

# Defining Early Seral Habitats

## *Industry Perspectives*

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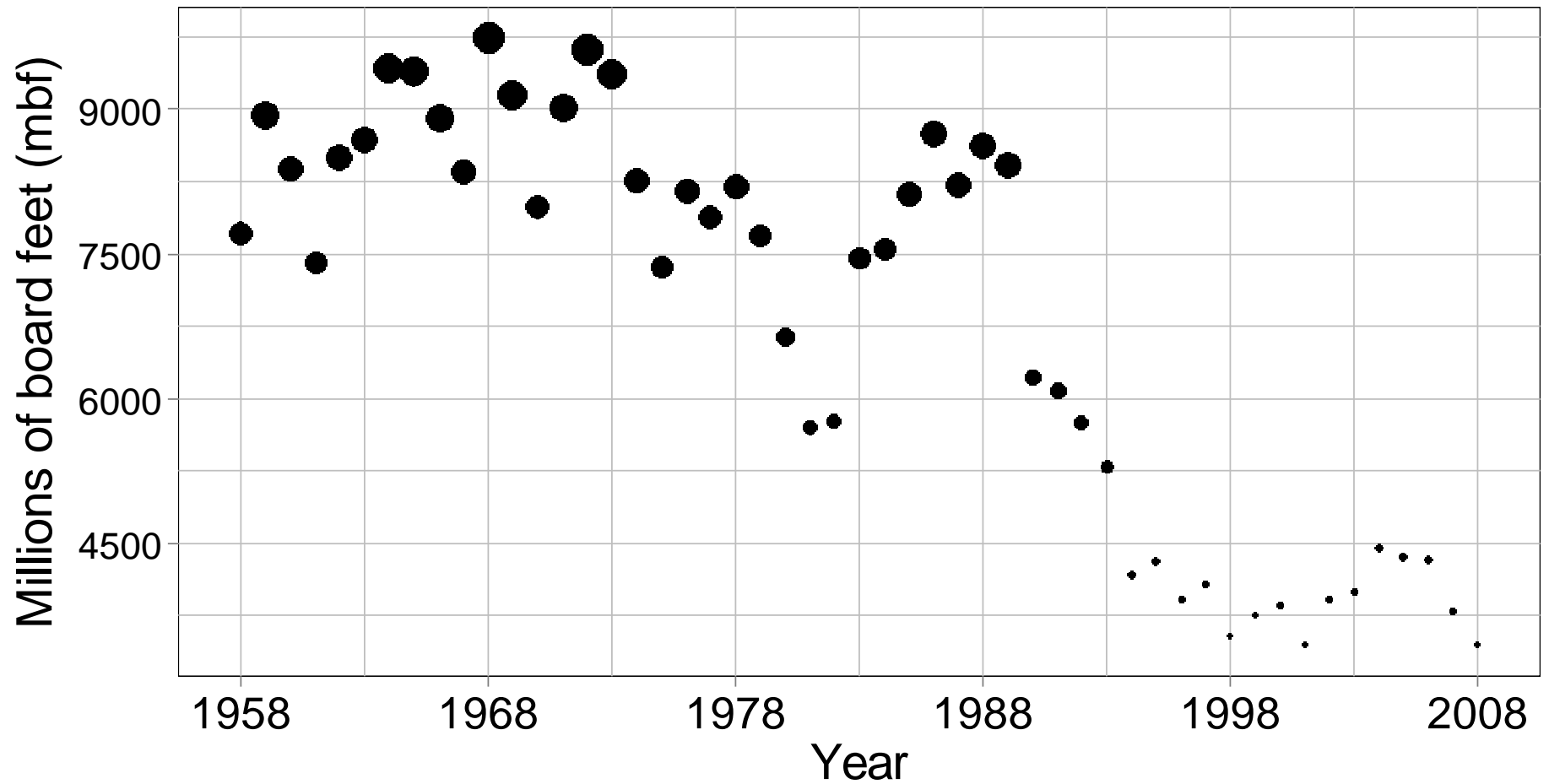
# An Industry “Perspective” Does not Exist

- Many landowners raise timber as a crop
- Differing value propositions
- Scale of operations influences practices
- Management incorporates multiple values, but *timber crop is paramount*

