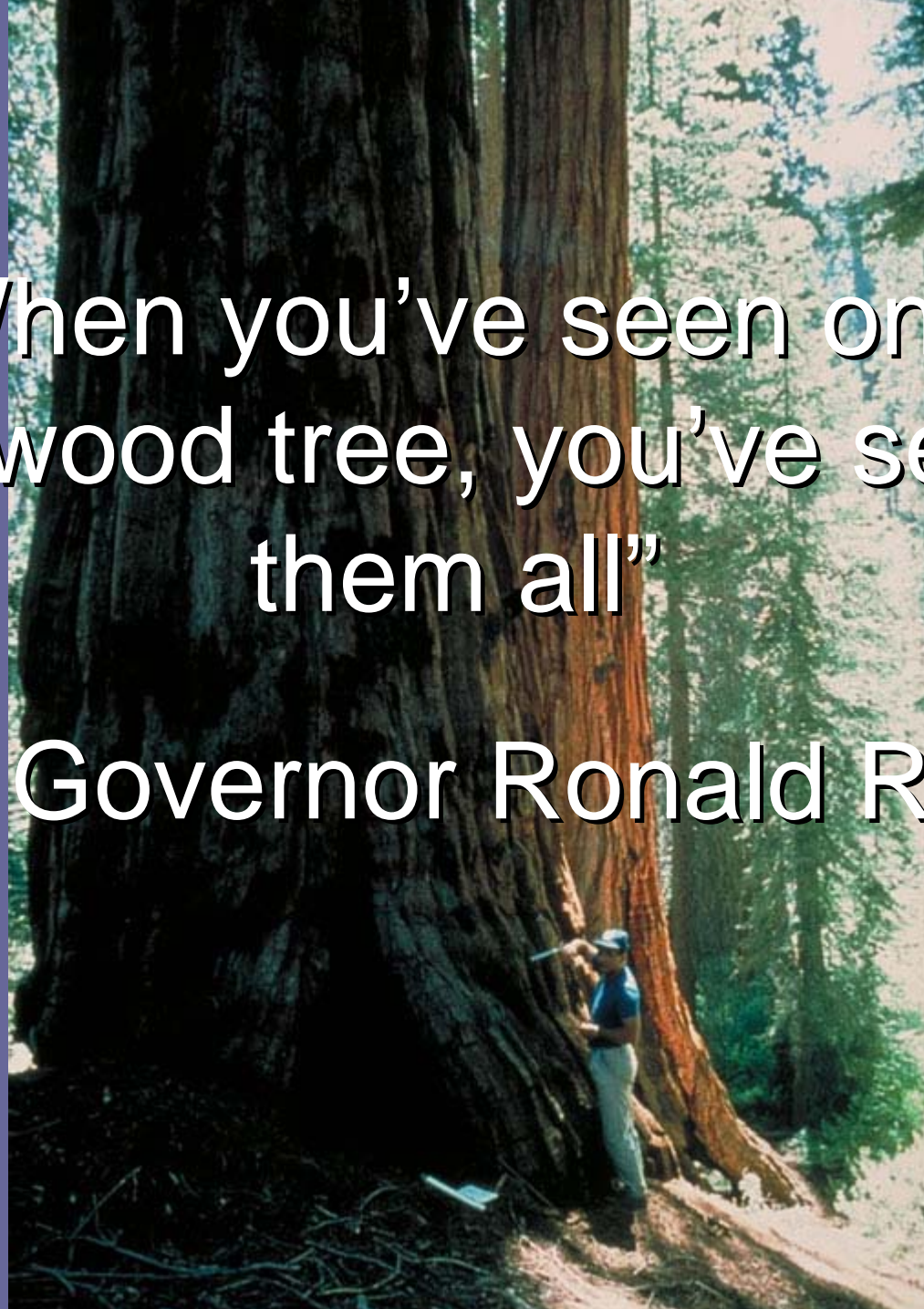


# Dendro- chronology

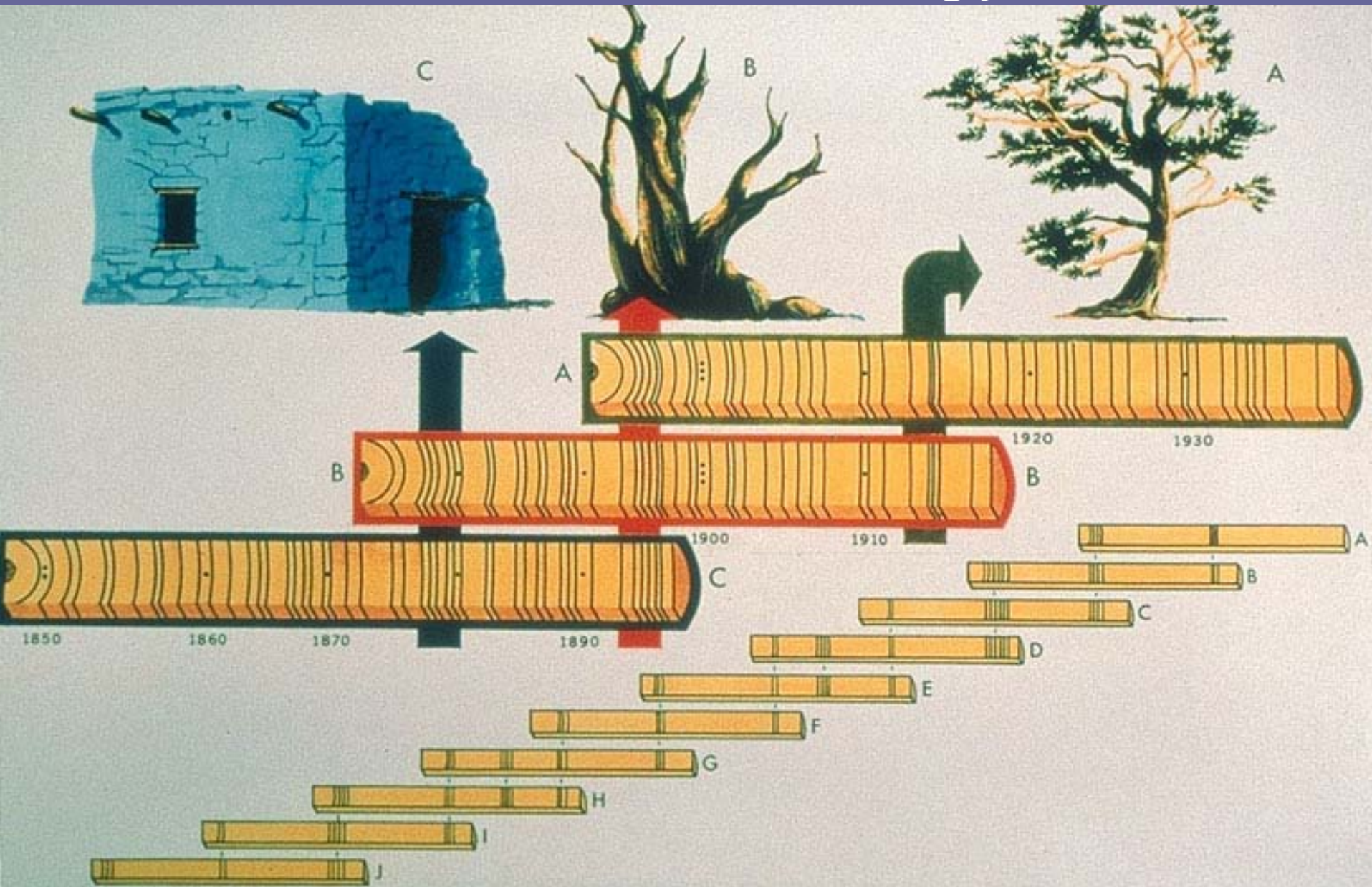
The correlation between tree  
ring data and published  
climatological data from  
Boulder County CO

When you've seen one  
redwood tree, you've seen  
them all"

