

# Rhode Island's Forests: Past and Present (and People)



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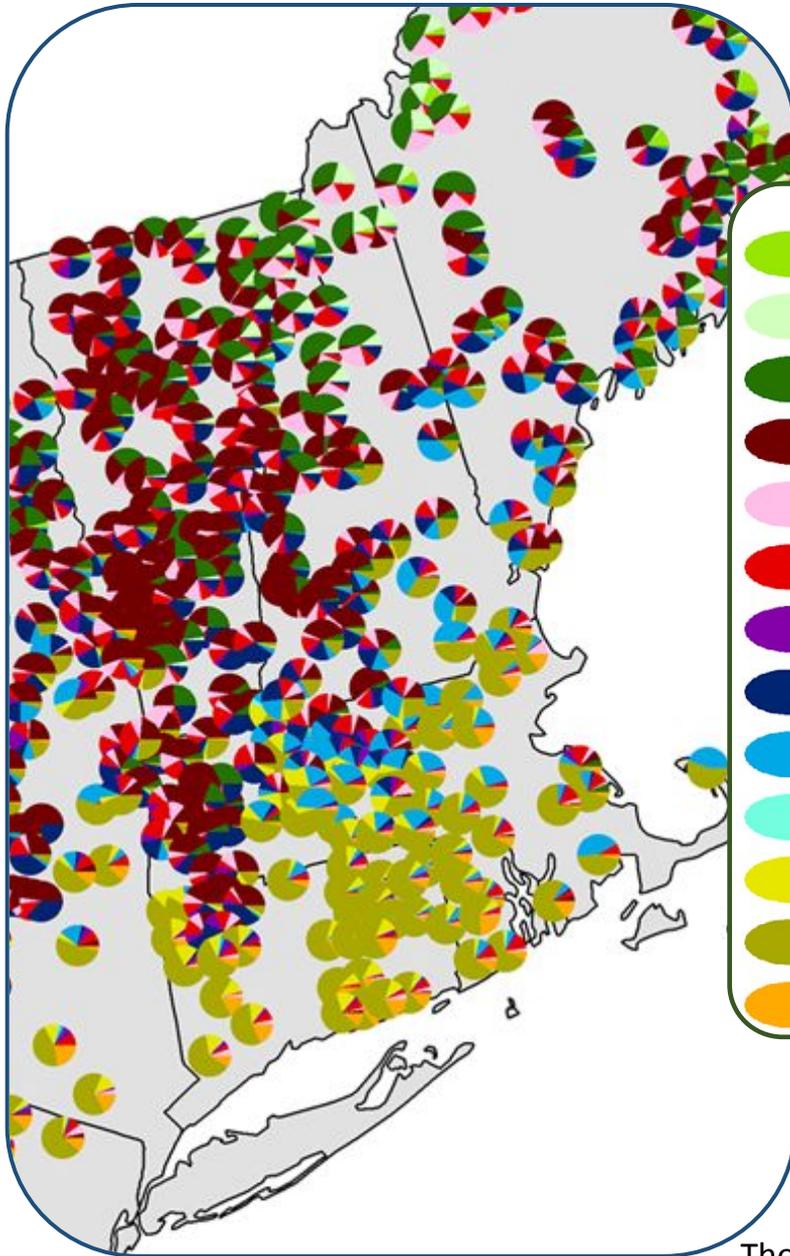