# Oregon Harvest Amounts, all ownerships (1958-2008)

<http://www.fs.fed.us/pnw/ppet/16.shtml>

• 4000 • 6000 • 8000

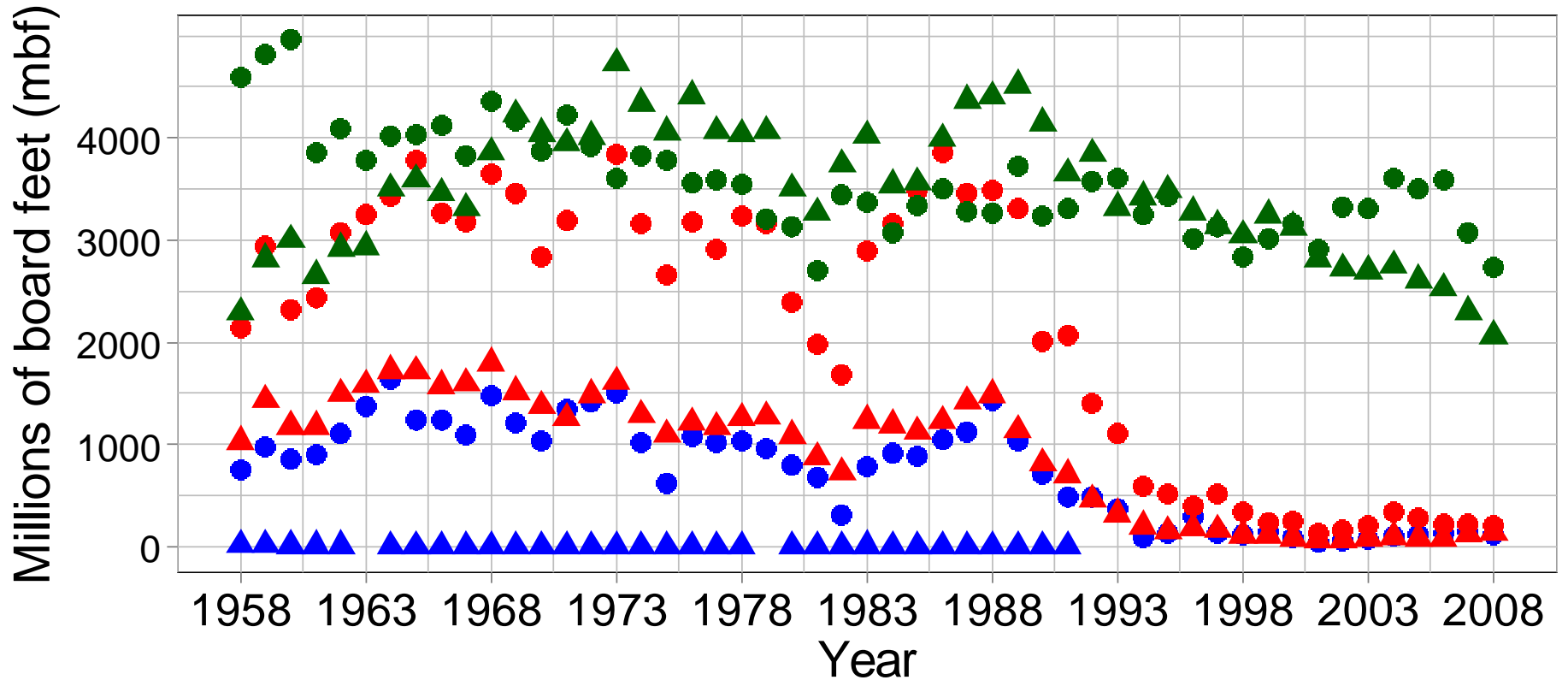
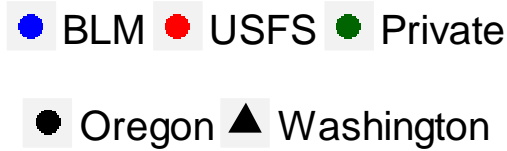




# Oregon and Washington Harvest Amounts (1958-2008)

by Year and Landowner

<http://www.fs.fed.us/pnw/ppet/16.shtml>



# Where did the Logs Go?

- Average U.S. home size doubled in ~50 years
  - Average size of ~2300 square feet (2005)
- 1978-2009, ~47 million homes built in the U.S.
- 466 billion board feet of logs needed to build these homes, or ~15 billion board feet *per year*
- USFS cut averaged ~12 billion board feet per year in the period from 1978-1988
  - ~3 billion bbf from Oregon





# Timber Economics

## *A global landscape*

- Wood is a global commodity
- By 2006, nearly 80% of industry land had been purchased by different timberlands investment structures (*Stein et al.; USFS*)
  - Timberland investment management organizations (TIMOs)
  - Real estate investment trusts (REITs)
- Timberlands must remain competitive against other asset classes