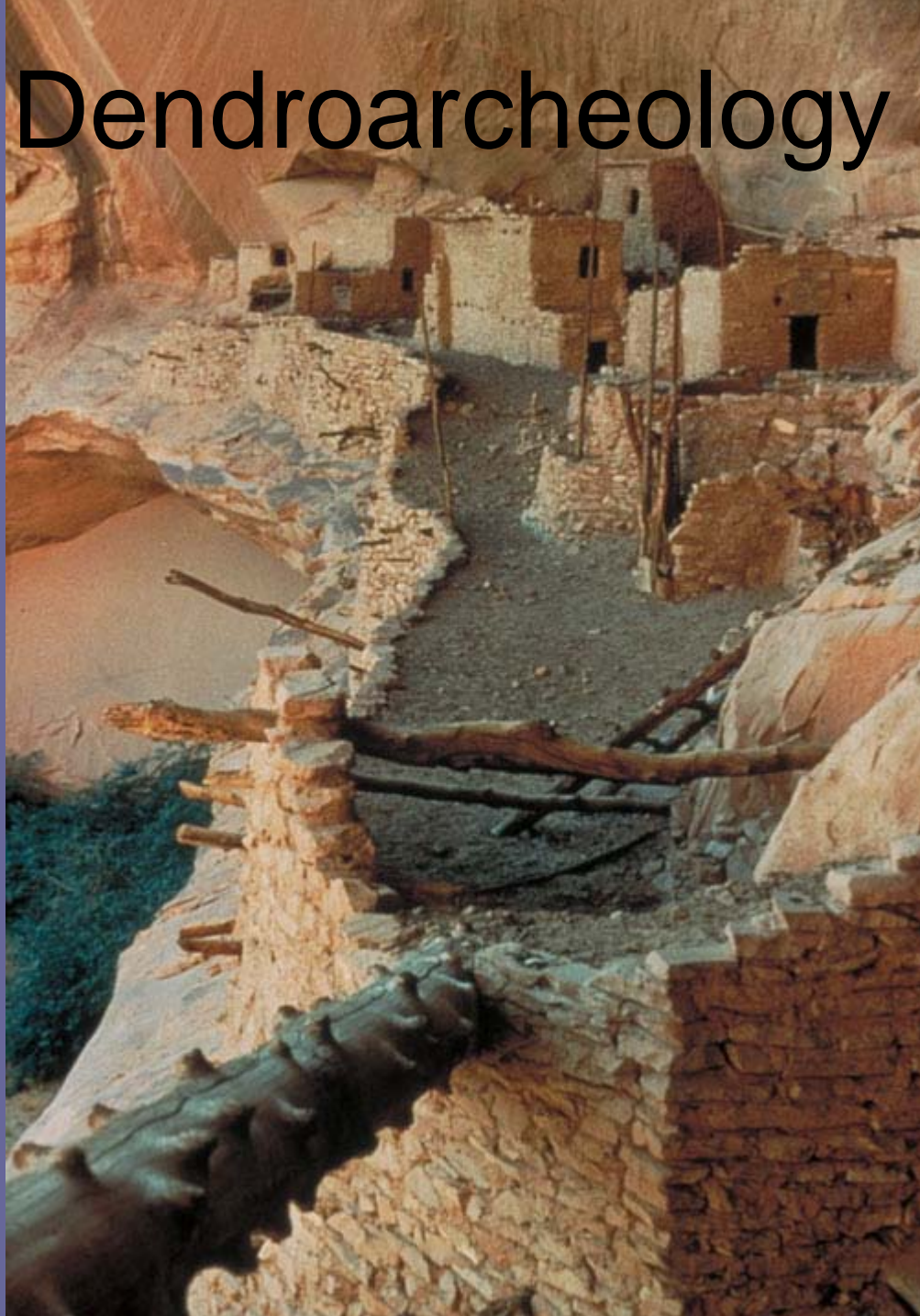
-CA Governor Ronald Reagan



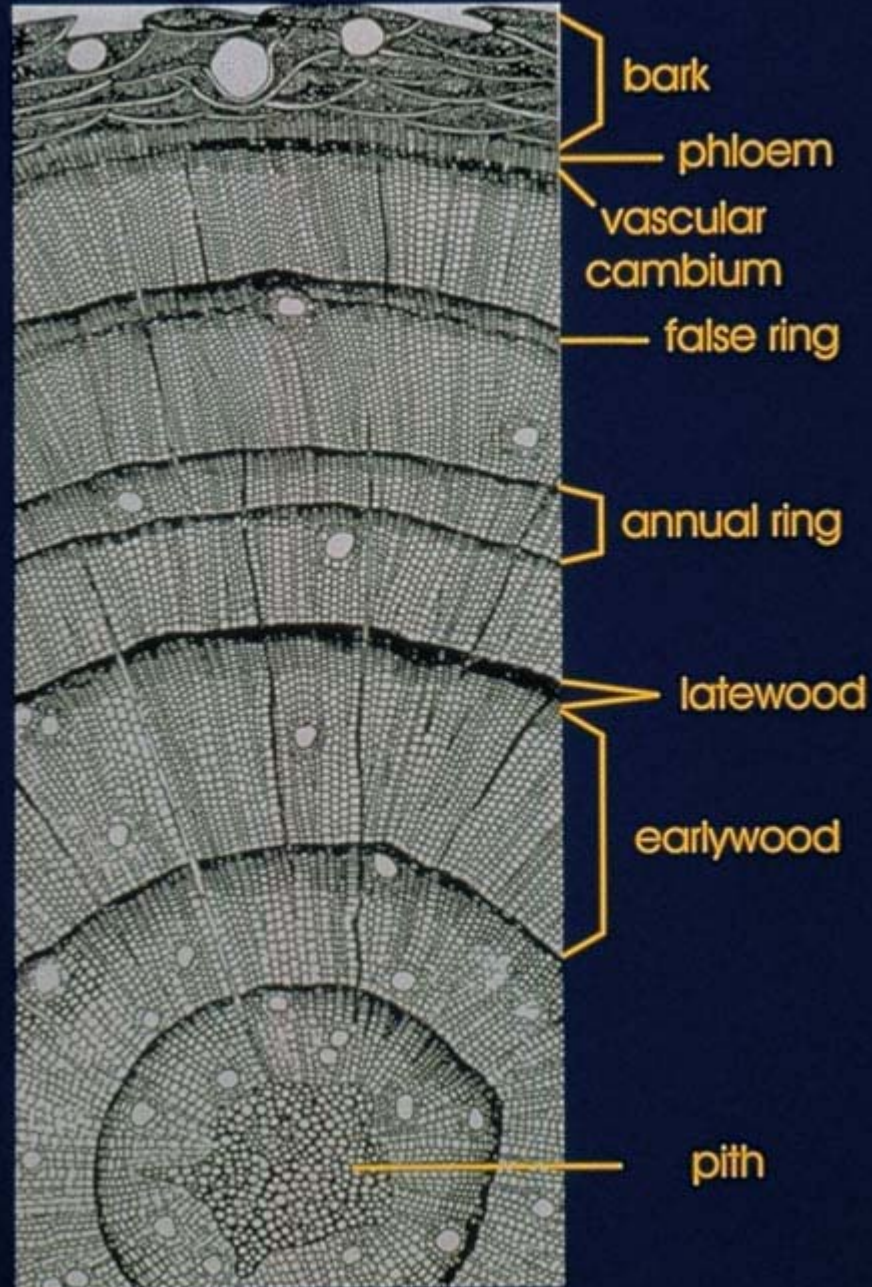
# Dendroarcheology

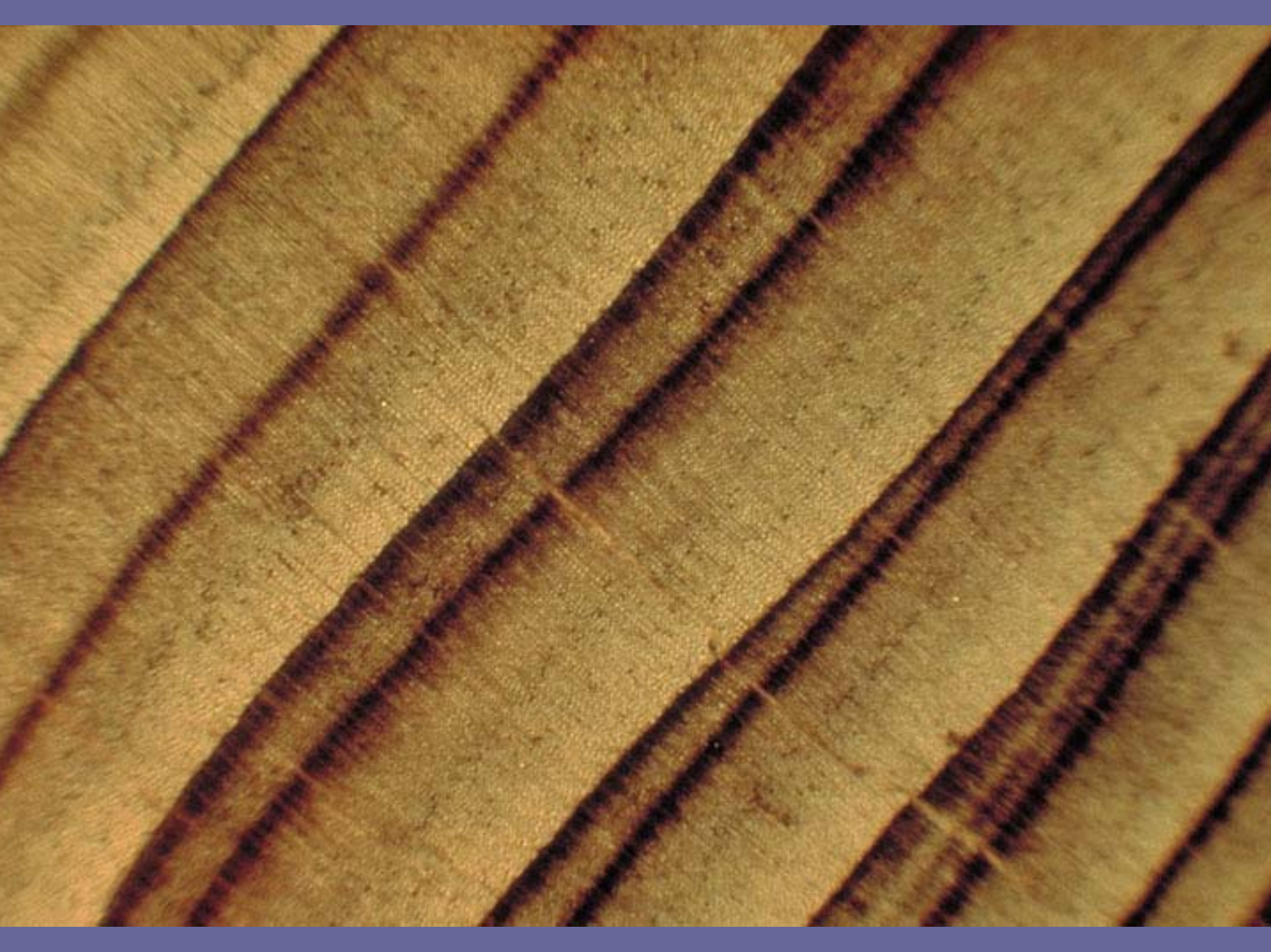


# Dendroarcheology



# CROSS SECTION of a CONIFER





PG

1400