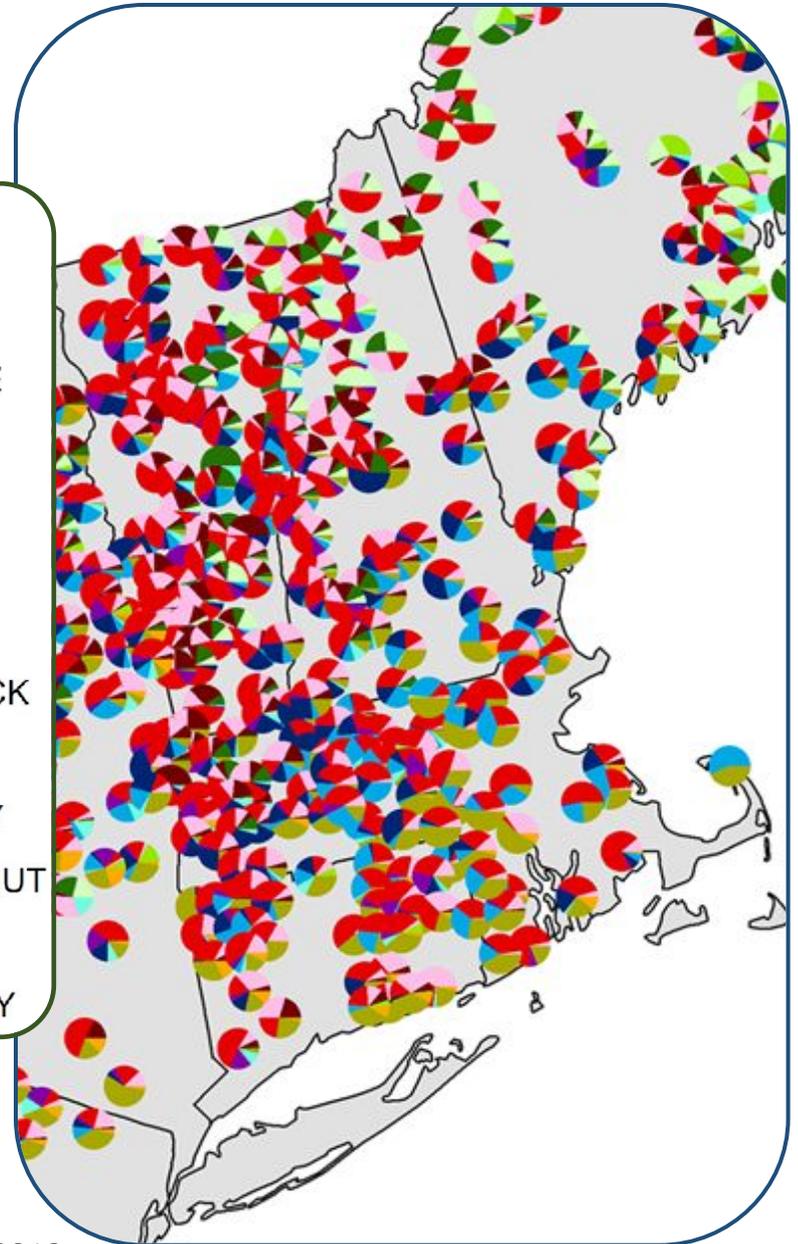


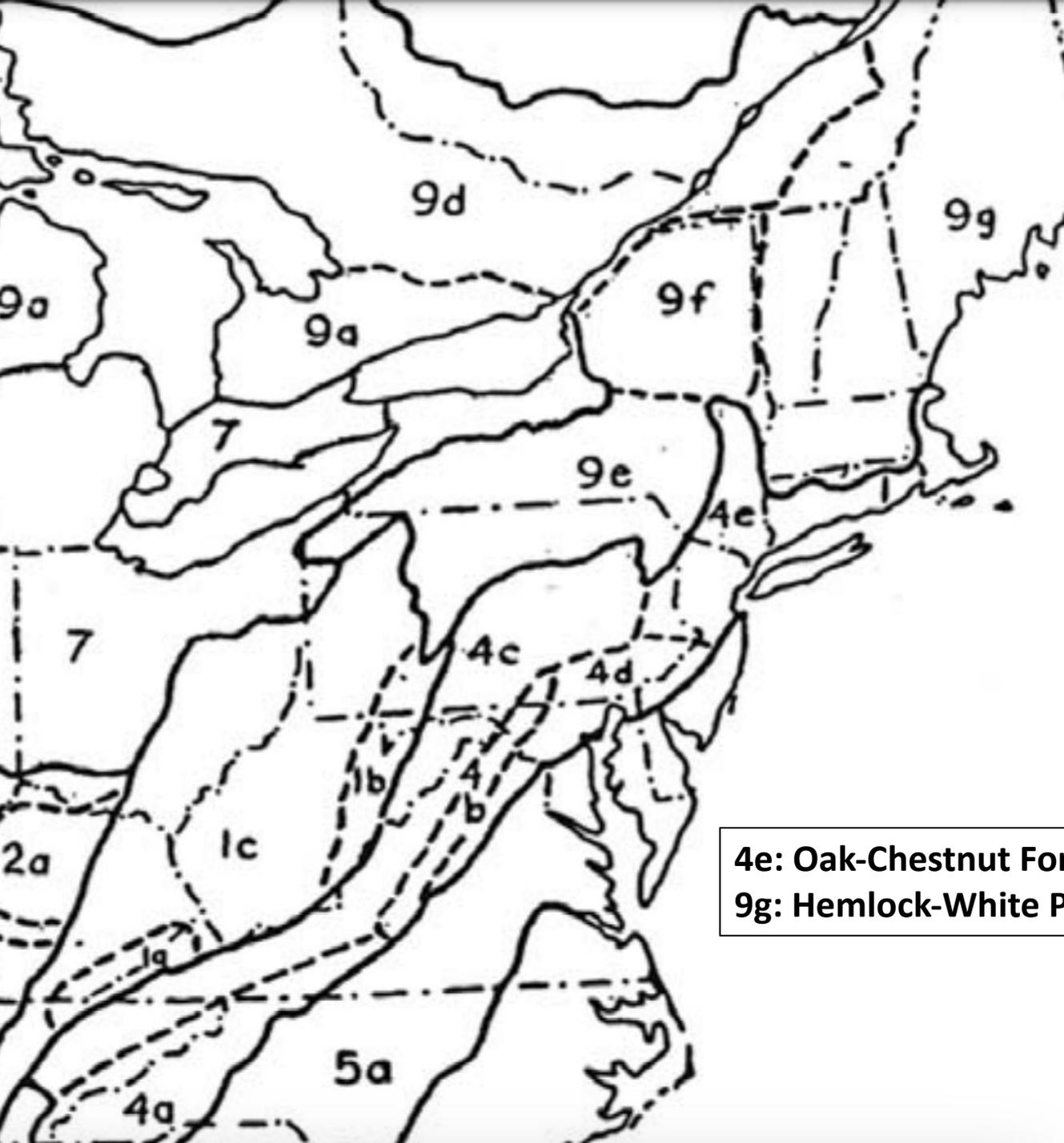


## Historic Forest

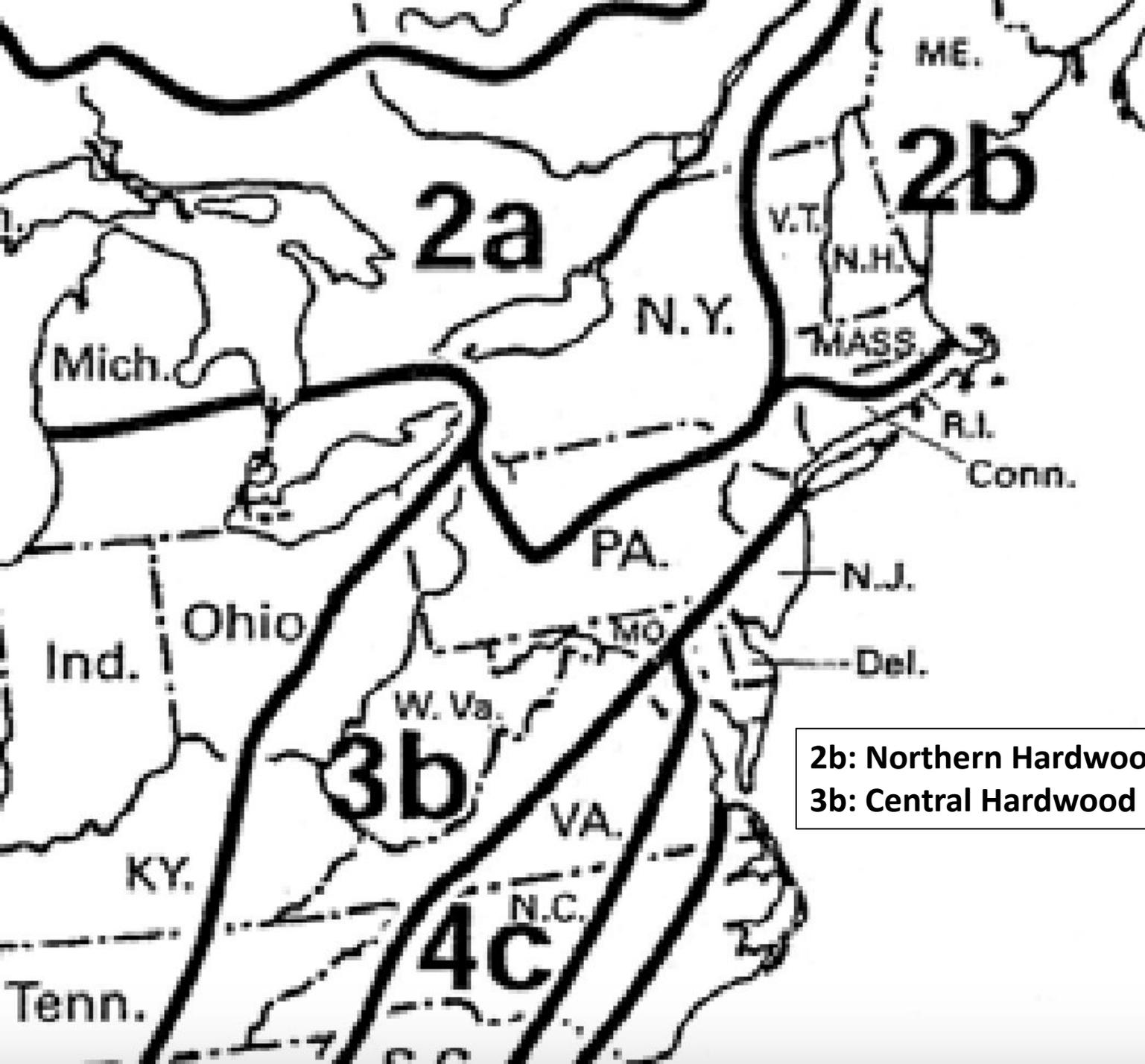


## Contemporary Forest





**4e: Oak-Chestnut Forest Region (glaciated)**  
**9g: Hemlock-White Pine-Northern Hardwoods**



**2b: Northern Hardwood-Conifer Forest**  
**3b: Central Hardwood Forest**







Illustration: Adelaide Tyrol for the VT Citizen

# Silvics, Ecology, and Forest Development

- **Silvics:** ecological characteristics of each tree species (how a species grows and what it requires to thrive)
  - Soil: moisture, nutrients, depth, structure
  - Sunlight: tolerance of shade/competition (just like garden plants!)
  - Growth: rate, form, habit, height, etc.
  - Regeneration: seed distribution, requirements for germination, etc.



