

**What can history tell us  
about landscape  
dynamics?  
And so what?**

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A stylized silhouette of a mountain range in shades of teal, located at the bottom right of the slide.


# Why consider history?

- ◆ Ecological legacies, ecological capacity, native species, honor the aged
- ◆ Policy direction – ESA, regs for NFMA, Healthy Forest Restoration Act, Directives

# How to consider history

- ◆ Uses of history – Define reference systems, define trajectories of change
- ◆ Management approaches – “HRV”, coarse filter to sustain biodiversity and watershed processes, terrestrial and aquatic applications

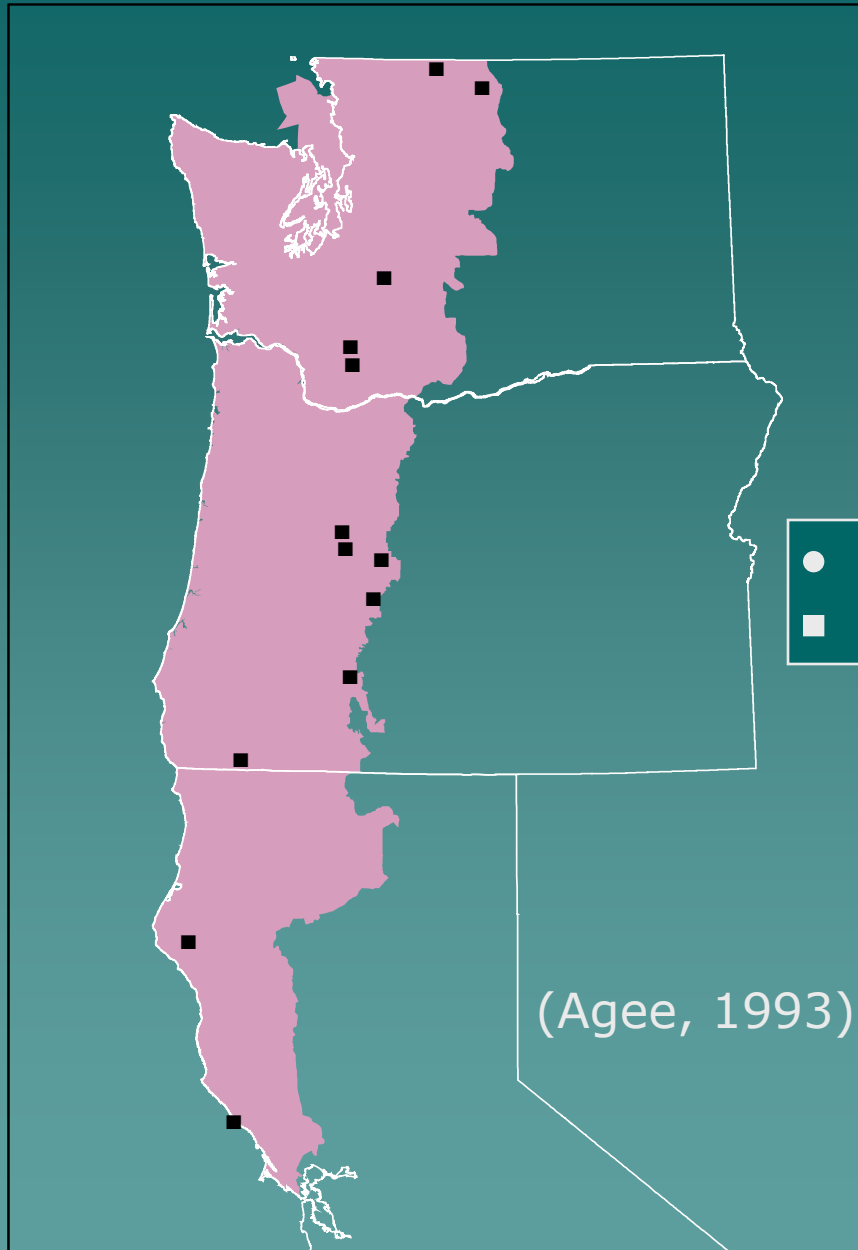
# Regional history of landscape dynamics – 1994 and today

- ◆ Spatial patterns of fire regimes
  - ◆ Temporal patterns of fire regimes
  - ◆ Importance of mixed frequency/severity fire regimes
  - ◆ Importance of fire refuges
  - ◆ Indian burning
  - ◆ Other disturbance processes
- 


# Fire History Studies

Through 1993

Through 2004



# Use of information on historical landscape dynamics

- ◆ Current emphasis: reserves
  - ◆ Latest policy: use an understanding of landscape dynamics history
  - ◆ Attitudes in the field: strong interest
  - ◆ Applications on the ground: few
  - ◆ Learning efforts: meager
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- A stylized silhouette of a mountain range in shades of teal, located in the bottom right corner of the slide.