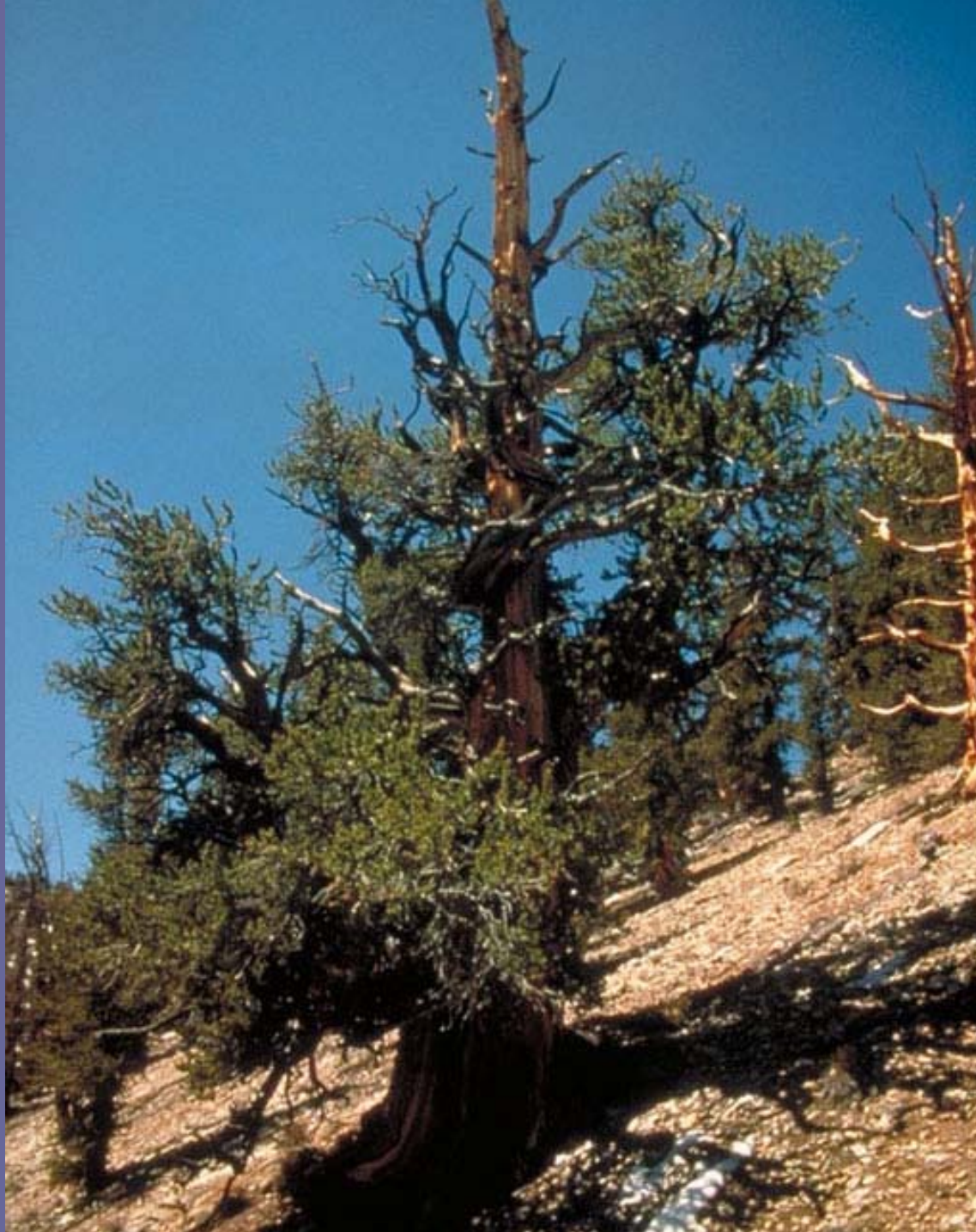
PL

11900

ME K

DK

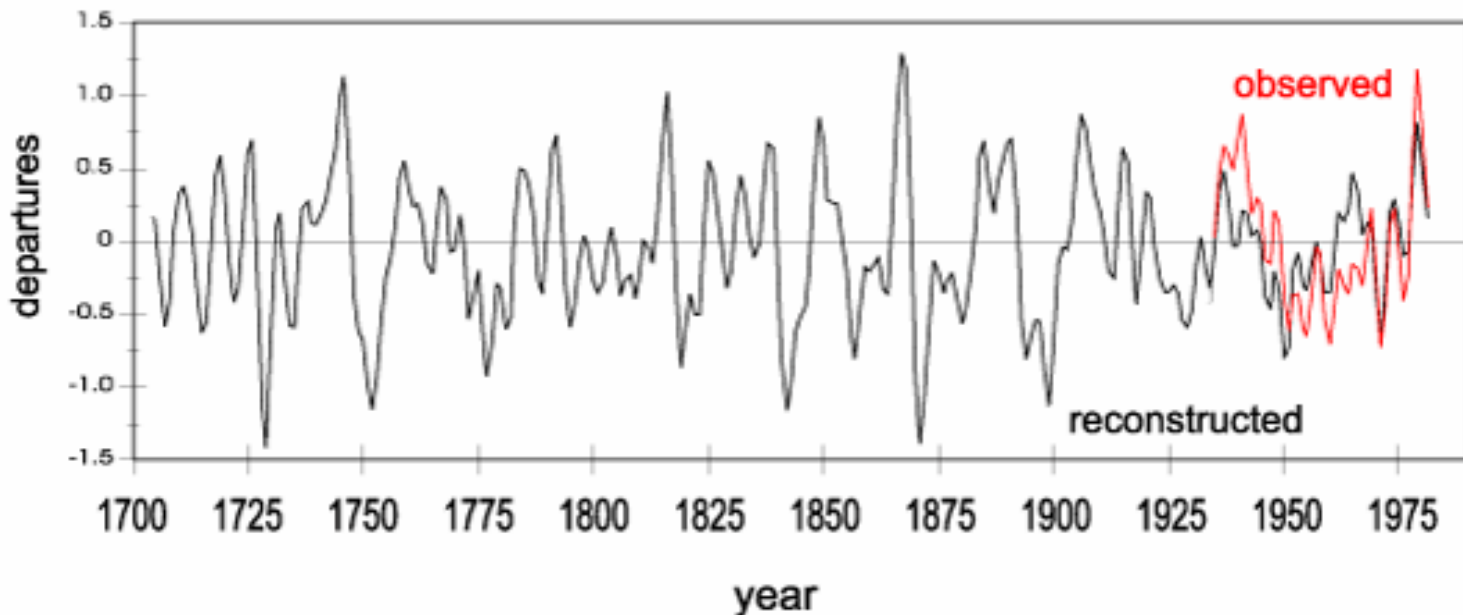




# Dendroclimatology

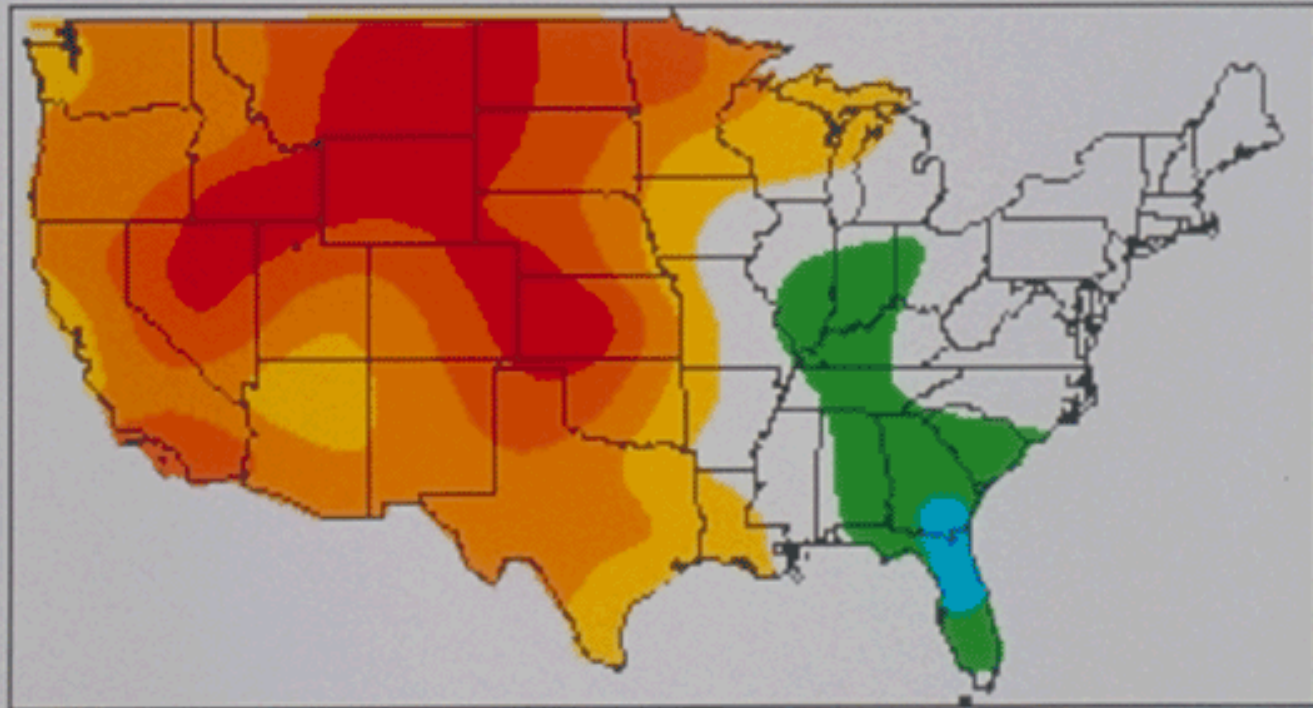
## Number of Precipitation Days in Winter Reconstructed from Southwestern Tree Ring Chronologies