Illustration: Adelaide Tyrol for the *VT Citizen*

## **Silvics, Ecology, and Forest Development**

- Forest Development is driven by two phenomena:
  - Succession
  - Disturbance

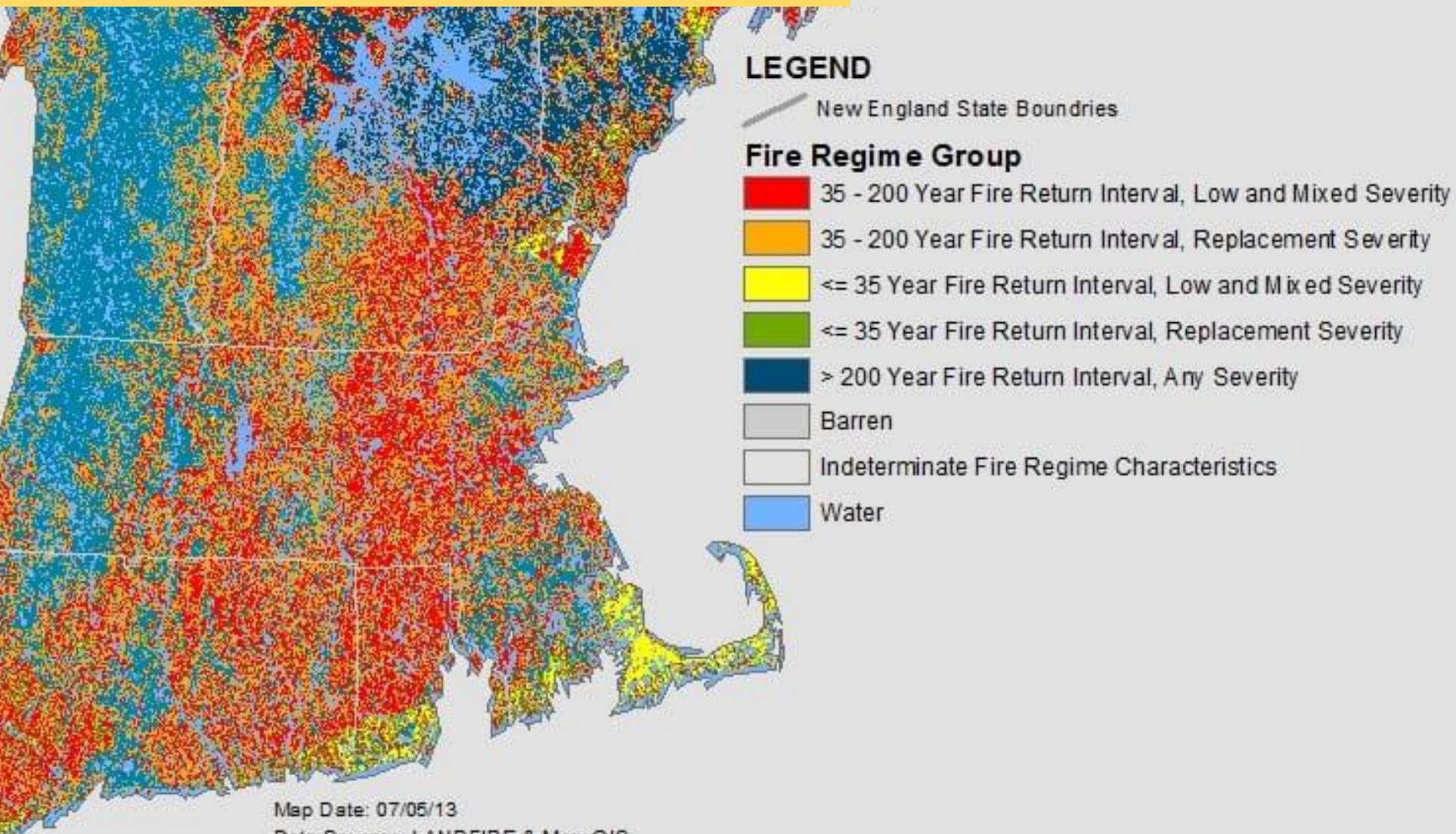


Illustration: Adelaide Tyrol for the VT Citizen

## Disturbance, Succession and Forest Development

- Severe disturbance (stand replacement)
- Early succession  scrub/shrub  **young forest**
- Intermediate succession/**intermediate forest**
- Canopy closure & **mature forest**
- **Old forest** (not necessarily **old growth** forest)

