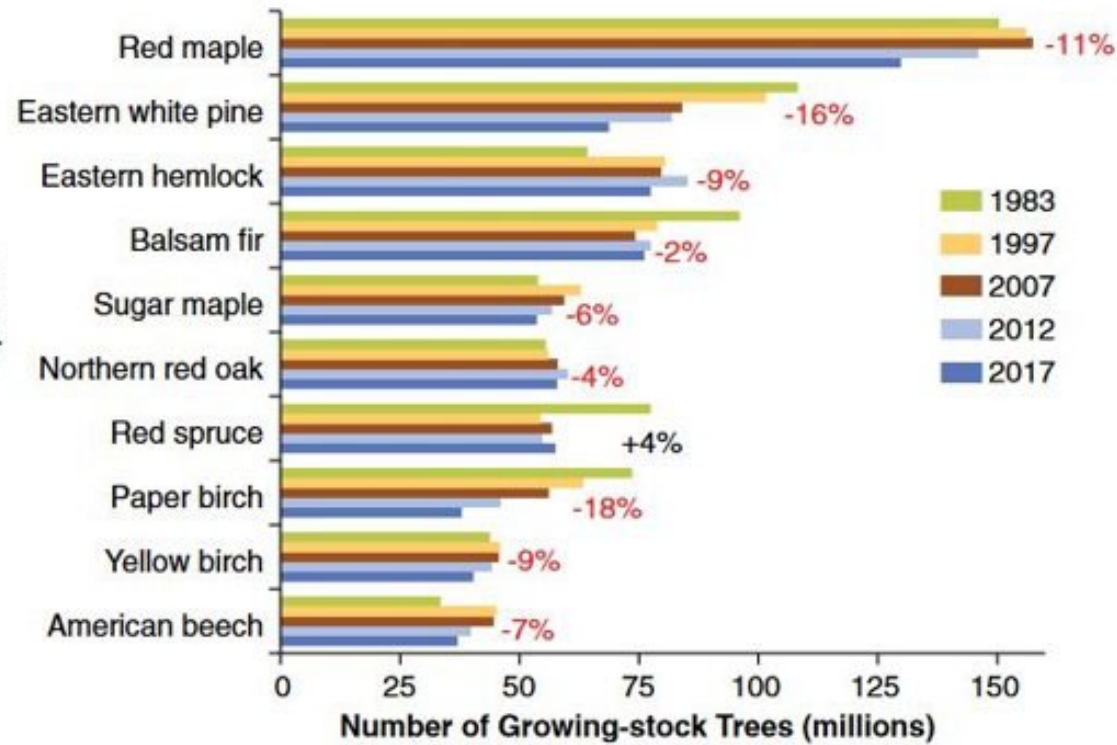


Figure 23.— Number of growing-stock trees on timberland by species and inventory year, New