

↓ Increase Structural Complexity

- Increase size/age class diversity across stands, include retention, large trees, tip-ups, cavities and other features
- Emulate natural disturbance regimes
- Small group and STS systems, structural complexity enhancement, expanding gap irregular shelterwood systems

Benefits

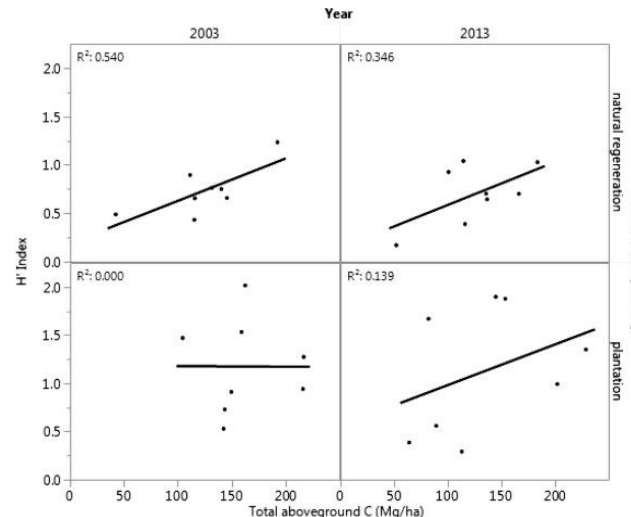
- Seeks to maximize opportunity for sequestration
- Promotes forest resilience
- Also associated with other ecological benefits, like biodiversity, old forest characteristics

Considerations

- Initial decline of carbon stocks (emissions)
- High influx of deadwood may increase emissions
- Vertical vs. horizontal structure

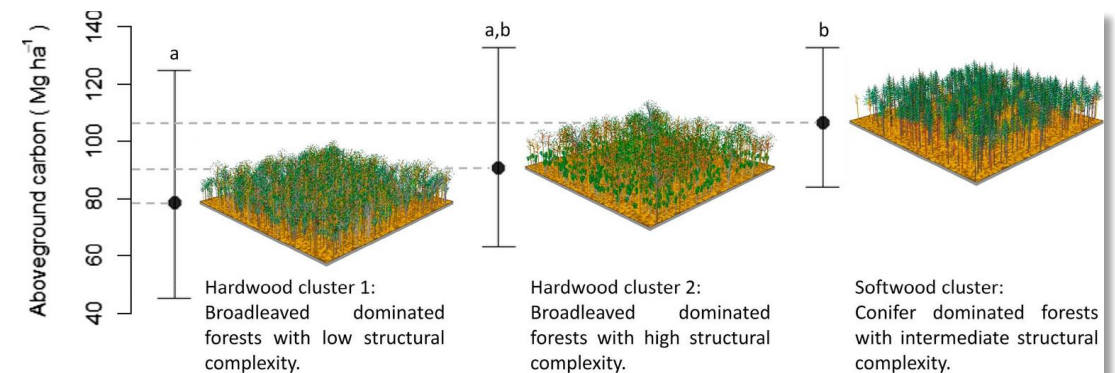


Structural complexity is related to higher aboveground carbon stocks in second growth forests



Source: Urbano and Keeton (2017)

Canopy gapiness, range in tree DBH, large DWD, vertical cover, tip-up mounds and cavity trees were all associated with higher aboveground carbon



Source: Thom and Keeton (2019)