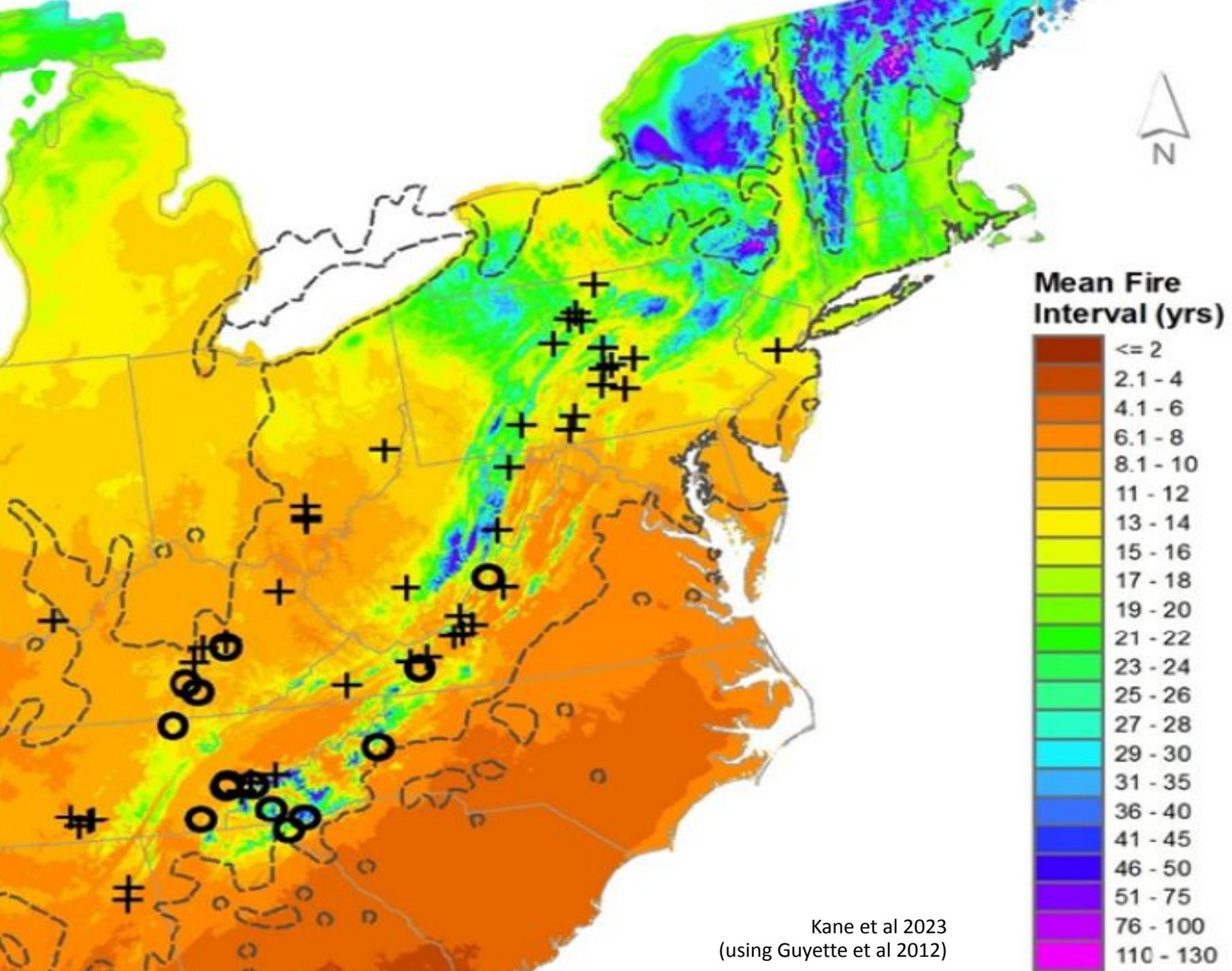
# Disturbance Regimes



Map Date: 07/05/13

Data Sources: LANDFIRE & MassGIS

Map Author: Northeast Forest and Fire Management, LLC



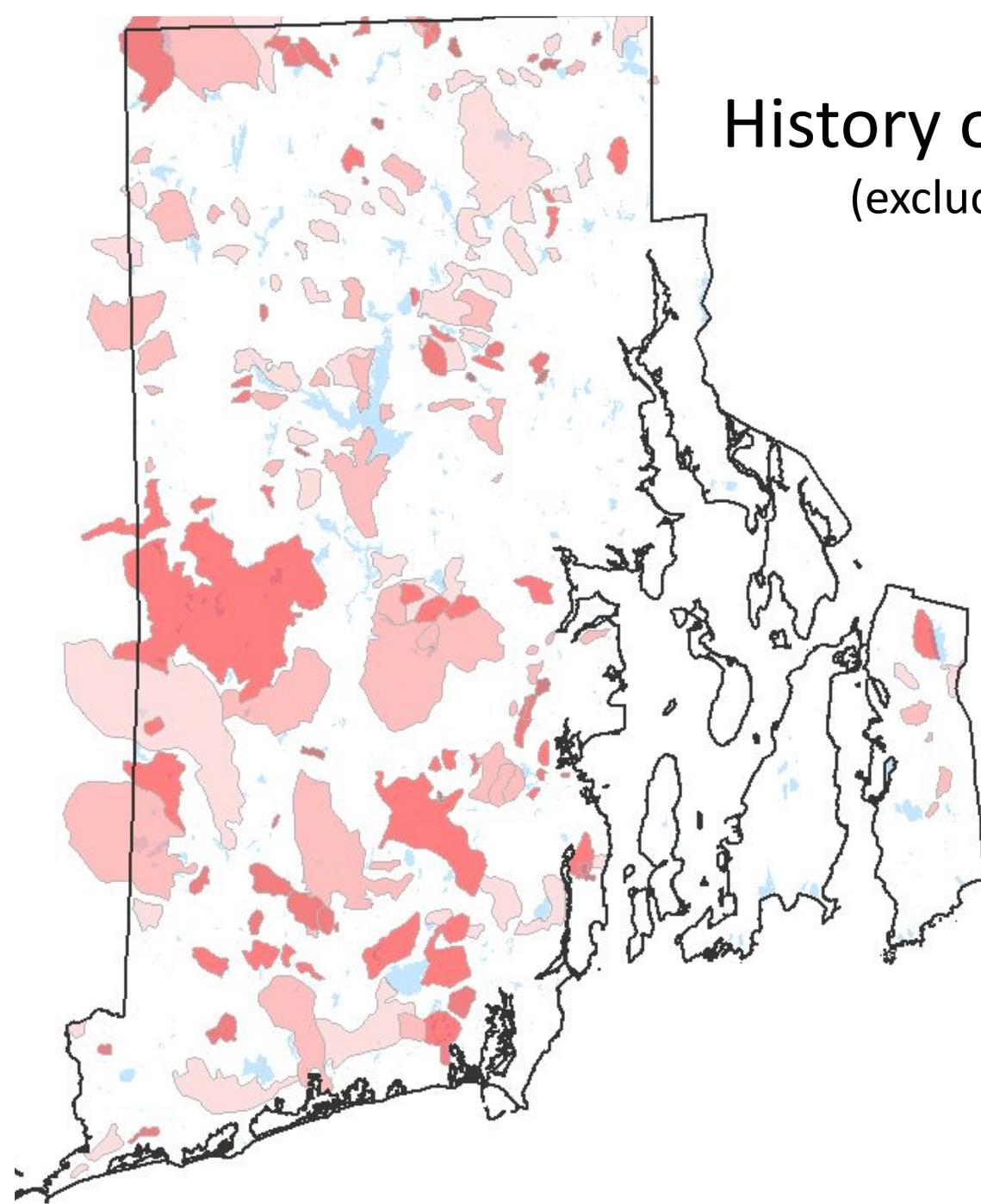
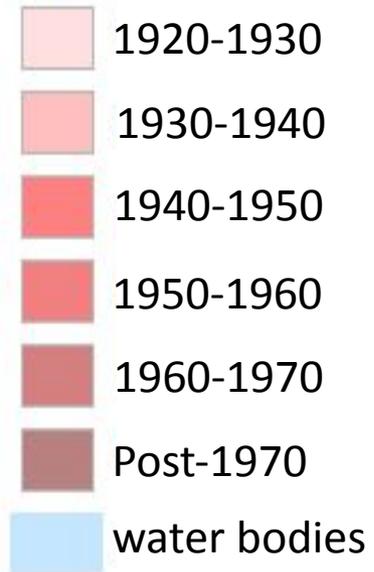




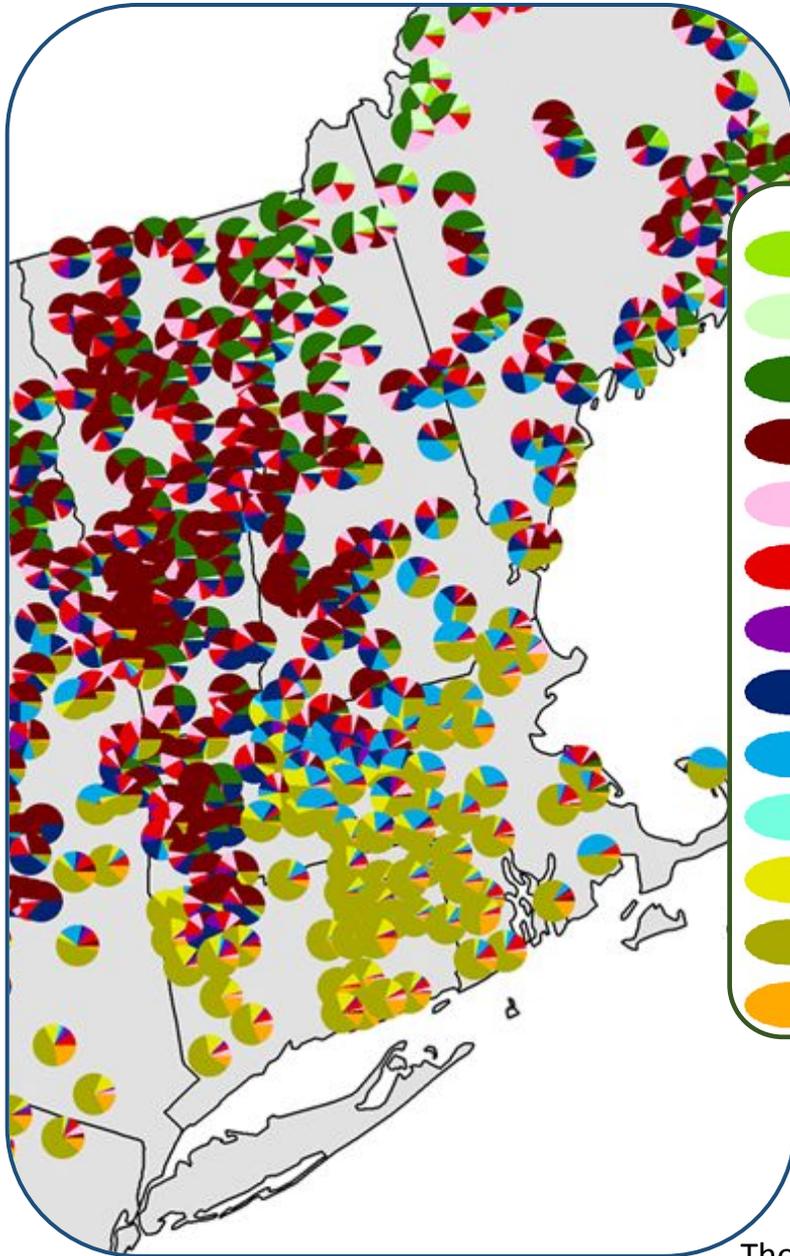
# History of Major Fires in RI

(excludes Spring 2023 fires)

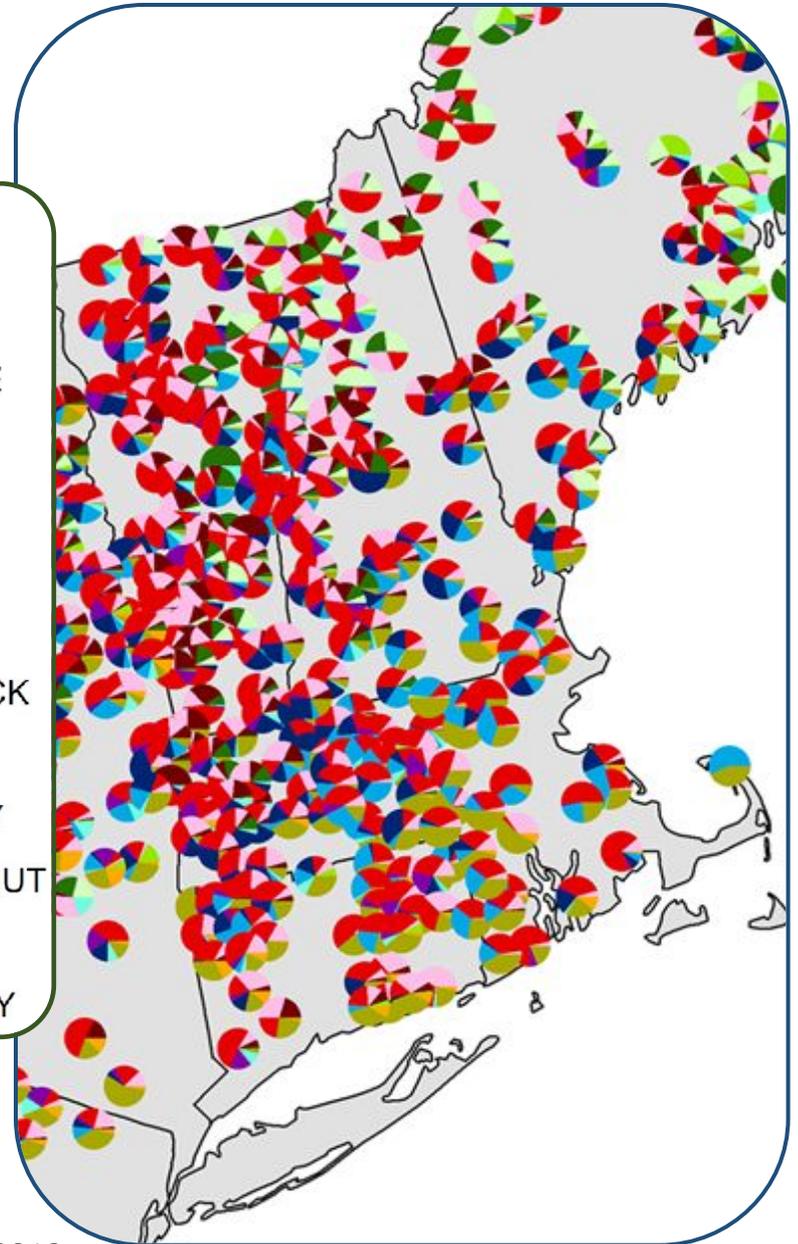
## Last Fire Occurrence



## Historic Forest



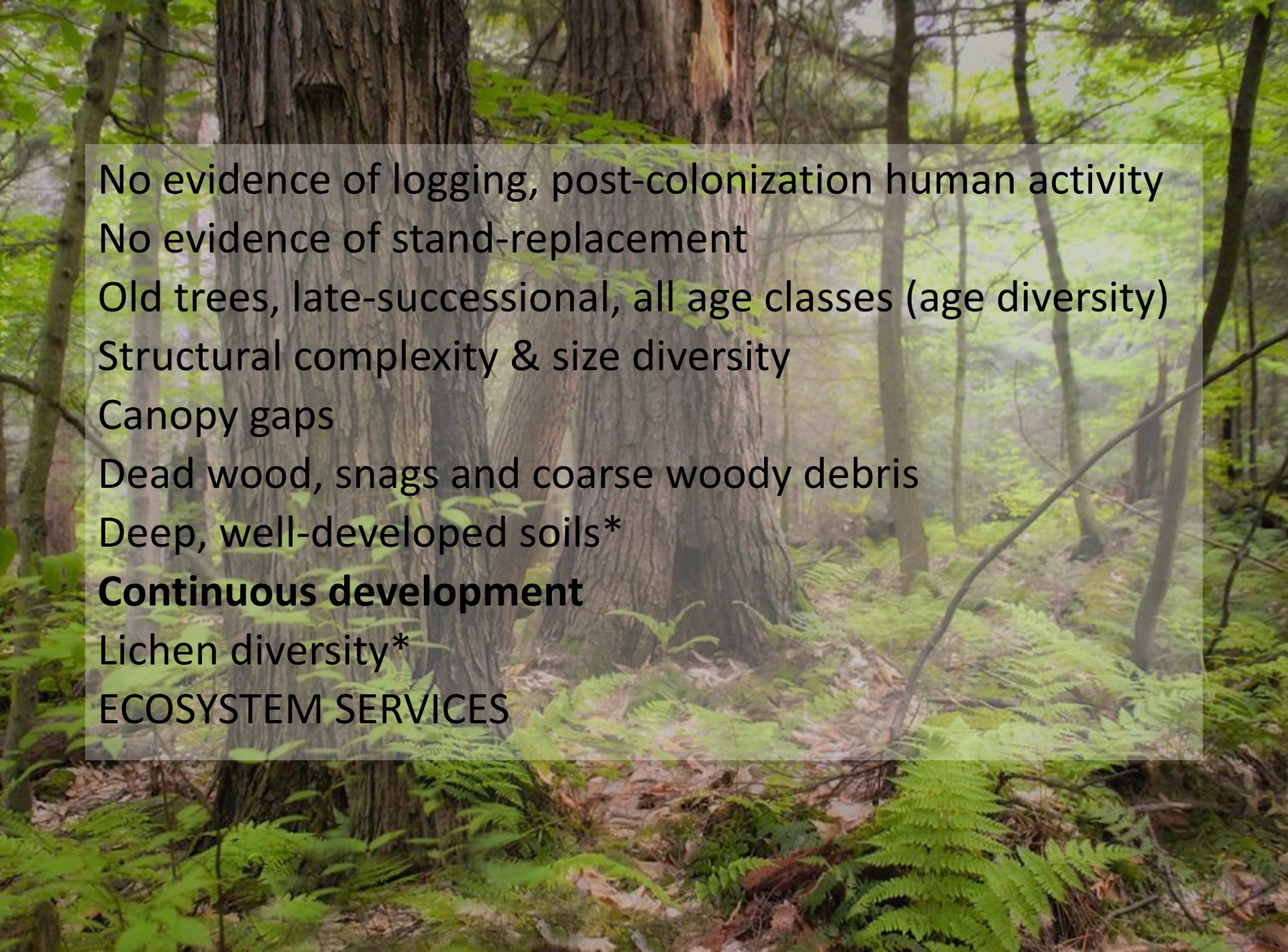
## Contemporary Forest











No evidence of logging, post-colonization human activity  
No evidence of stand-replacement  
Old trees, late-successional, all age classes (age diversity)  
Structural complexity & size diversity  
Canopy gaps  
Dead wood, snags and coarse woody debris  
Deep, well-developed soils\*  
**Continuous development**  
Lichen diversity\*  
ECOSYSTEM SERVICES

# Ecosystem services:

- Clean air & water
- Fertile, complex soils\*
- Microclimate diversity
- Wildlife habitat complexity
- Microecosystems & niches
- DECAY