Hampshire. Percentages indicate change from 2012 to 2017.

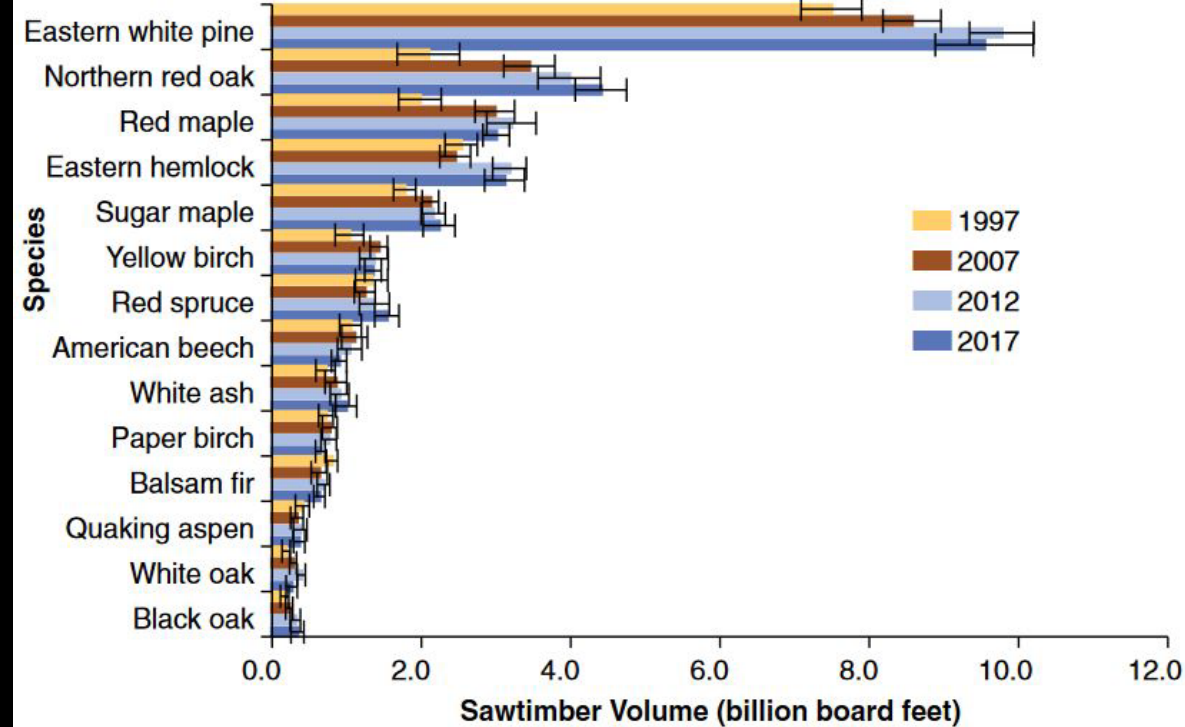
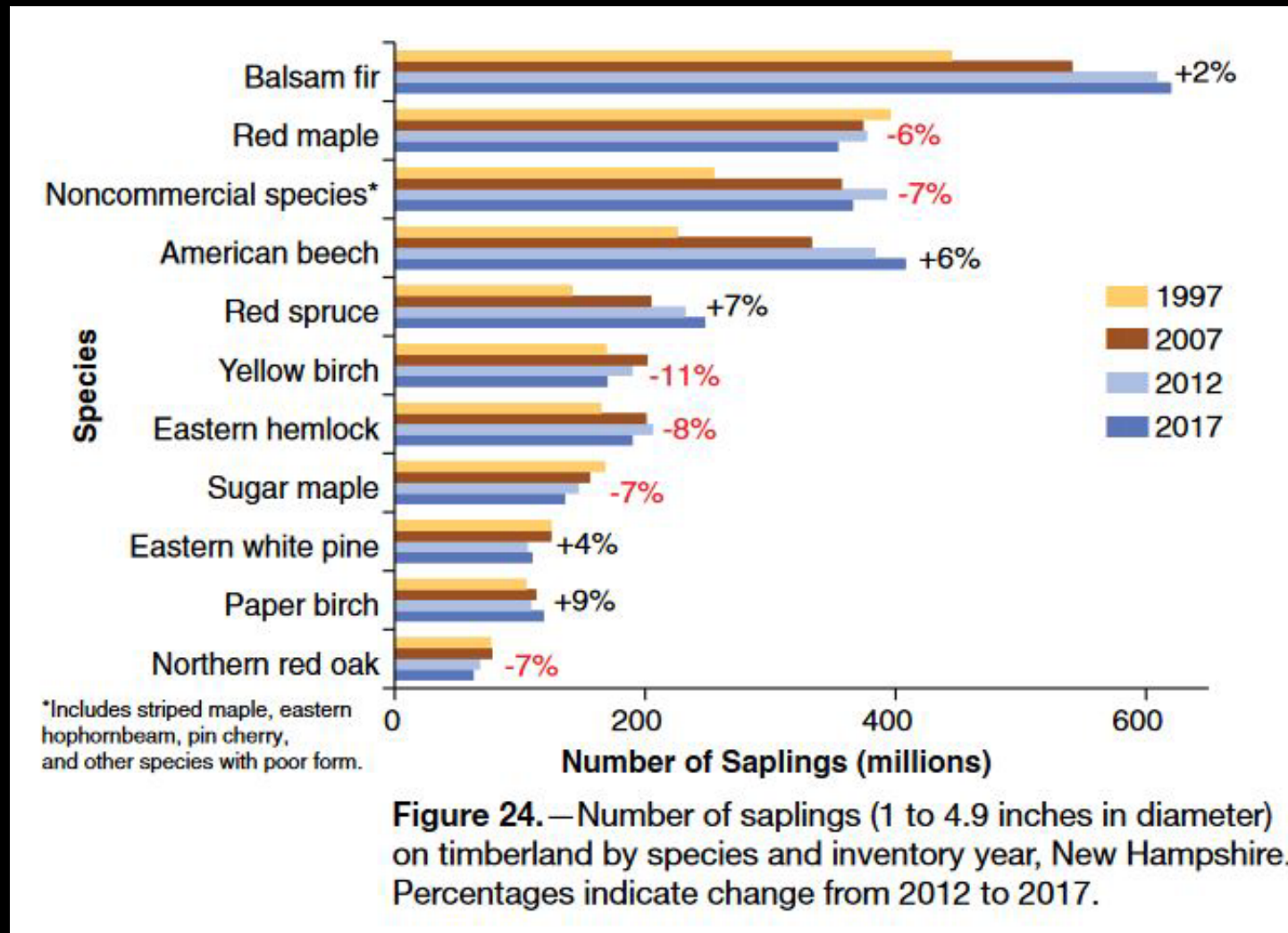