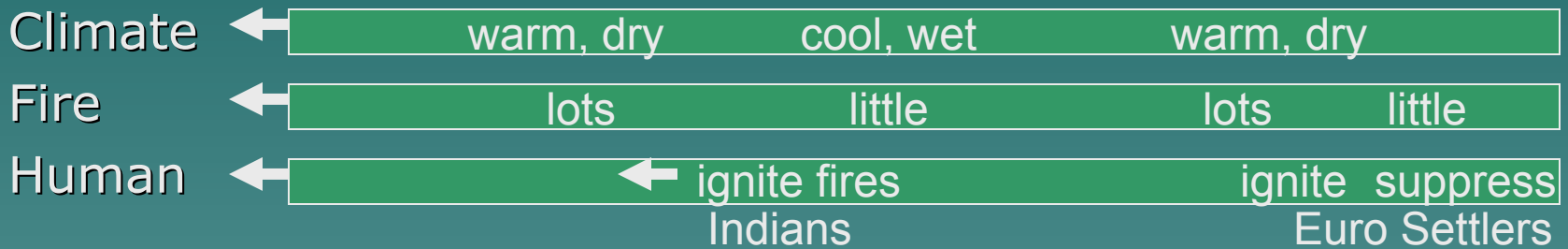
# Challenges to using history

- ◆ Disturbance regimes change over time
- ◆ Climate changes
- ◆ Invasive species increase
- ◆ Roles of native people

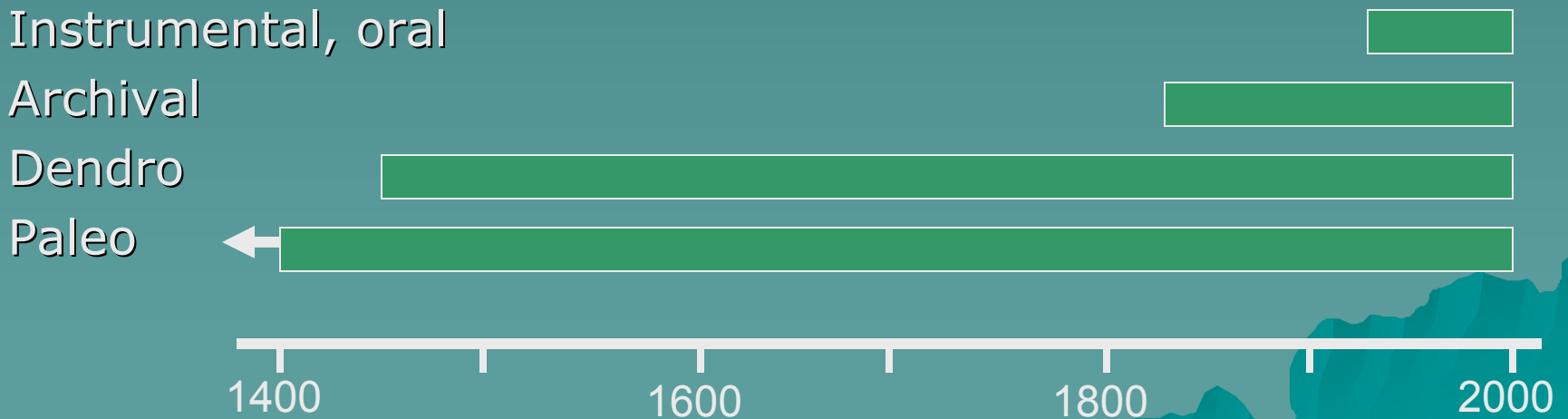
Affect other landscape management approaches too

# What history to consider?

## Drivers of change



## Records





# Relevance of the past to the future

## Low relevance

- ◆ Specific, past disturbance sequence
- ◆ Very big events

## High relevance

- ◆ Fine-scale habitat structures
- ◆ Broad aspects of disturbance regime
- ◆ Local refuges from disturbance

# The issue environment

- ◆ Fire/fuel accumulation and treatment
- ◆ Climate change
- ◆ Invasive species expansion
- ◆ Historic landscape dynamics to guide habitat management

Geography of these issues.

Pace of change.

Pace of response/anticipation.

Compatible approaches across issues.

# What next?

- ◆ Develop the science and practice of landscape management based on historic dynamics
- ◆ Integrate approaches across issues – climate, fire, invasive species, habitat dynamics, ...

We have time to learn about change.  
What is our agenda for doing so?