### N. Arizona/New Mexico

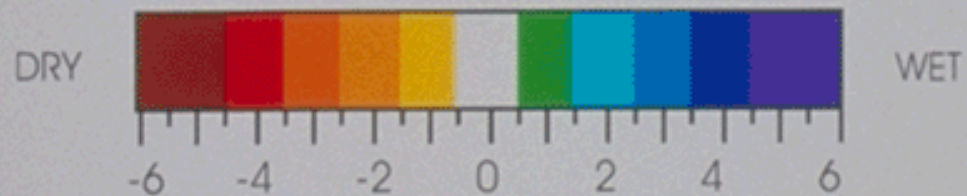


from Woodhouse 1996

# Drought reconstruction from tree rings for the United States, 1863



Palmer Drought Severity Index



## Locations of Tree-Ring Chronologies



International Tree-Ring Data Bank, World Data Center-A for Paleoclimatology,  
NOAA National Geophysical Data Center

# What Did We ASK?

- The relationship between actual weather and tree ring data
- Cycles of drought and wetness
- Predictability possibilities
- How important was site specificity (slope, competition, etc)

# What Did We DO?

- Chose species
- Chose locations
- Hey! Look! A chicken!
- Chose randomness

# What Did We DO?

- 1-2 samples from each tree
- 3 trees from each location
- 8 sites
- Measured in decadal increments