Figure 36.— Board-foot volume of sawtimber on timberland by species and inventory year, New Hampshire. Error bars represent a 68 percent confidence interval around the mean.

FIA data



More FIA data

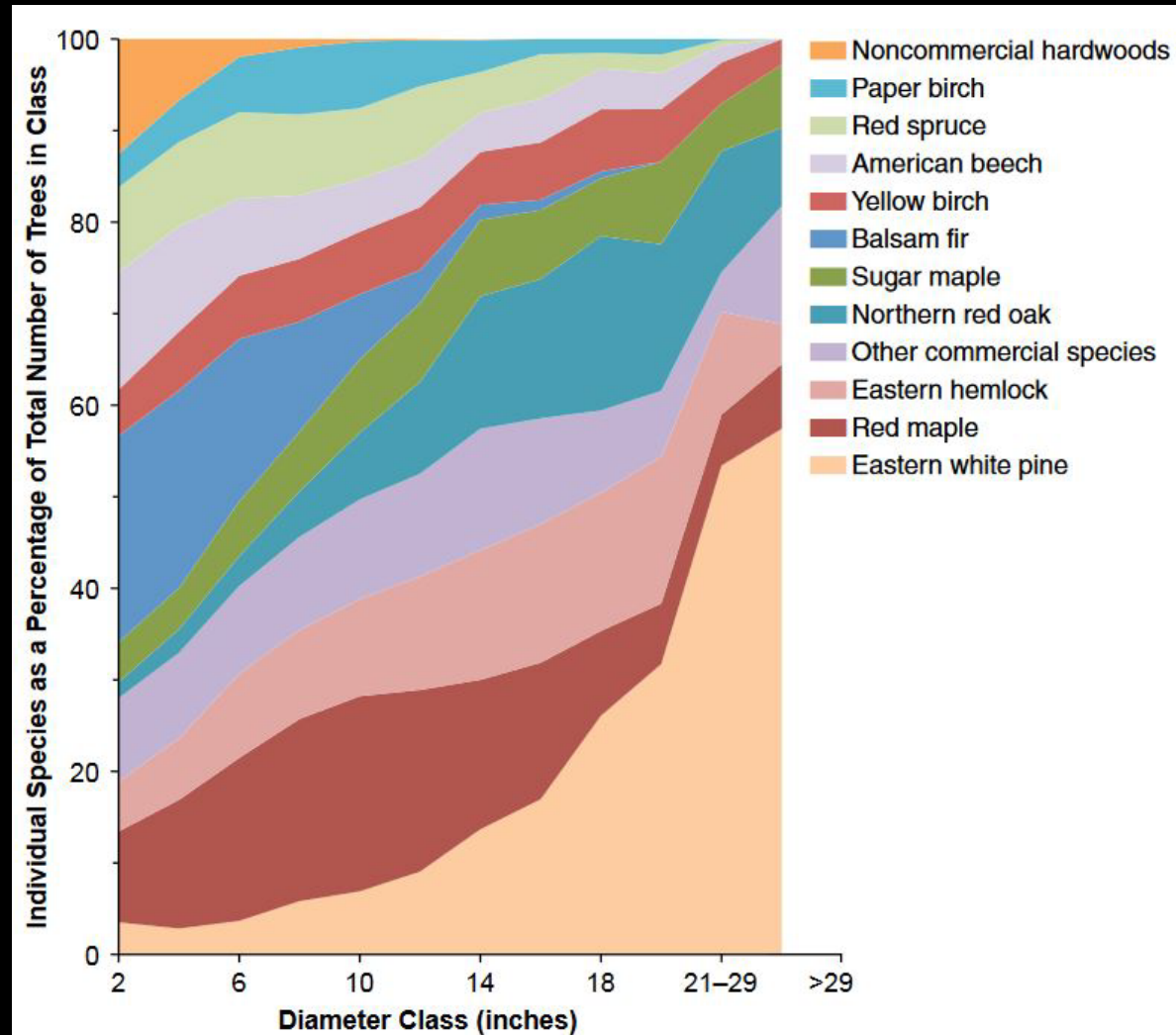
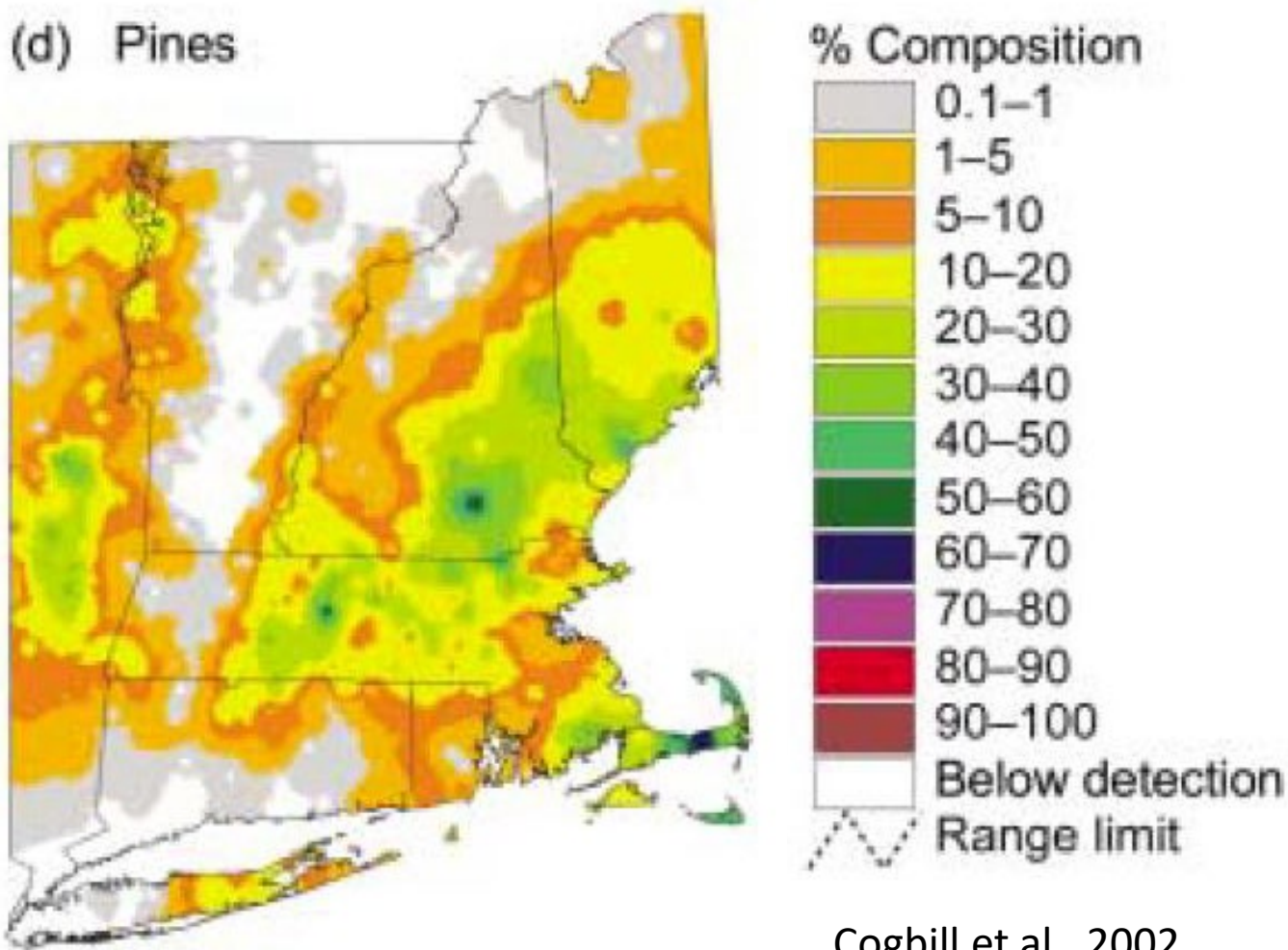


Figure 45.—Species composition by diameter class on forest land, New Hampshire, 2017.

Pine historically

(d) Pines

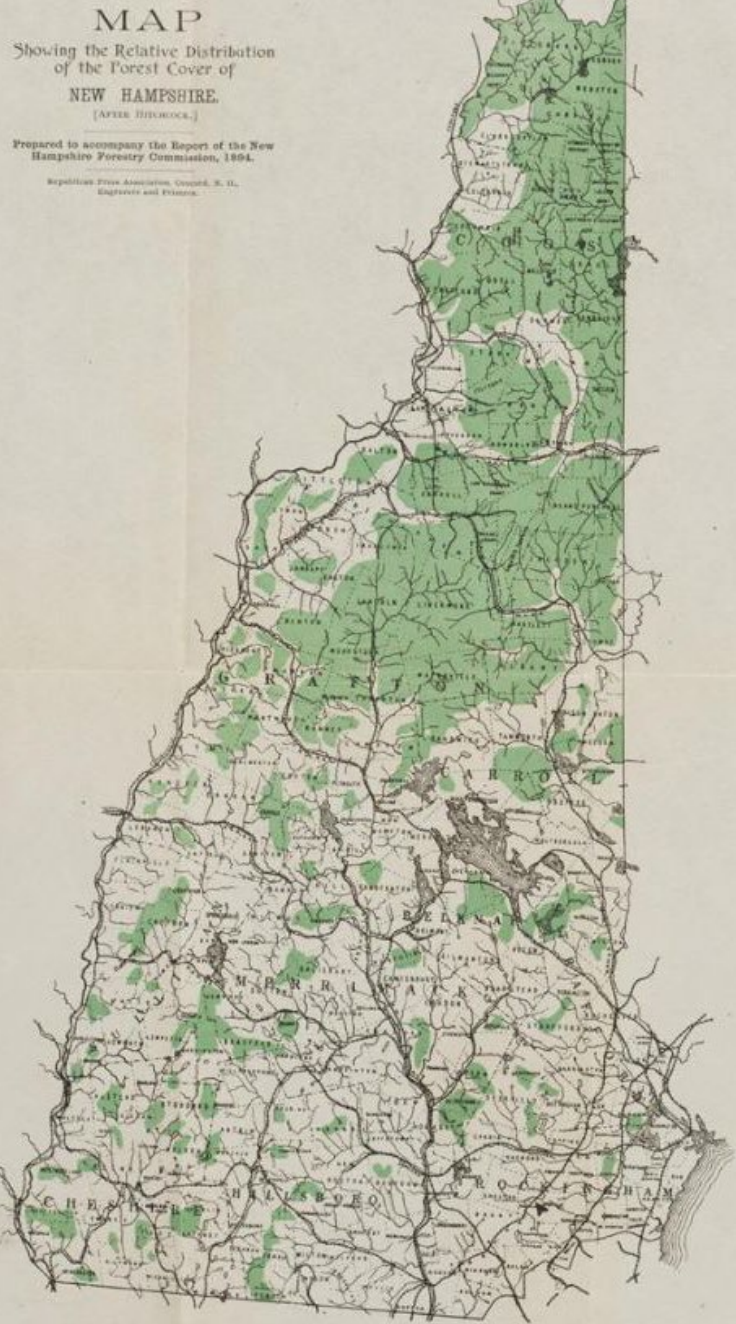


Cogbill et al., 2002

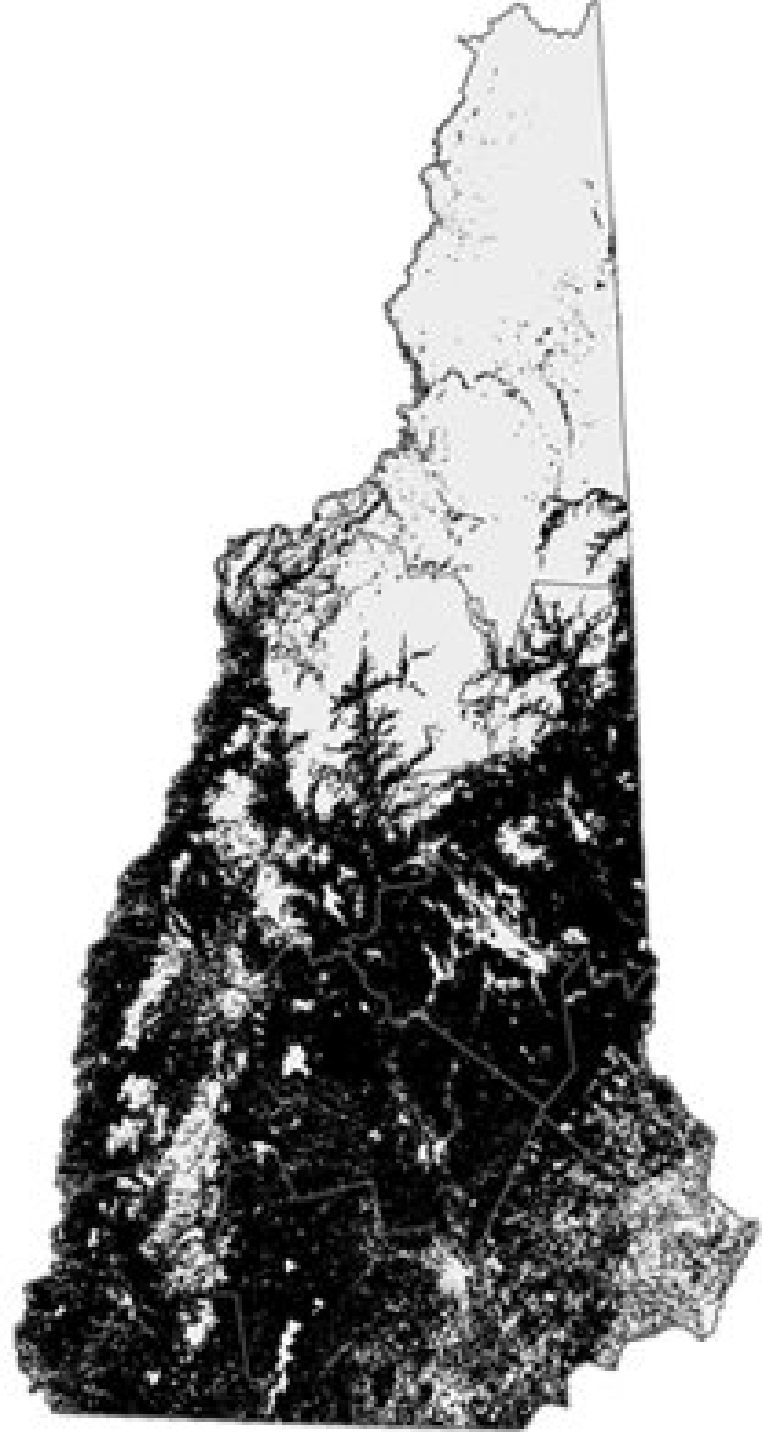
Pinus Strobus, L.

White Pine. The largest, most useful, and having the greatest range of distribution of our conifers, being everywhere common, from the sea to 2,500 feet altitude. Originally two great belts occupied the valleys of the Merrimack and Connecticut, which contained some of the finest timber in New England; but this magnificent forest has long since disappeared, a few scattered remnants only remaining. Specimens have been known which were more than two hundred feet high and six or eight feet in diameter. The white pine seeds very freely, and the site of the ancient forest is indicated by tracts of vigorous saplings which in twenty or thirty years are good to cut for pail and fish-barrel staves, laths,

Report of the NH Forestry Commission, 1894

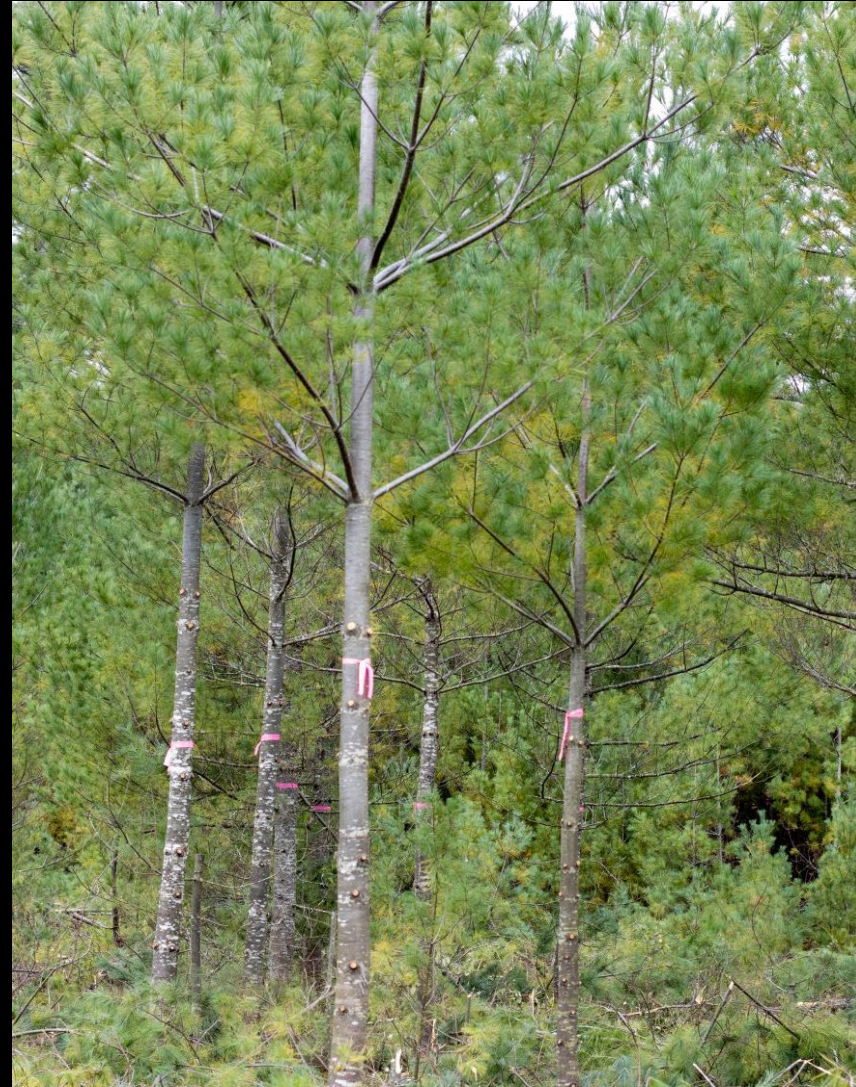


Report of the
NH Forestry
Commission,
1894



NH Wildlife
Action Plan,
2015

Soils

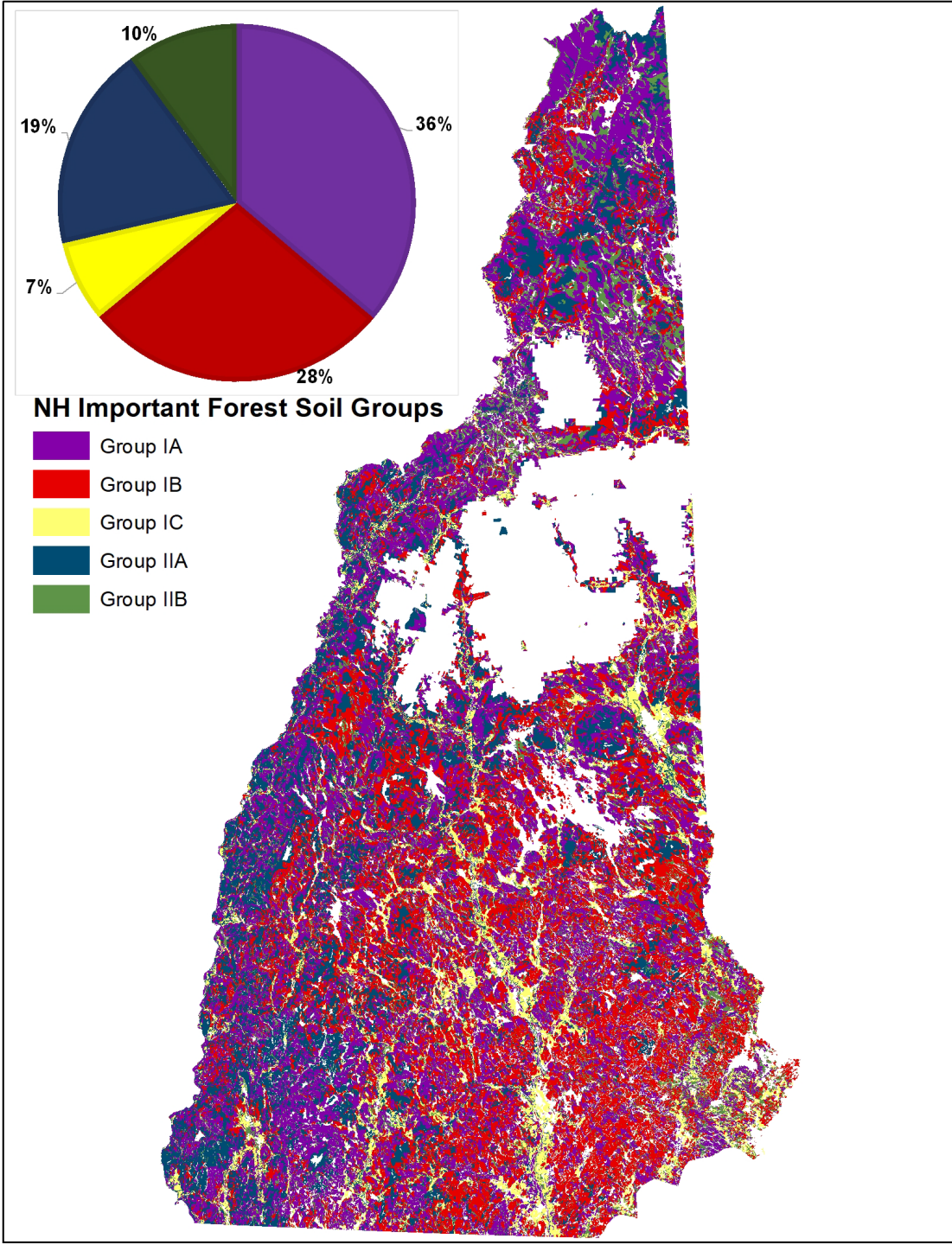


NH Important Forest Soil Groups

Group IC

- Glacial Outwash Sand & Gravel
- Excessively Drained
- Coarse Textured
- Nutrient and Moisture Limitations

- Soil data does not include the WMNF
~740,000 acres.



Agricultural legacy = Off-site legacy

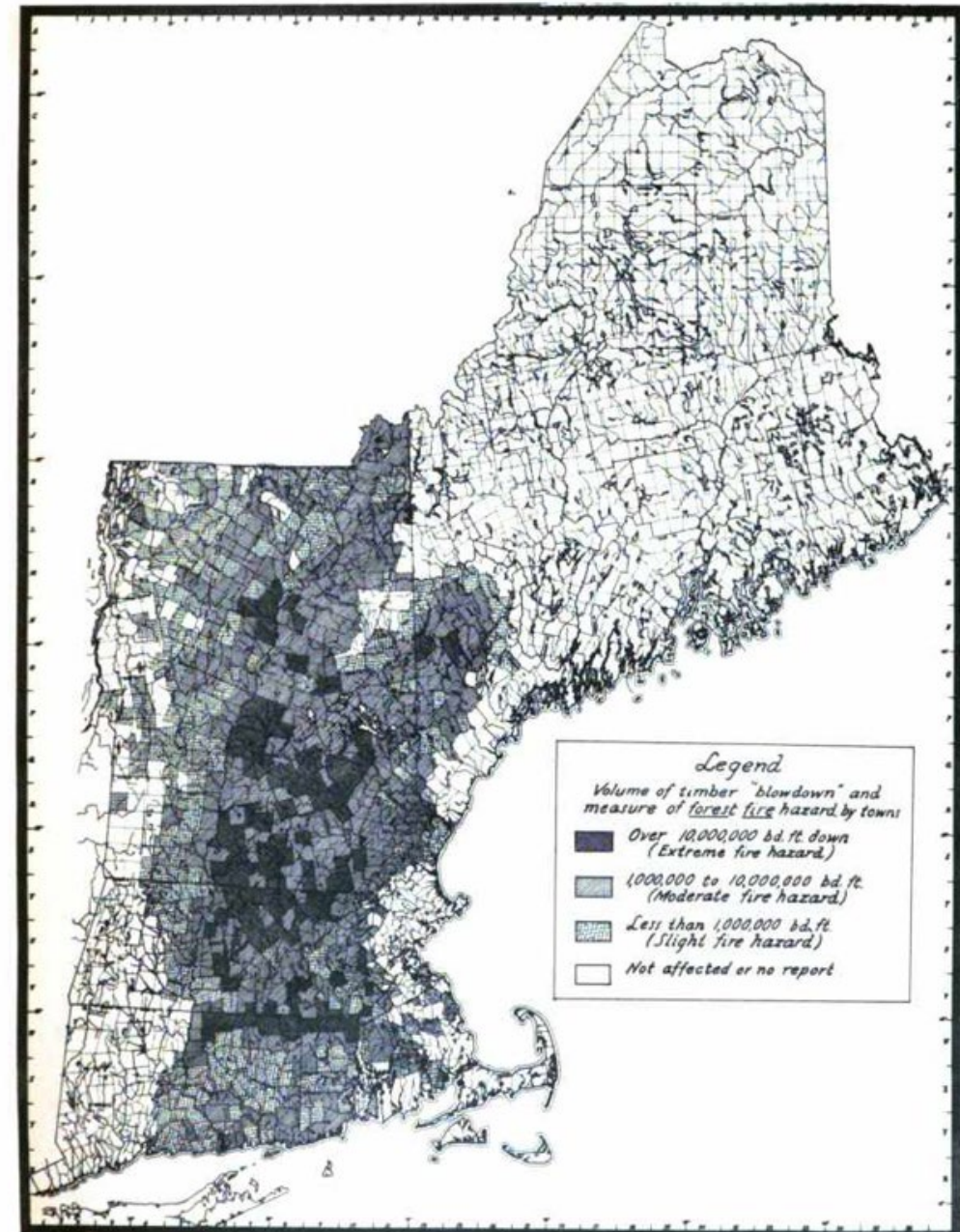


Off-site legacy poses management challenges

- Invasives
- Hardwood regeneration
- Physical site limitations from wetter soils
 - Limit scarification
 - Logistical issues with logging
- Increased risk from wind and other stressors (e.g., root damage during logging on wet soils)

"BLOWDOWN" TIMBER AND FOREST FIRE HAZARD

CAUSED BY THE SEPT. 1938 HURRICANE



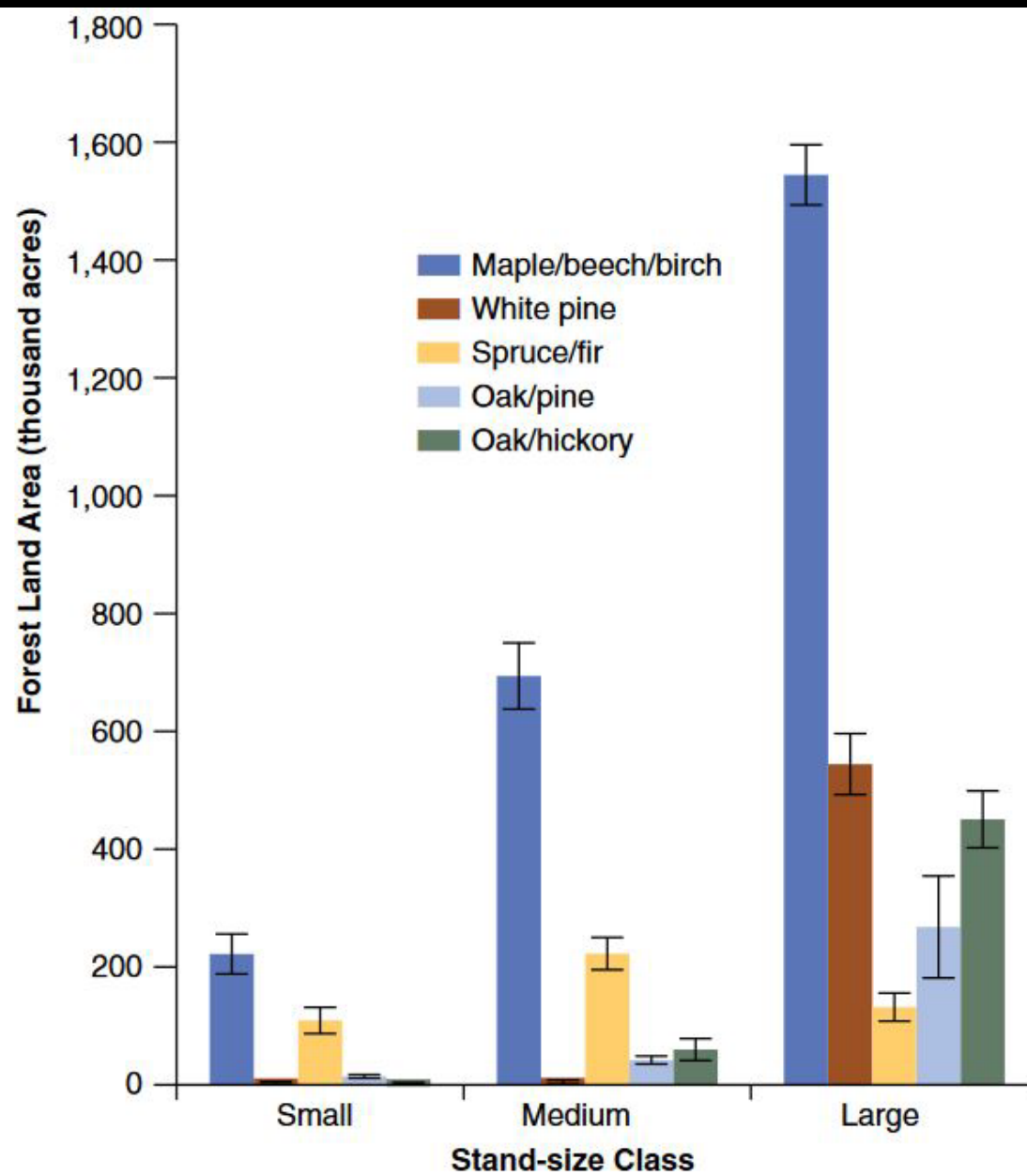
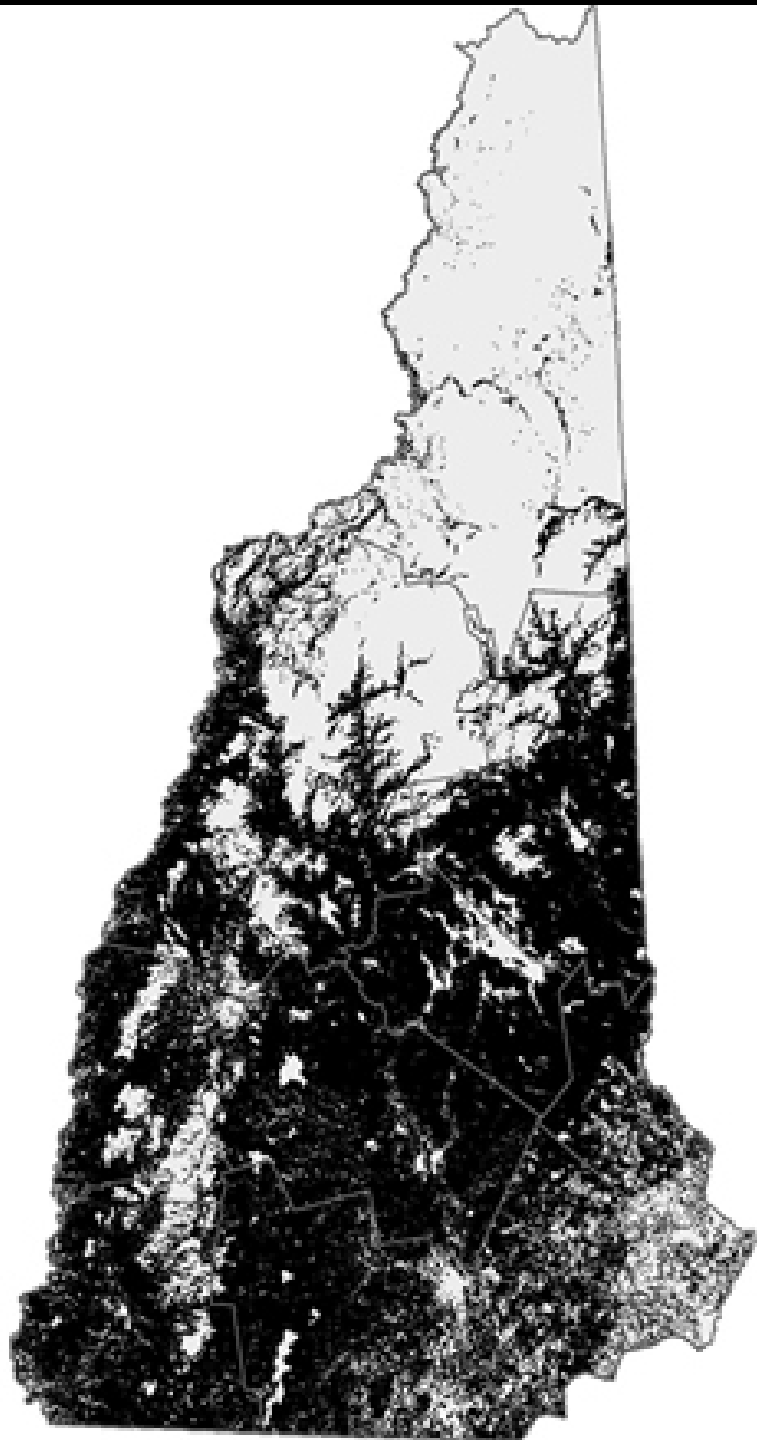


Figure 4.—Area of forest land for the five most abundant forest-type groups by stand-size class, New Hampshire, 2017. Error bars represent a 68 percent confidence interval around the mean.



369660



Extension

Expectations

- Losing pure pine stands and that's ok
- Closer to what we would have naturally
- A few well-tended pines can add a lot of volume and value per acre
- Working with an “accidental” resource
 - won't have the same accident
 - if want to keep need silviculture



Can we keep white pine in NH

Field observations convinced me that with planning, proper timing, appropriate silviculture, and some luck, white pine can be perpetuated.
Peter Pohl, retired Carroll County Forester

- Establish regen on first commercial entry
- Time with seed year
- Scarification or advance regeneration
- Monitor height growth of regen to time release
- Denser for less weevil, minimize branching
- Low density—fast growth, low disease



Pine soils
increase chance
of successful
regeneration



Off-site legacy poses management benefits



Pine health

Needle disease

Caliciopsis

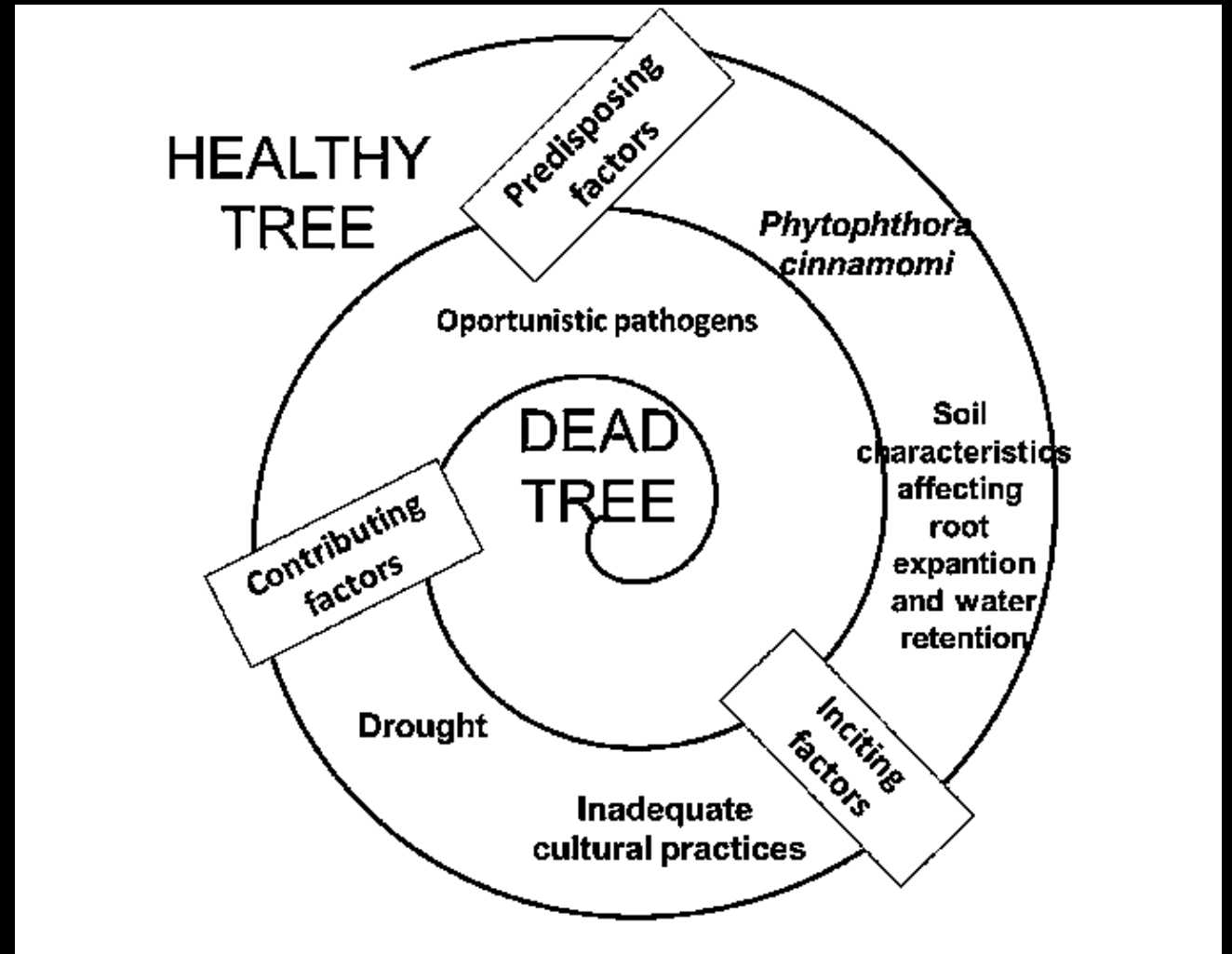
Weevil

Age

WPBR

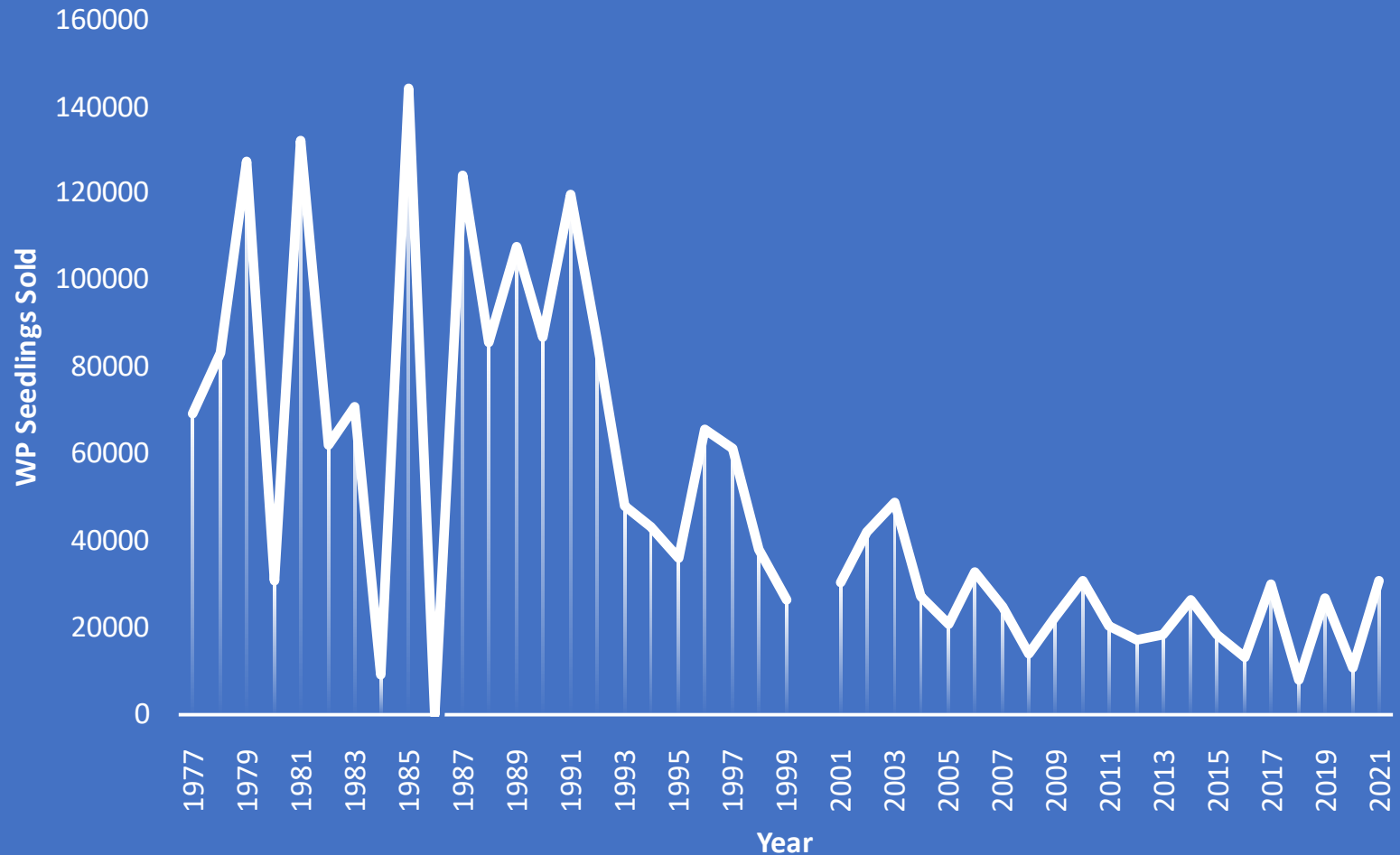
Southern pine beetle

Climate



State forest nursery grows white pine!

WP SEEDLINGS SOLD 1977 -2021



Questions? Complaints?
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Kudos?
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Thanks for listening