# Intensification or Extensification?

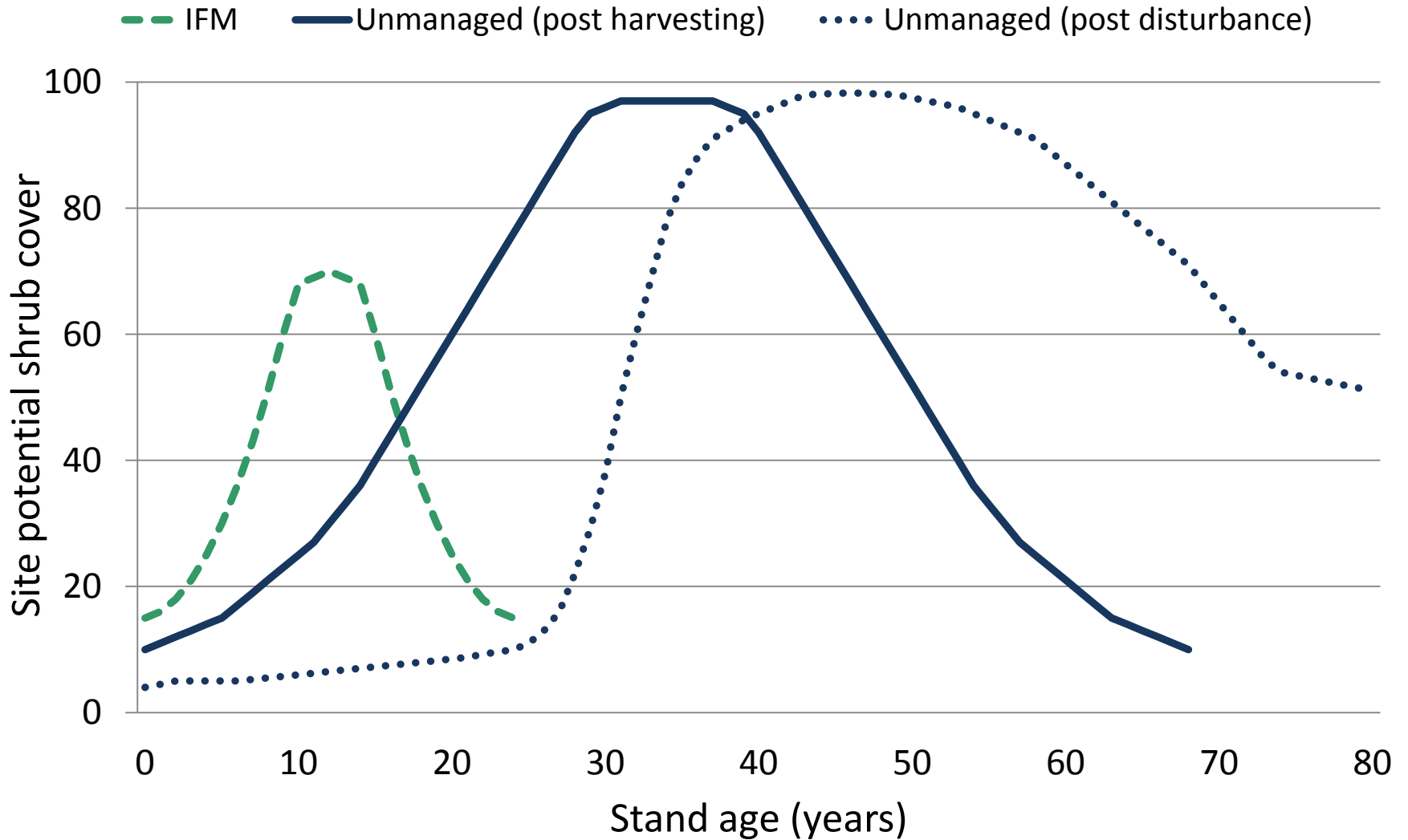
- Spatial and temporal scope of operations
  - Fragmentation
- Practices vary by strategy
- Novel pressures
  - Berger et al. 2013. *Journal of Forestry* 111: 139-153.
  - Otto et al. 2013. *Forest Ecol. & Mgmt.* 304: 275-285.



# Landscape and Stand Changes

- Spatial distribution of ES stands
  - Strong contrasts with historic patterns
  - Landscape context varies *by ownership*
  - Elevational gradient *by ownership*
- Conversion of high productivity, low-elevation stands
- ES stand management
  - **Historic:** Passive regeneration, burning for site preparation, planting of unimproved stock
  - **Current:** Active regeneration, chemical site preparation, planting of improved stock

# Intensification in ES Stands



# Issues in ES Stand Management

- Compressed ES stage
- Truncated stand ages
- Reduced structural complexity (spatial)
- Habitat may be reduced or eliminated for certain species
  - A 'balance' between ES and other species?

# Identify Solutions

- Can 'space' be substituted for 'time' in ES stand management?
  - At what scales?
- Reduced structural complexity as a trade-off for intensification?
- Uniformity

# BBS Route Estimates (Oregon) for 5 Early Seral Forest Birds, 1968-2008

species • American goldfinch • Orange-crowned warbler • Swainson's thrush • White-crowned sparrow • Wilson's warbler

Harvest • 2800 • 3200 • 3600 • 4000