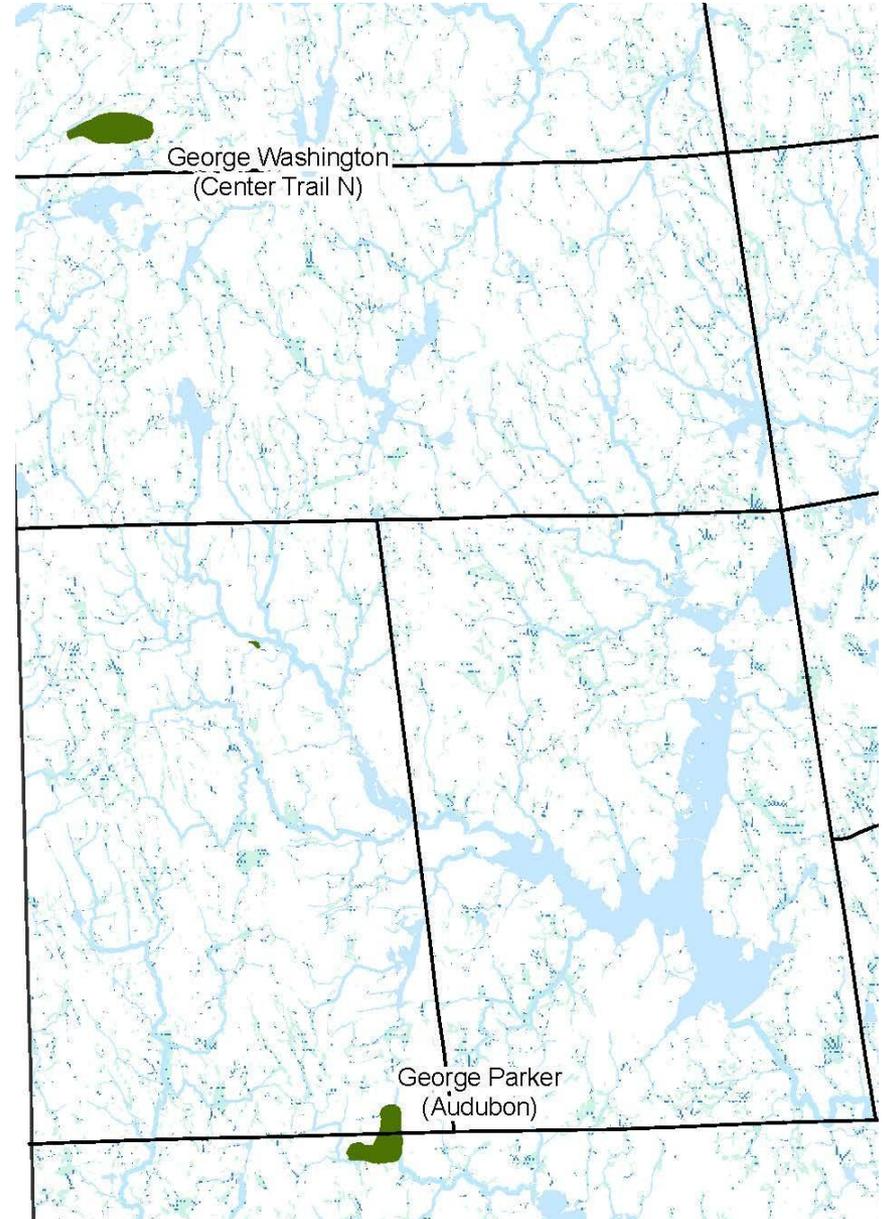
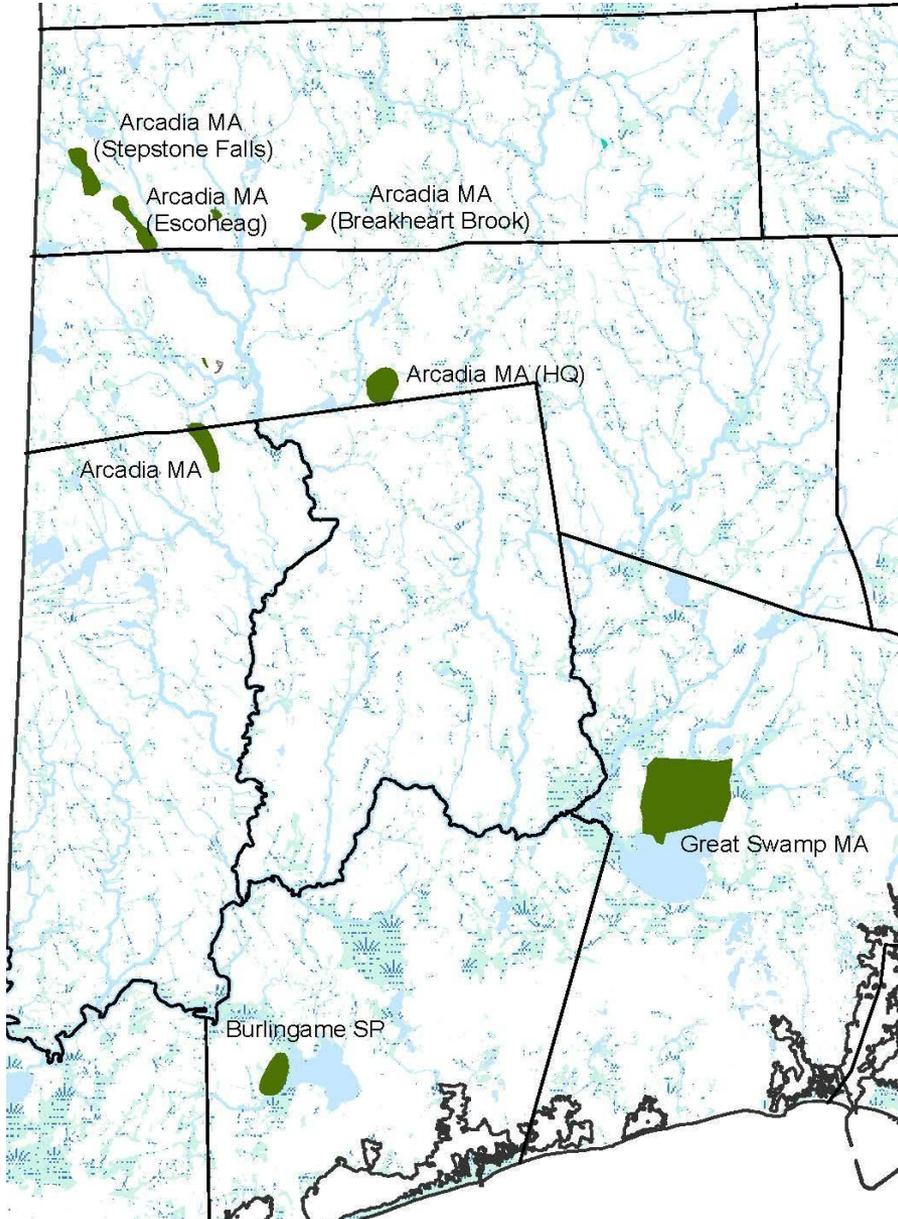
+ A few large/old trees do not comprise an old-growth **ecosystem**

+ Big trees are not always old ones.





# (some) Mature & Old Forests on Public & Conservation Land





RI DEM Fern Graves





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