# What Did We DO?

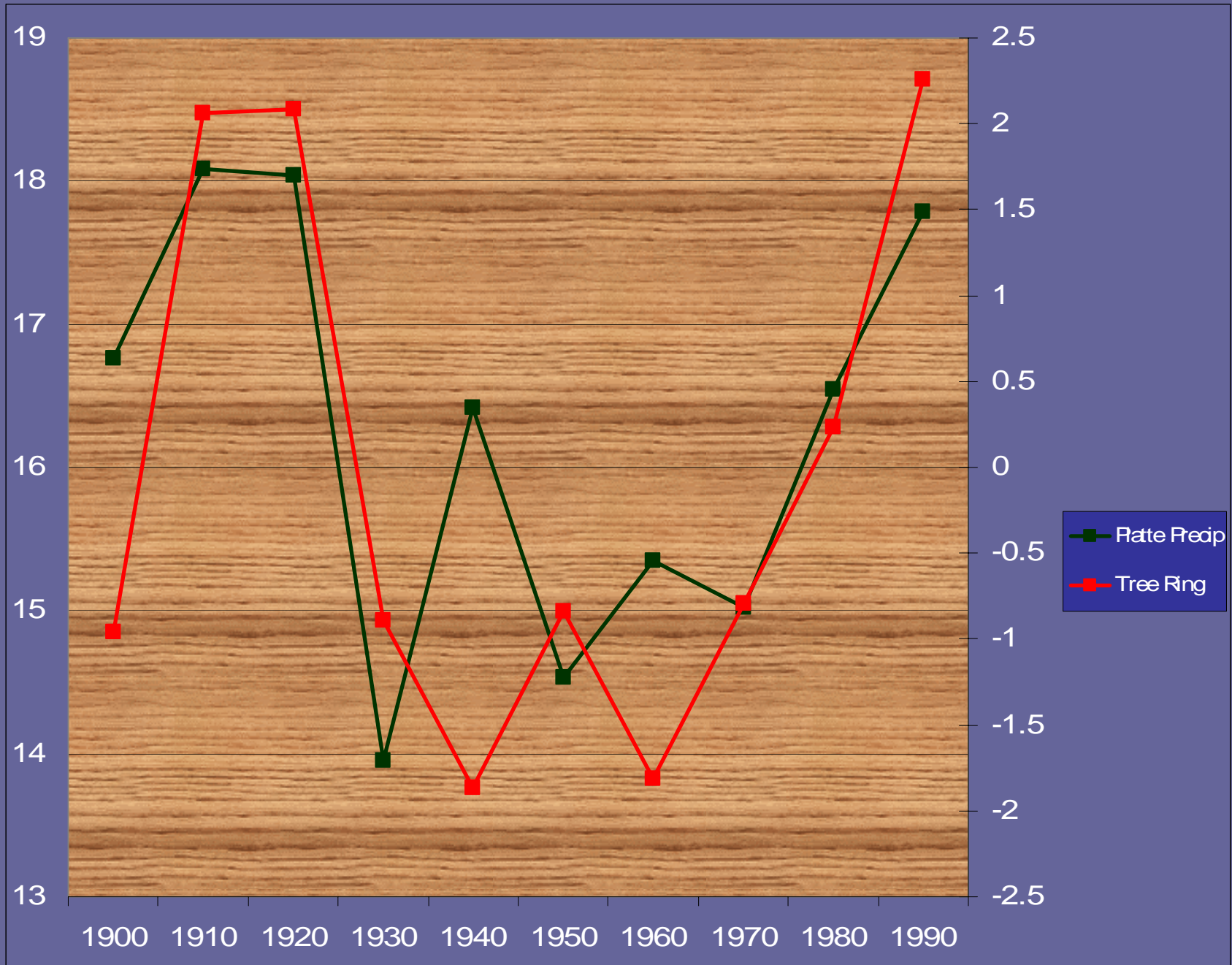
- Went to CSU for climate data to 1893
- Looked at data for Boulder, Estes Park, and Longmont.
- Used compiled data for the whole Platte River Basin

# How did we DO IT?

- Created charts of collected data
- Adjusted for growth trends
- Overlaid precipitation and temperature data
- Got lots of charts
- Lost lots of charts
- Repeat steps 1-4

# What Did We LEARN?

- Results made us vibrate with excitement
- Throwing in algorithm makes it work
- Trees put on the same mass every year



# Did you have any PROBLEMS?

- Staring through a microscope hours on end created nausea
- Old guys running up the mountain
- Too much data to analyze
- Interpretation might be tedious for students
- Differences between landscaped/natural trees

# Anything Else INTERESTING?

- It works!
- IT WORKS!!

# Your Mission:

- Geocache to waypoint #1, follow the instructions provided (bring marker with you)

# Your Mission:

- The prize for first place:

