

# Une page de notre Histoire au travers des arbres

Maaike De Ridder



**La filière bois à la croisée des forêts**

La forêt évolue, la filière s'adapte

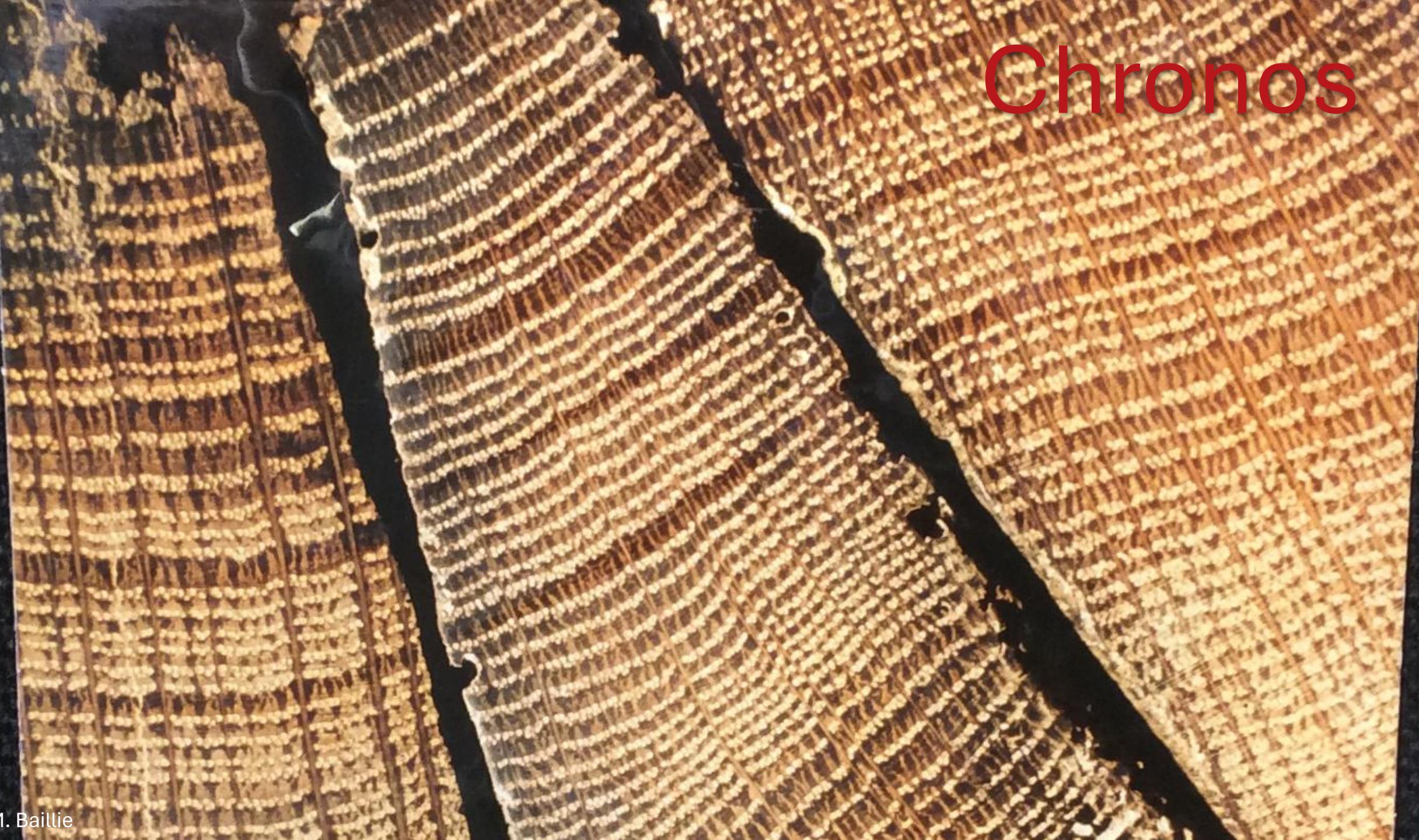


RENCONTRES  
FILIERE BOIS  
15 AVRIL 2025

# Dendron



# Chronos

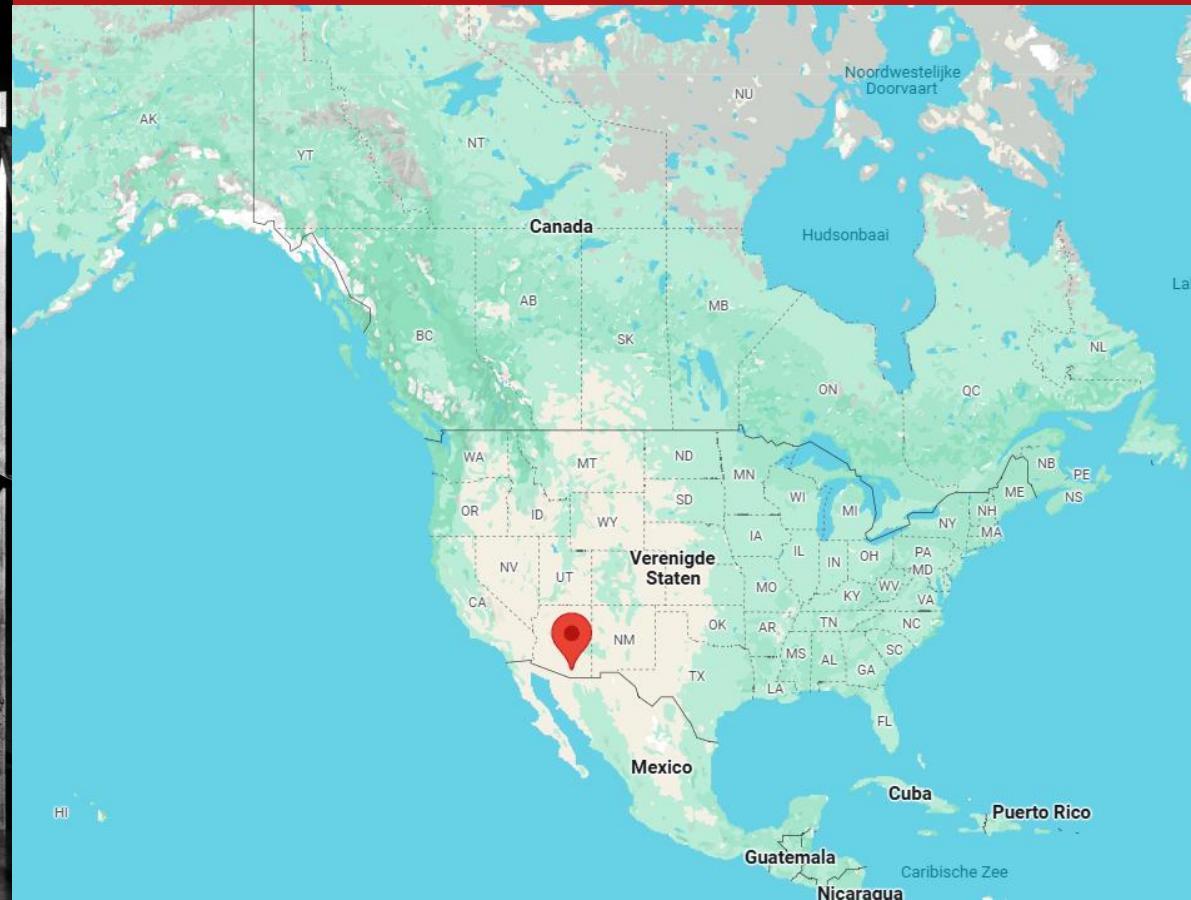


# L'histoire (et le ❤️) de la dendrochronologie

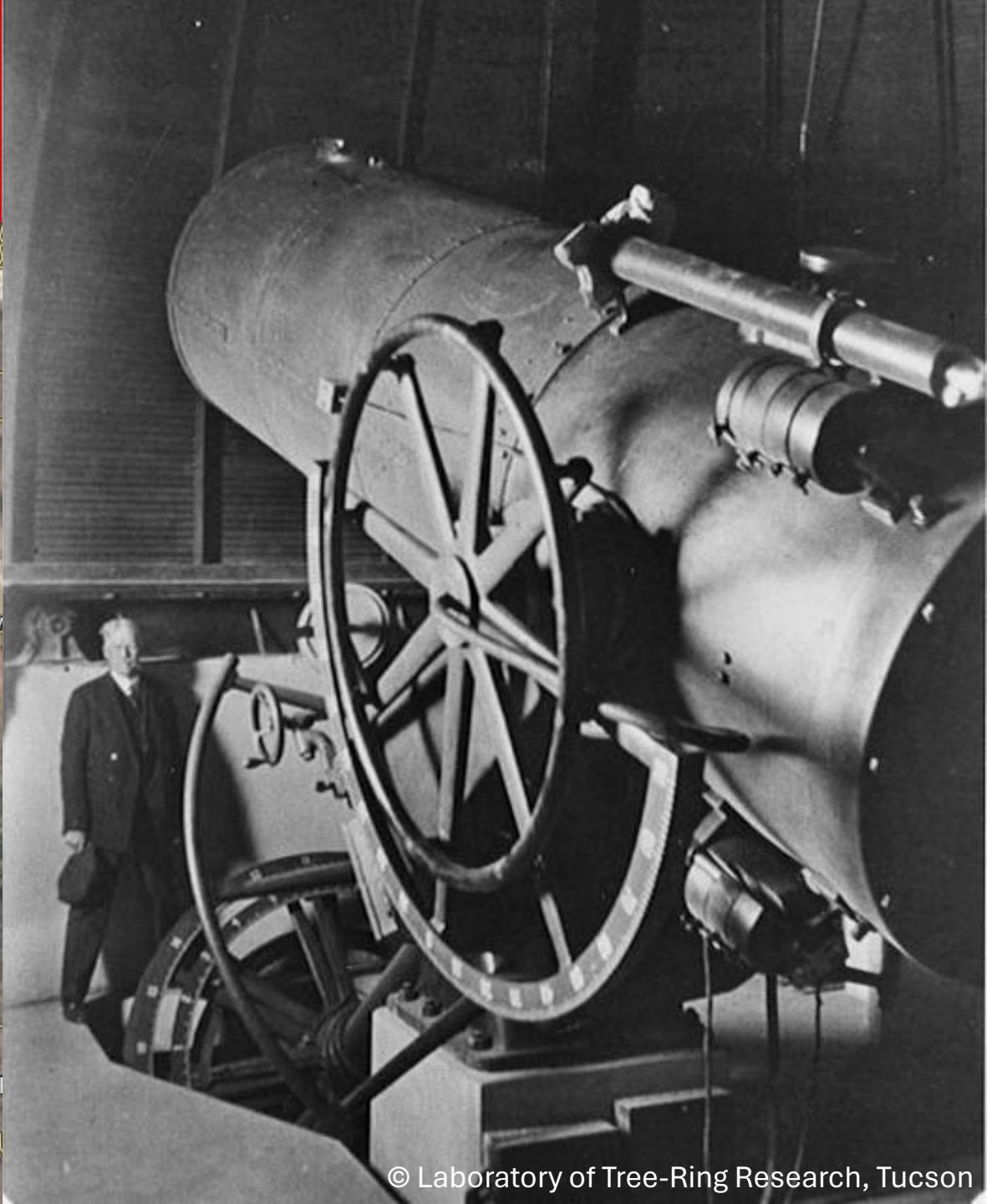
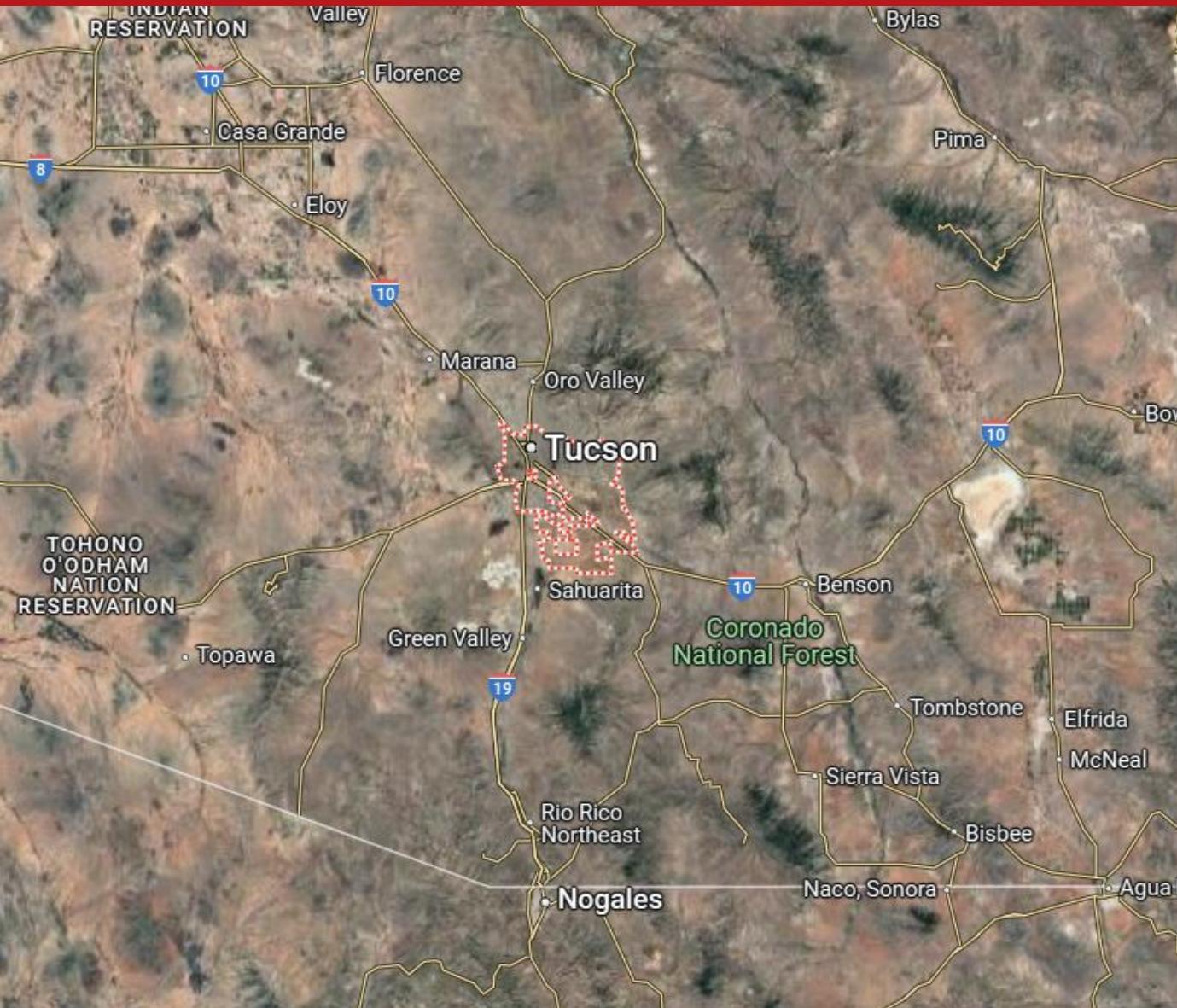


« En traduisant l'histoire des arbres, nous avons repoussé les horizons de l'histoire »

Andrew Ellicott Douglass (1867-1962)



# Dendrochronologue par hasard?



© Laboratory of Tree-Ring Research, Tucson



© David Muench

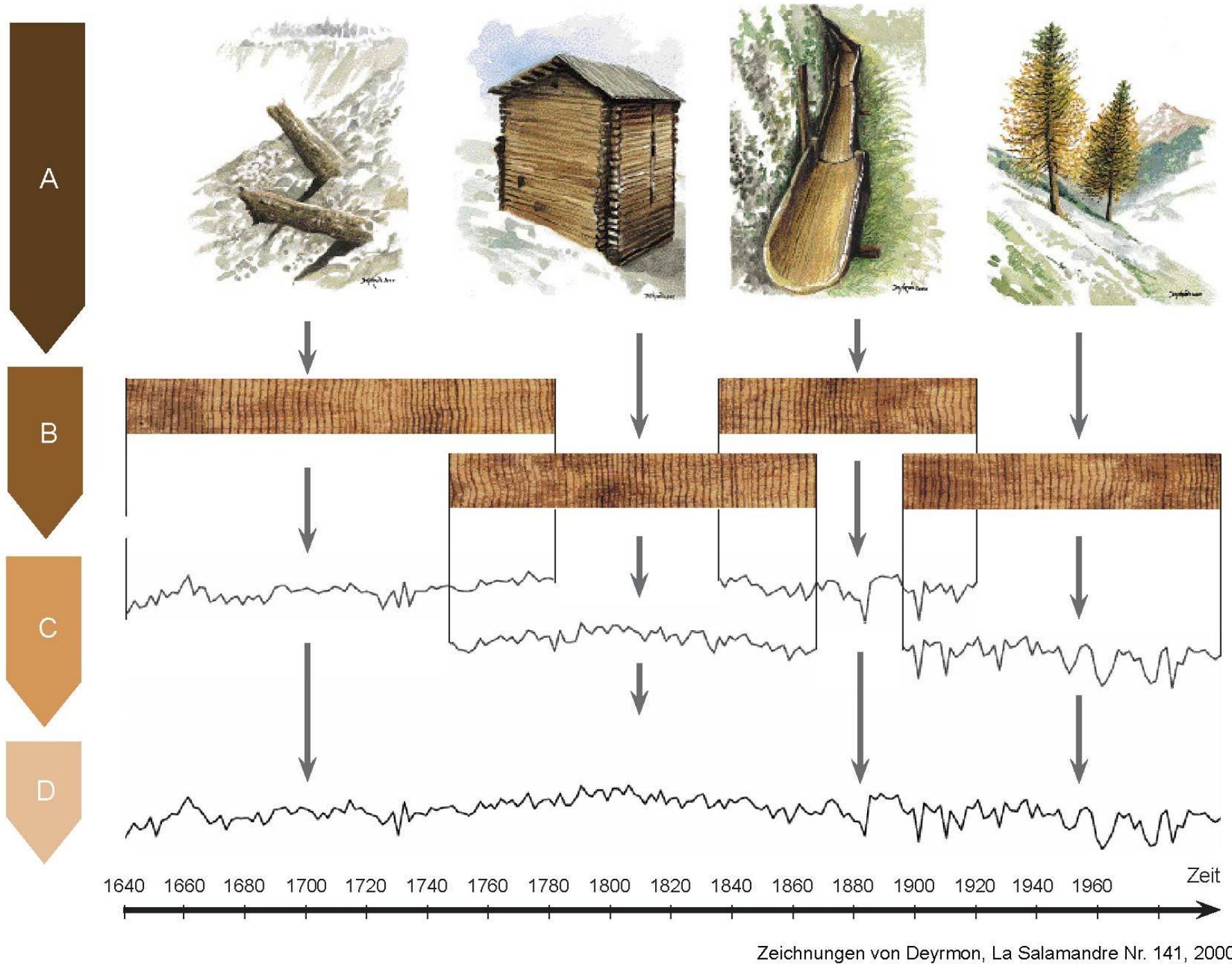


© California State Parks



© Jasperdo

# Le<sup>♥</sup> = Crossdating!





# TREE STORY

*The History of the World Written in Rings* Valerie Trouet



L'histoire d'un (vieux) arbre

ADONIS > 1075 ans @ Pindos, la Grèce, *Pinus heldreichii*



BRISTLECONE PINE > 5000 ans @ Californie, Etats Unis



# L'histoire du terrain au microscope



© Valerie Trouet

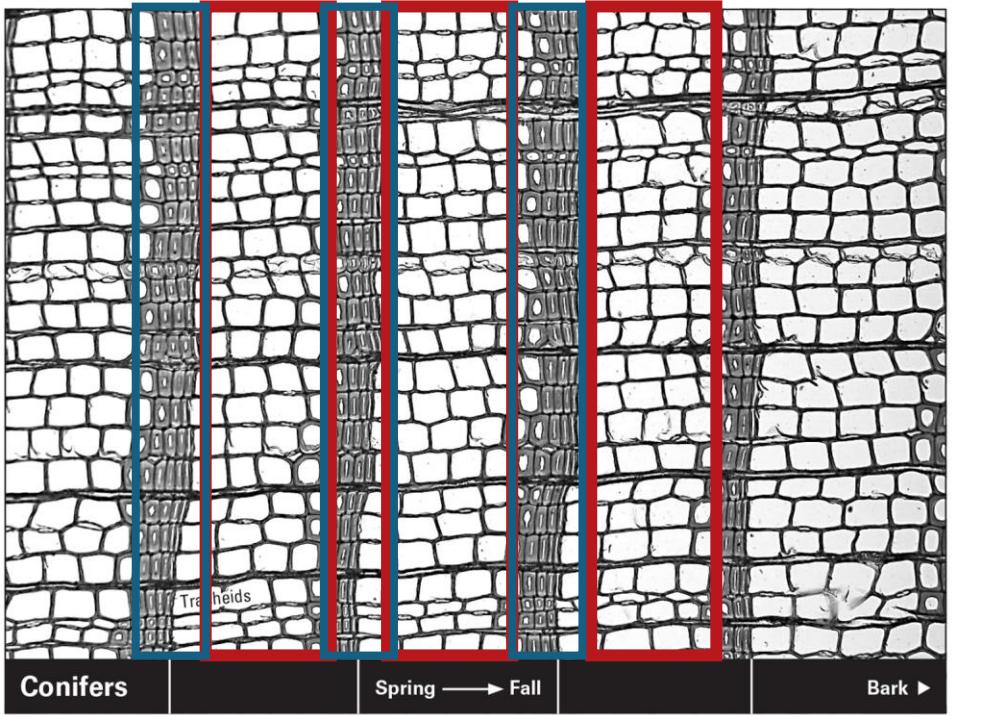


© D. Schook





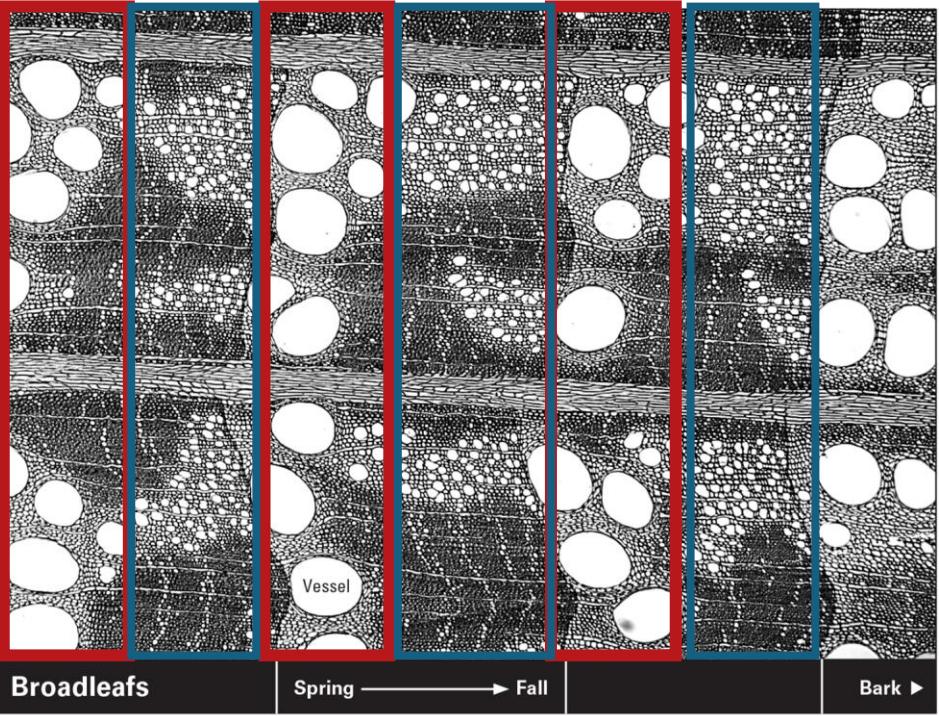
© Kris Vandevorst, Agentschap Onroerend Erfgoed



Conifers

Spring → Fall

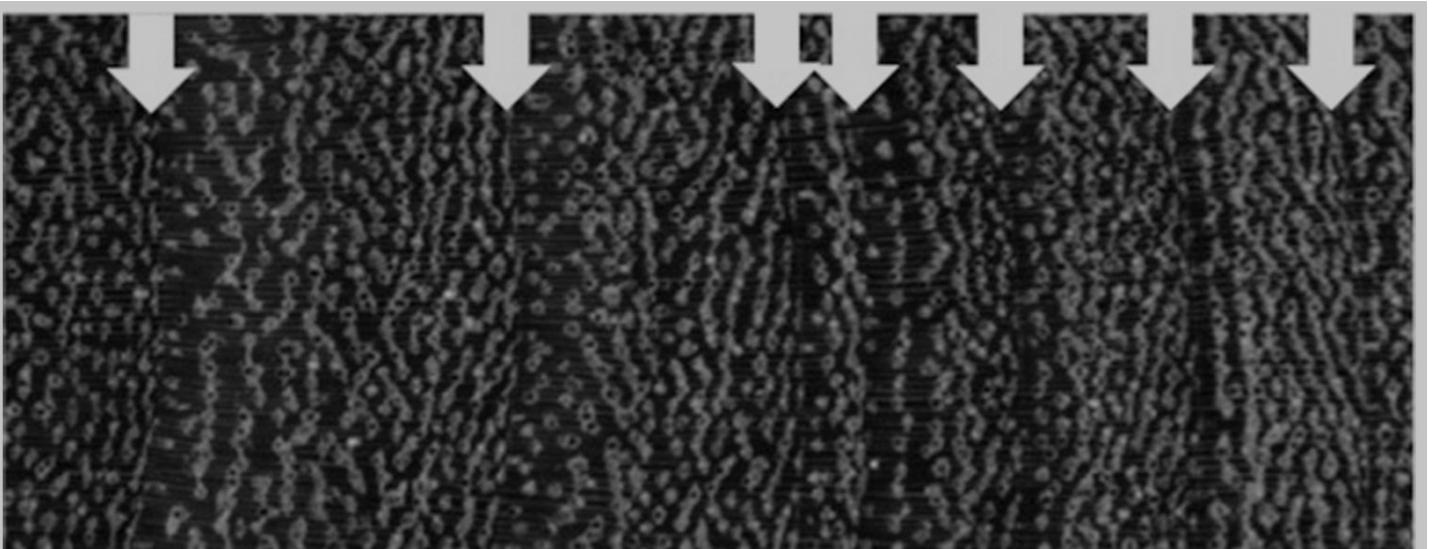
Bark ▶



Broadleafs

Spring → Fall

Bark ▶



Afromosia, spring → fall

Bark →

# L'histoire des arbres

# *1. Dendroarchéologie et dendroprovenance*

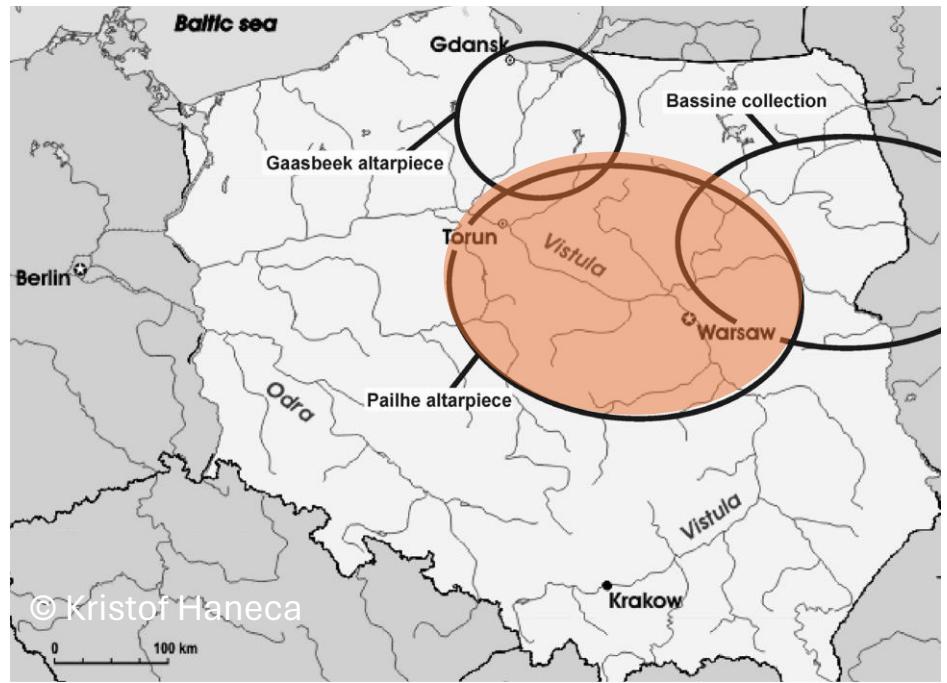
Temple de Horyuji, Japan, cyprès japonais de 594 AD



# Triptyque Miraflores, Rogier Van der Weyden (1400-1464)



# Retable de Pailhe, province de Liège, 1510-1530



© KIK-IRPA, Bruxelles

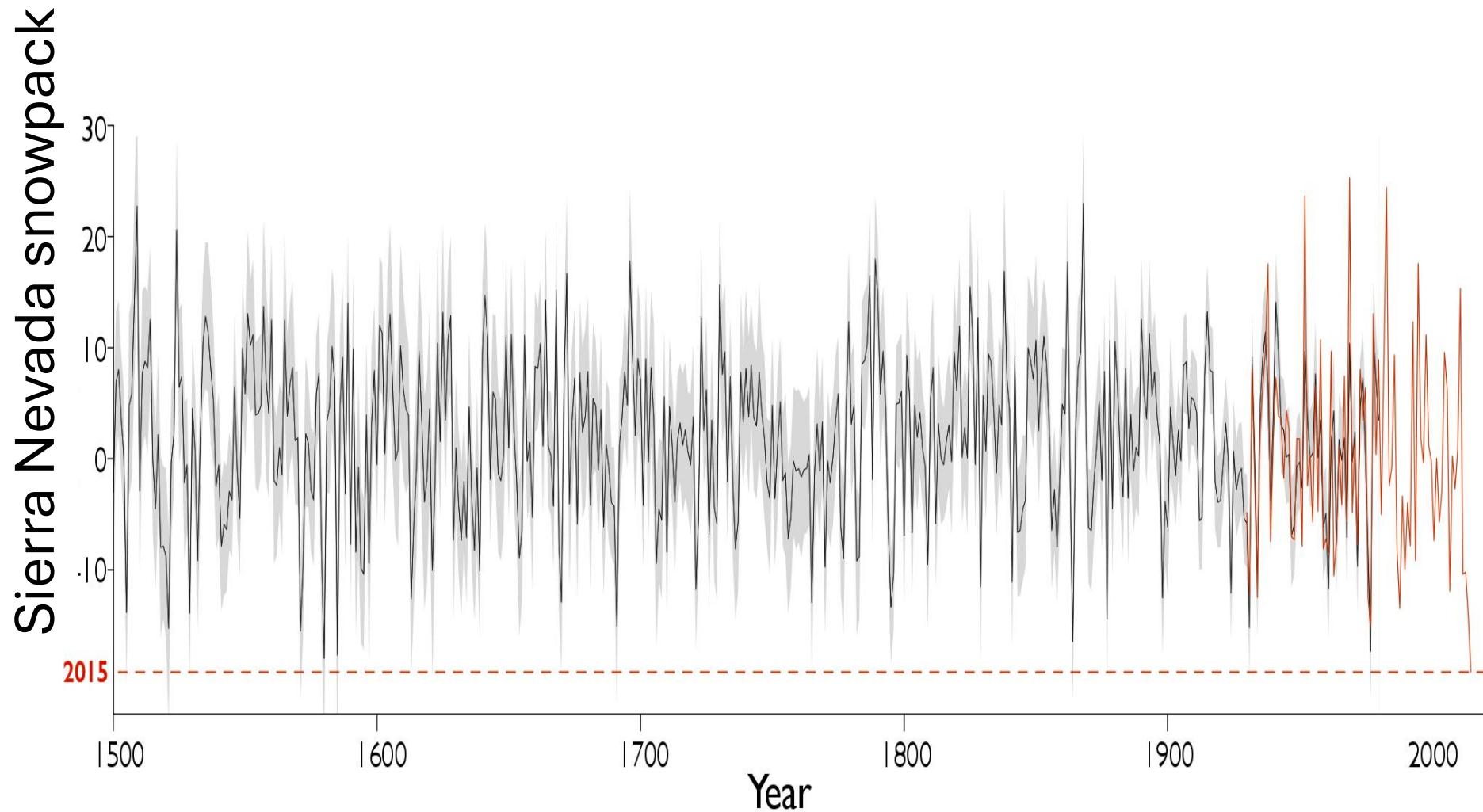
## *2. Dendroclimatologie*



*Quercus douglasii*  
Central Valley  
California



© Laura Bell





TRILOBITES  
A Scaredy-Cat's  
Investigation Into Why  
People Enjoy Fear



TRILOBITES  
No More Data From Pluto



UNCERTAIN HARVEST  
Doubts About the  
Promised Bounty of  
Genetically Modified...



MATTER  
How the Brown Rat  
Conquered New York City  
(and Every Other One...)



TRILOBITES  
Flying for 10 Months  
Without a Layover

## SCIENCE

# *Study Finds Snowpack in California's Sierra Nevada to Be Lowest in 500 Years*

By NICHOLAS ST. FLEUR SEPT. 14, 2015



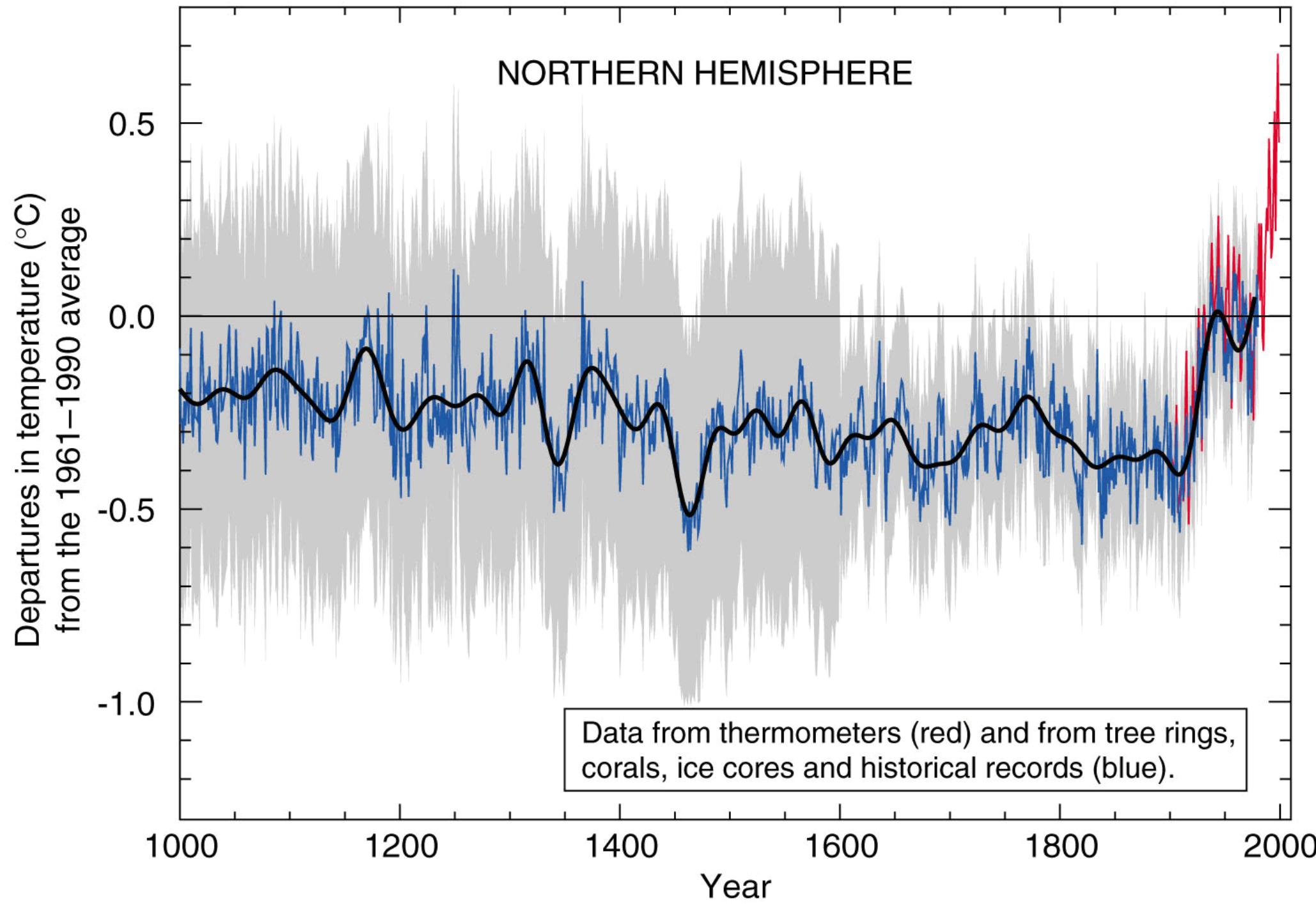
## RELATED COVERAGE



3 Major California Wildfires Remain  
Largely Out of Control SEPT. 14, 2015



For California, El Niño's Dark Clouds Could  
Mean Rain but Also Trouble SEPT. 10, 2015



# *2bis. L'étude des extrêmes climatiques*

*Pinus elliottii*  
Big Pine Key  
Florida

1785 event

1744 event

Multiple events  
1752-1770

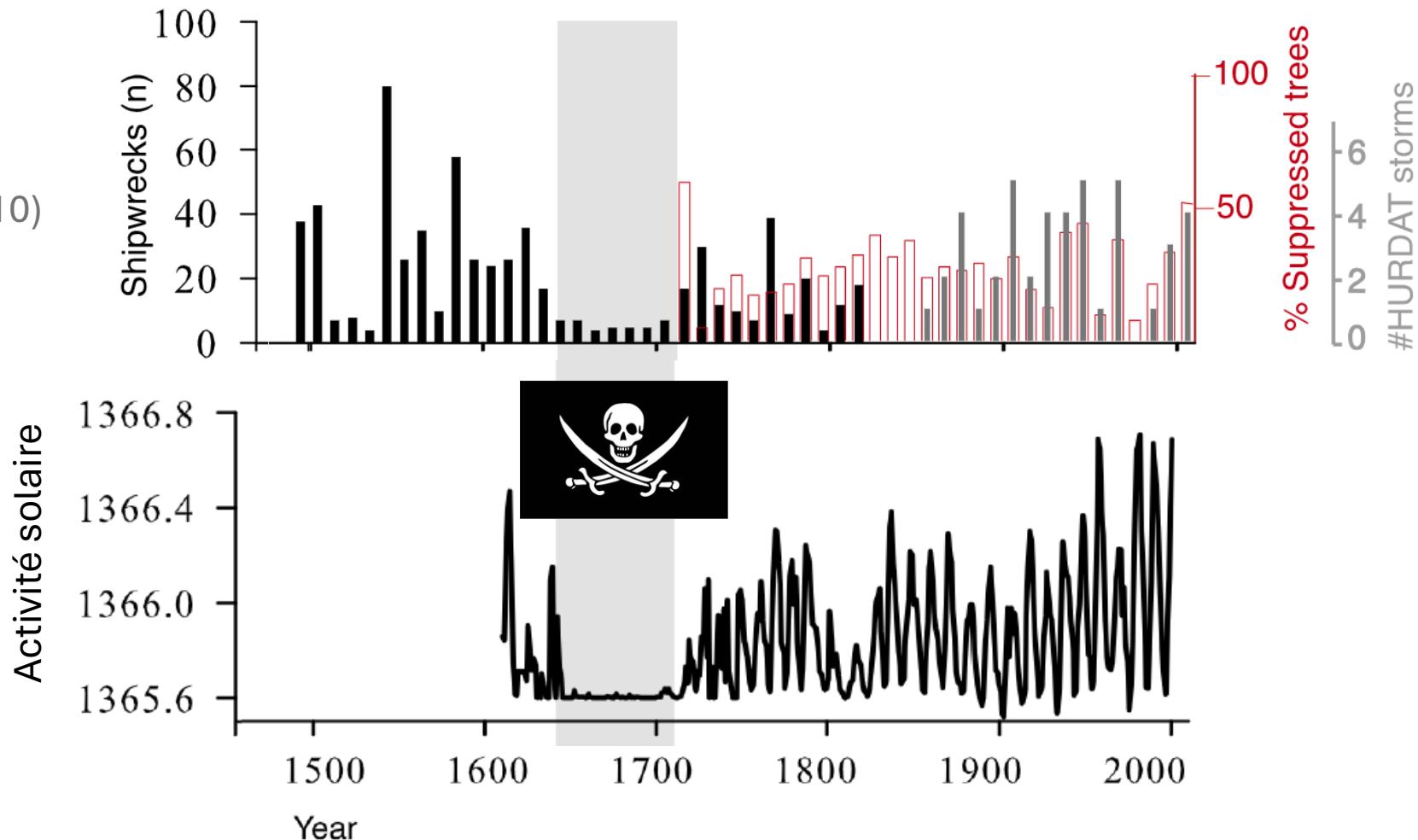
1707 CE

1715 eve

1733 event

1 cm

Nombre des naufrages (1495-1825)  
**Suppression (1707-2010)**  
Archives sur les cyclones (1851-2010)



1826

1827

1828

535

536

537

538

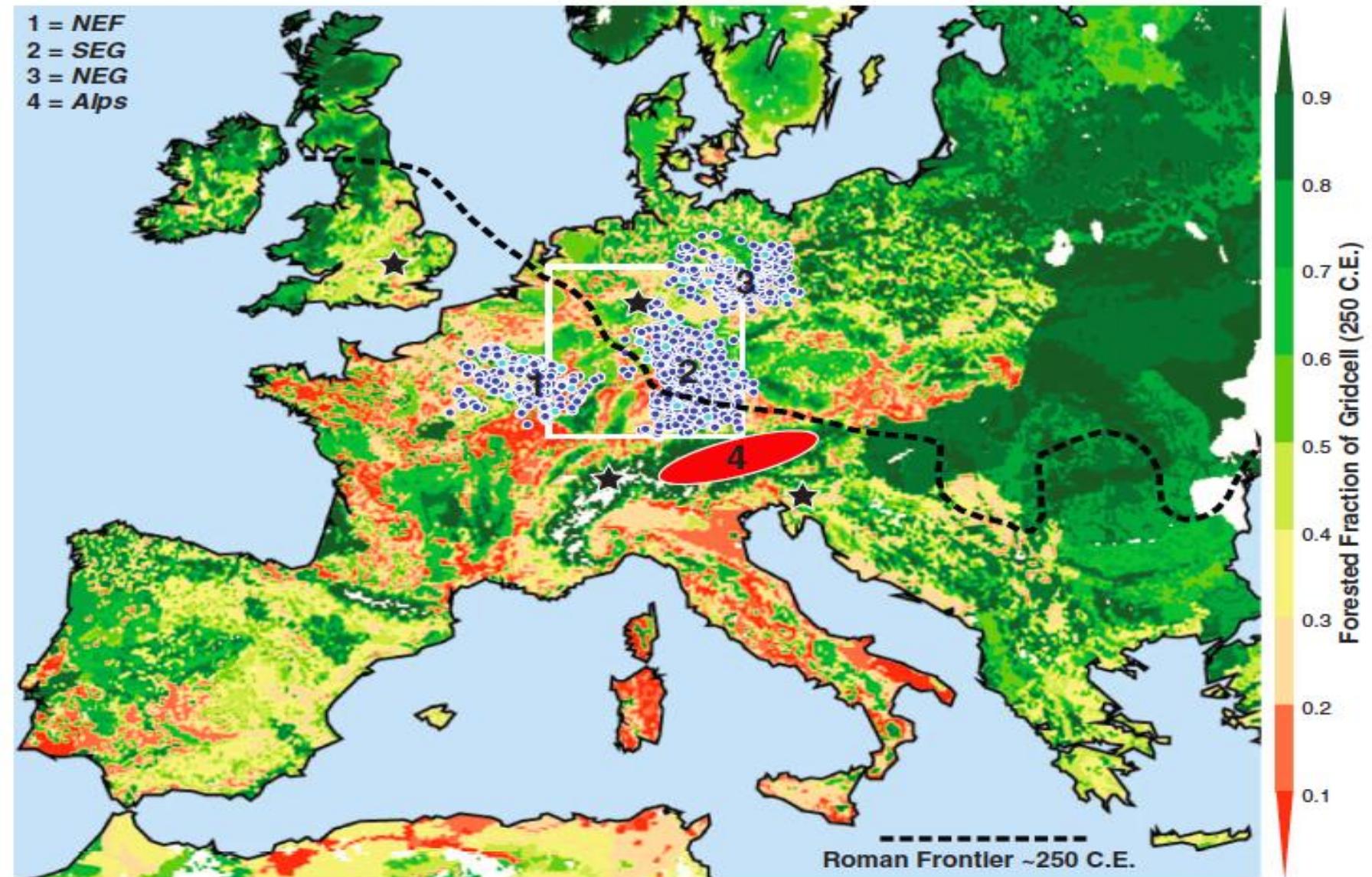
# L'histoire de l'Homme

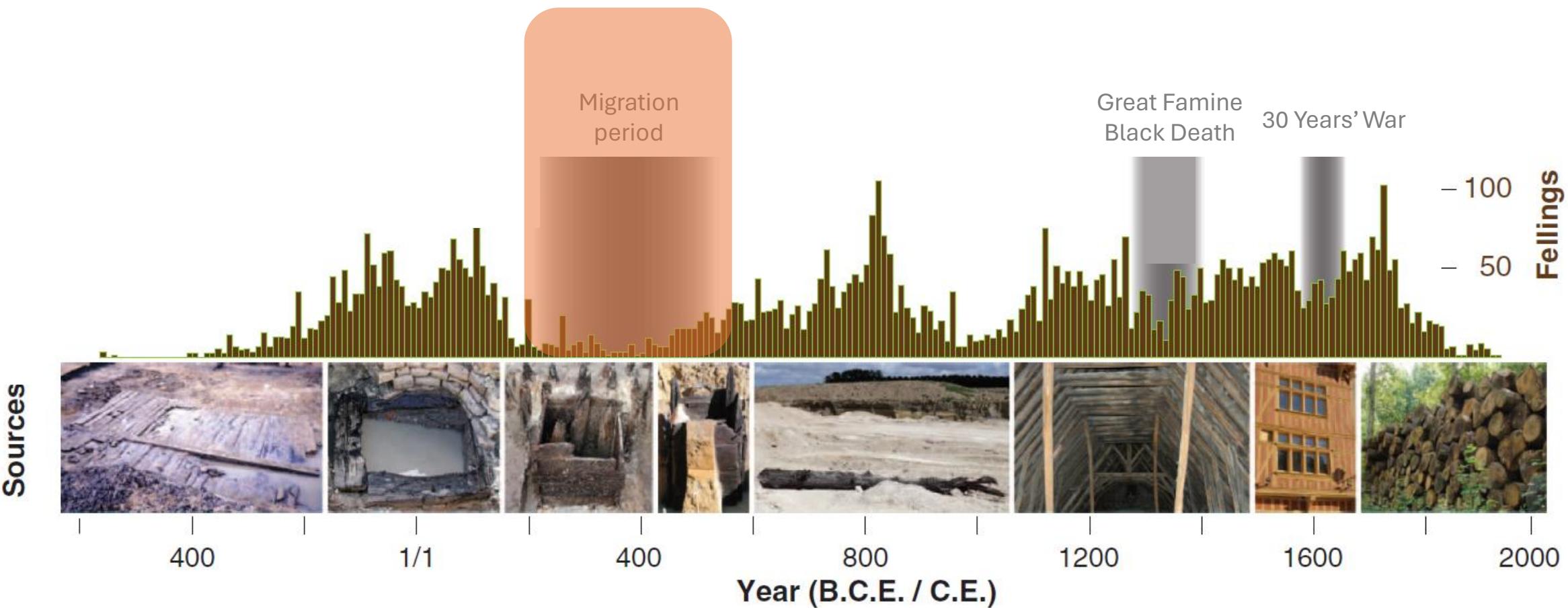
# LA CHUTE DE L'EMPIRE ROMAIN

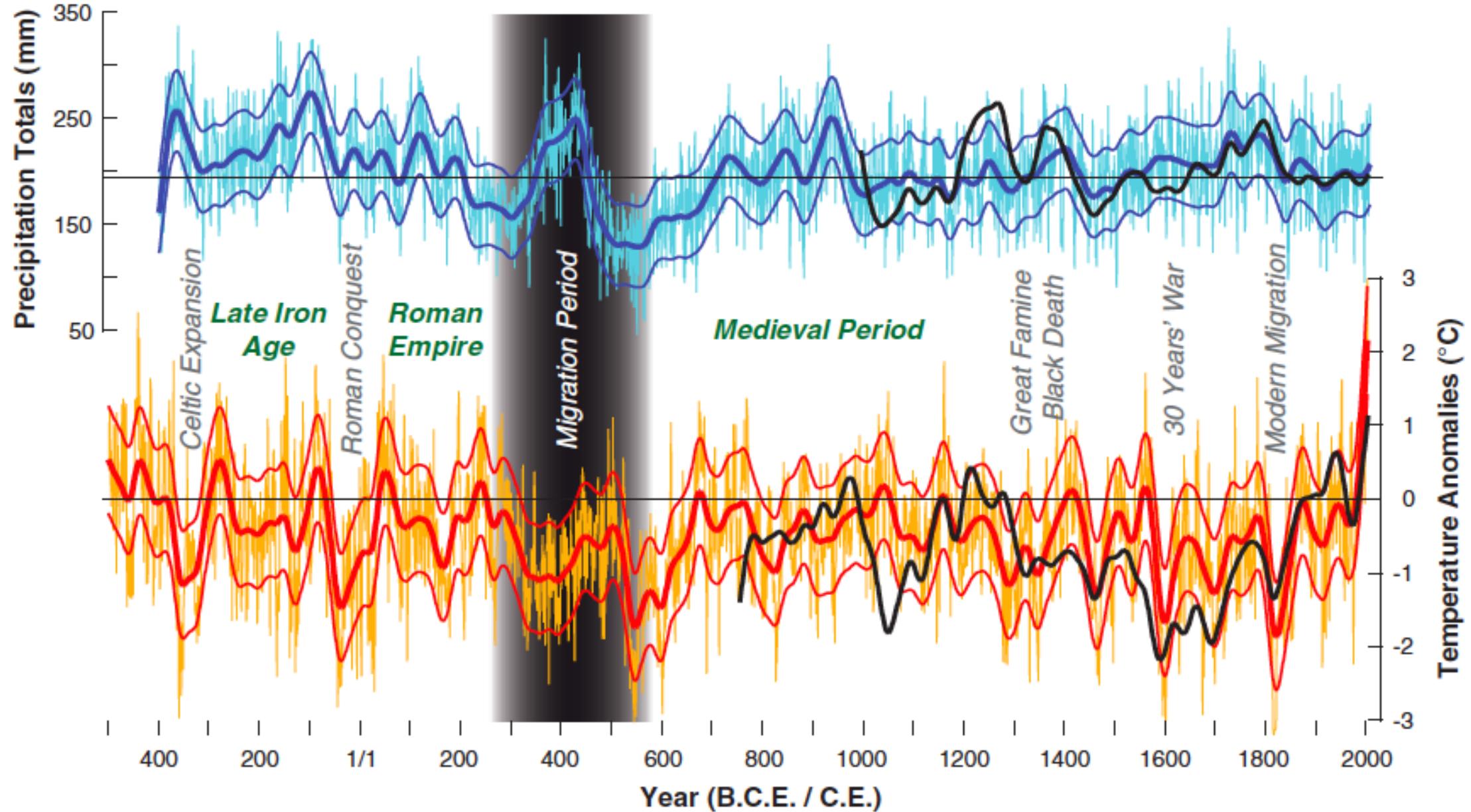
7284 chênes

1546 conifères

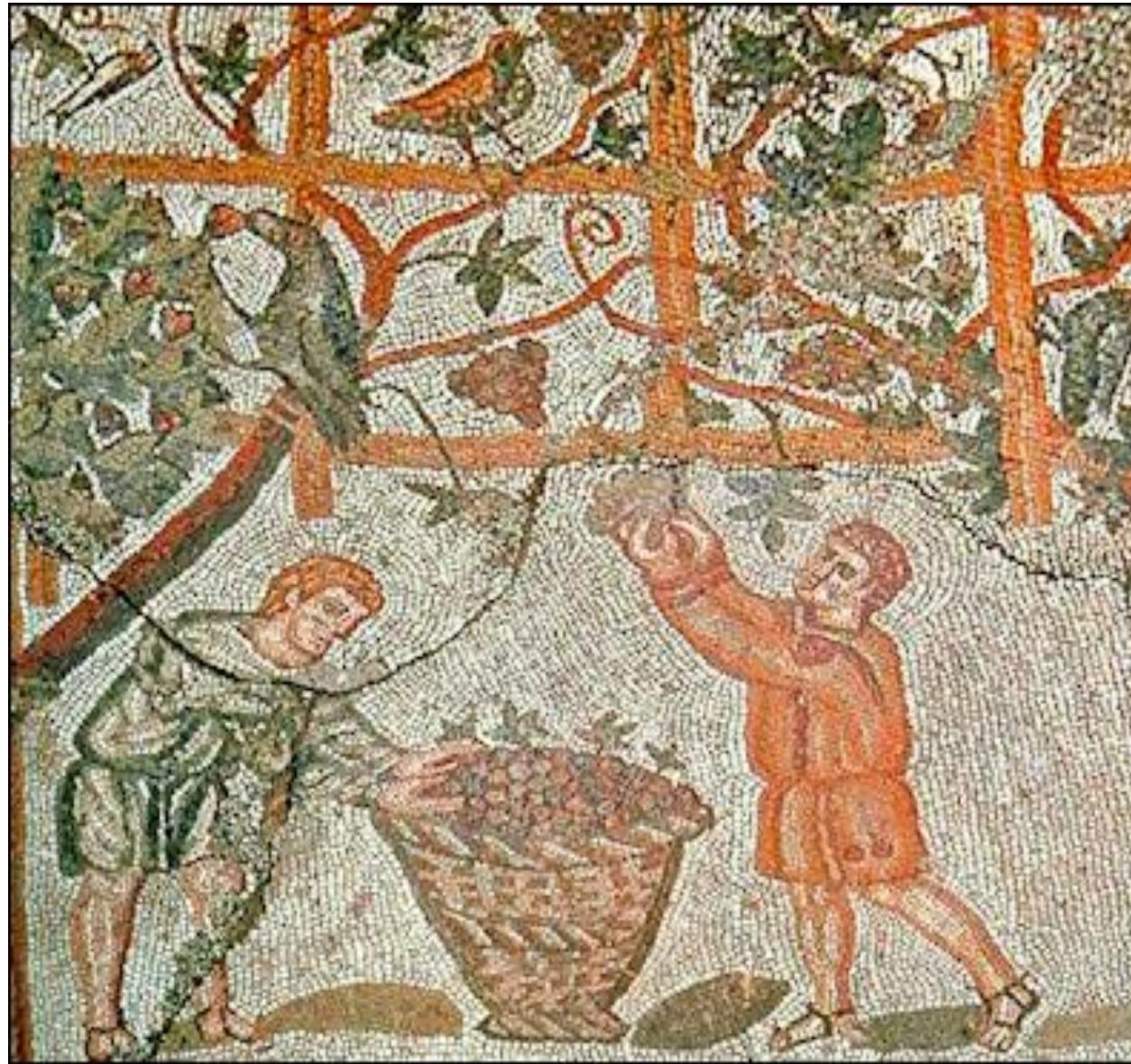
Modèle de déforestation



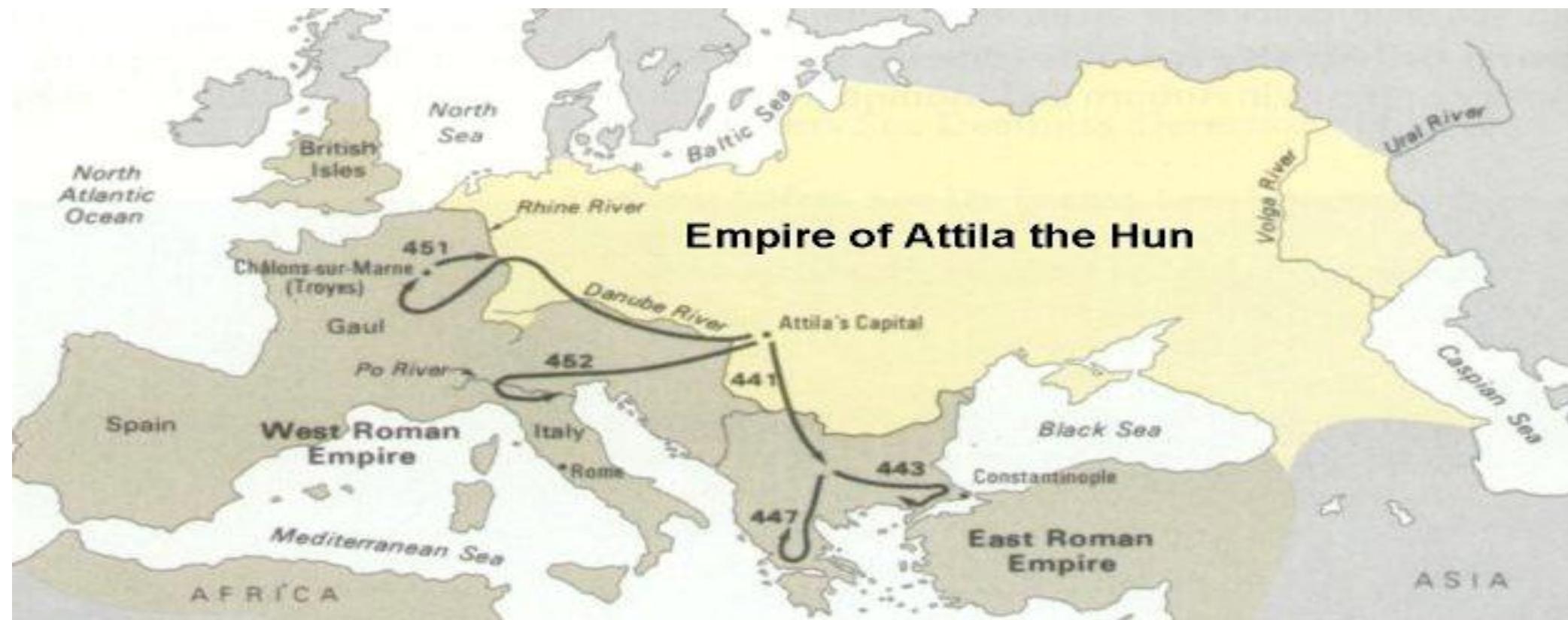




## Piste 1 – Productivité agricole

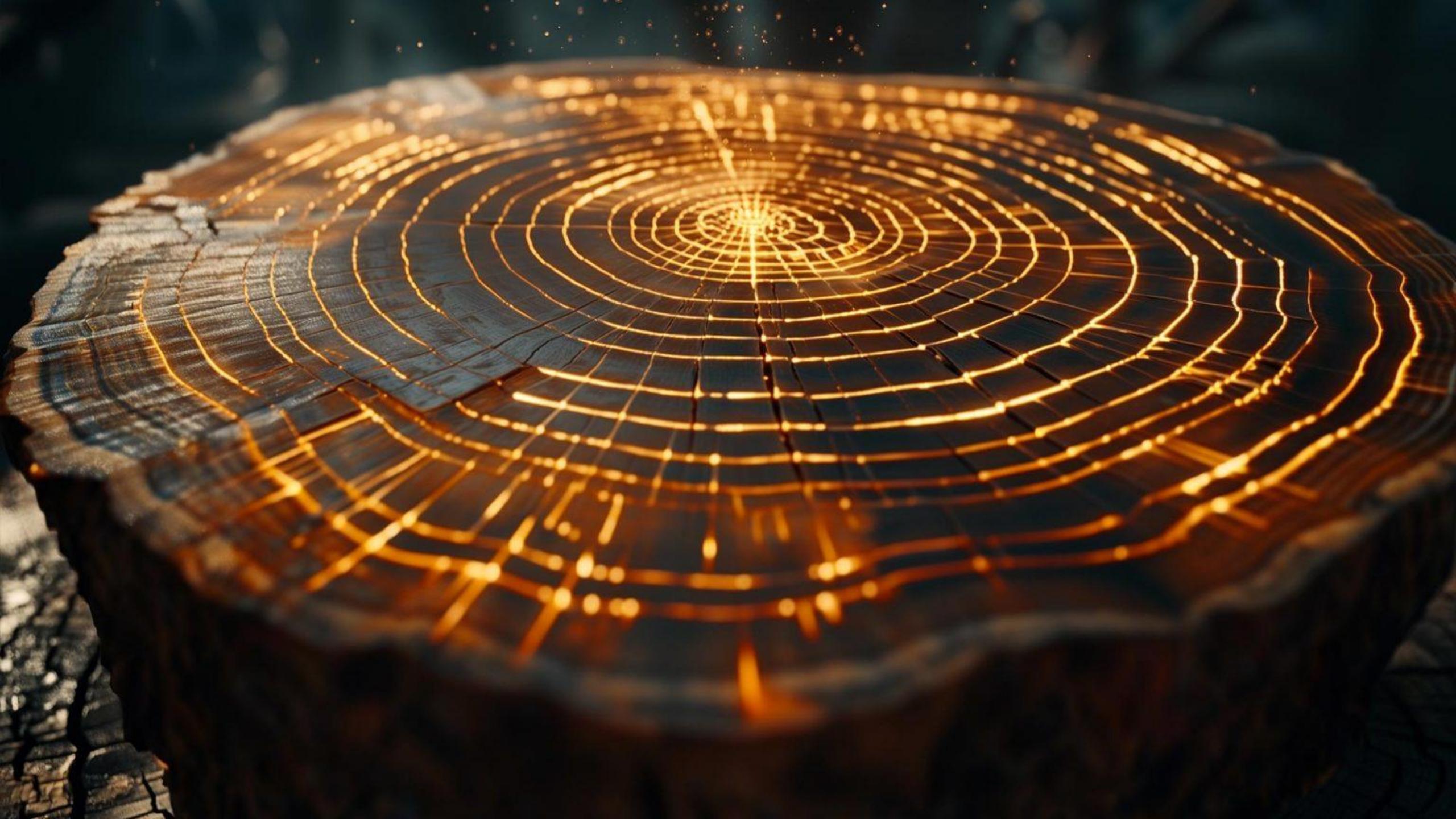


## Piste 2 – Invasions barbares



## Piste 3 – Les épidémies





# L'histoire du Feu



1923



© Alan Taylor

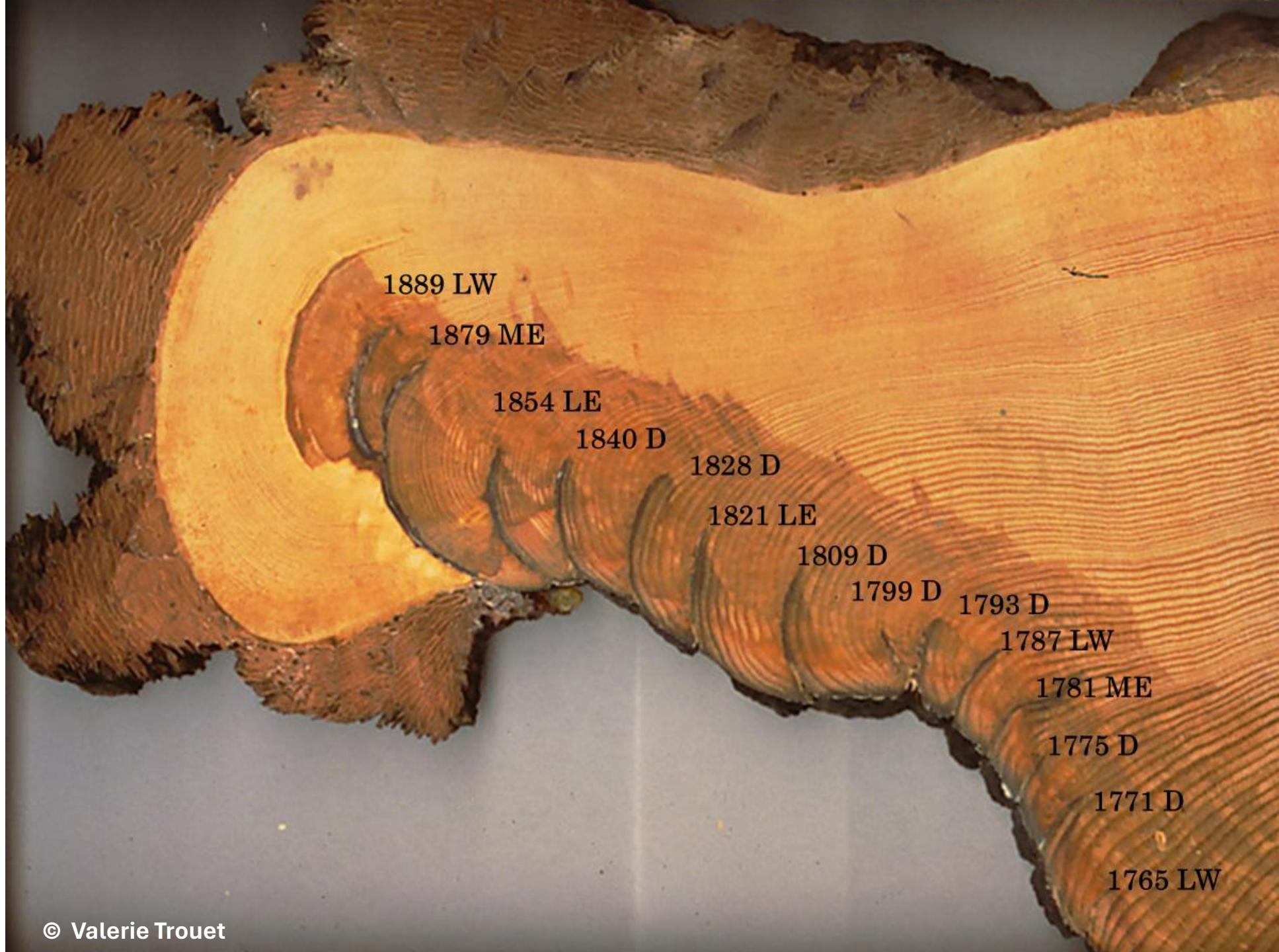


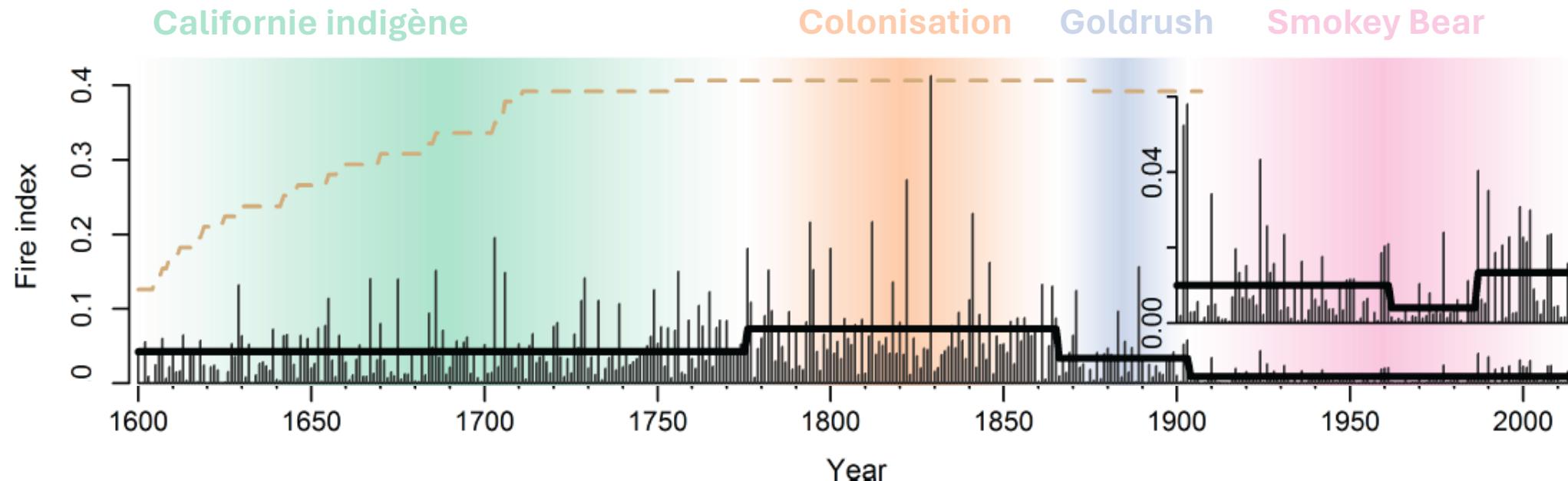
1998



© M. Raiston (AFP)









© Noah Berger, AP



SMOKEY  
**THE SMOKEY BEAR EFFECT**  
FIRE PREVENTION HAS DAMAGED OUR ENVIRONMENT

by Jamie Dickman

Prior to colonization, fires were frequent and many Indigenous communities used fire as a tool to shape their environments and control plant growth and habitats.

**Fire is a keystone process which was largely removed from North America.**

#### Fire-dependent Ecosystems

The *majority* of North America's ecosystems are fire adapted, meaning that their health and resilience is *dependent* on periodic fire.

- Prairie
- Savanna
- Woodland
- Chaparral Forest
- Coniferous Forest
- Some Wetlands & Swamps



#### Native Species depend on fire

Fire is necessary for the regeneration of many North American species, such as the Giant Sequoia and Lodgepole Pine. Restoring Fire = Restoring Biodiversity.



#### Fire improves soil quality

Burned underbrush recycles nutrients back to the soil and allows dormant seeds to sprout. Decades of fire suppression has left North American soil in a deficit.



#### Periodic burning prevents wildfires

Clearing the forest floor of debris with regular, low to medium-intensity fires decreases the likelihood of catastrophic wildfires by reducing flammable material.

#### ONLY YOU CAN **PREPVENT WILDFIRES** RESTORE OUR ECOSYSTEMS

- Demand governmental cooperation with tribes to restore traditional burning practices.
- Promote positive cultural change. *How do we view fire?* Like many things, fire can be good or bad. Used traditionally, it can be a great force for good.
- Support local adoption and implementation of Traditional Ecological Knowledge.

#### WE LIVE IN THE TIME OF THE SEVENTH FIRE

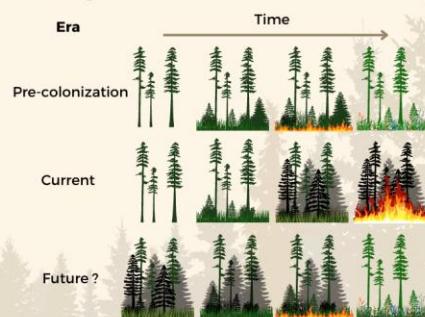
"We are the ones the ancestors spoke of, the ones who will bend to the task of putting things back together to rekindle the flames of the sacred fire, to begin the rebirth of a nation."

—Robin Wall Kimmerer, *Braiding Sweetgrass*

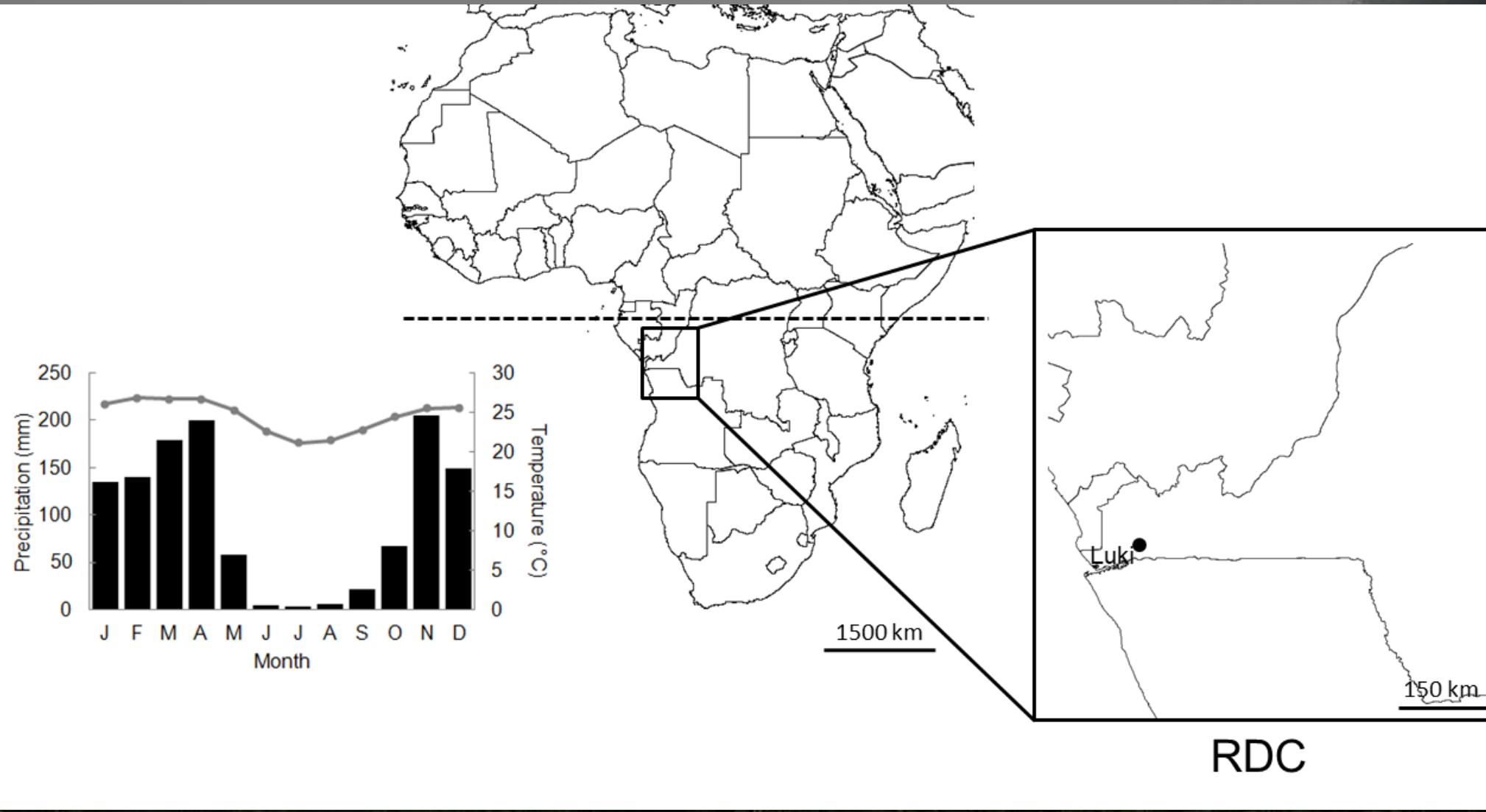
Protecting our environment in the face of climate change will require humanity's re-adoption of traditional ecological practices like prescribed burning.

© In our Nature 2023

#### History of North American Fire

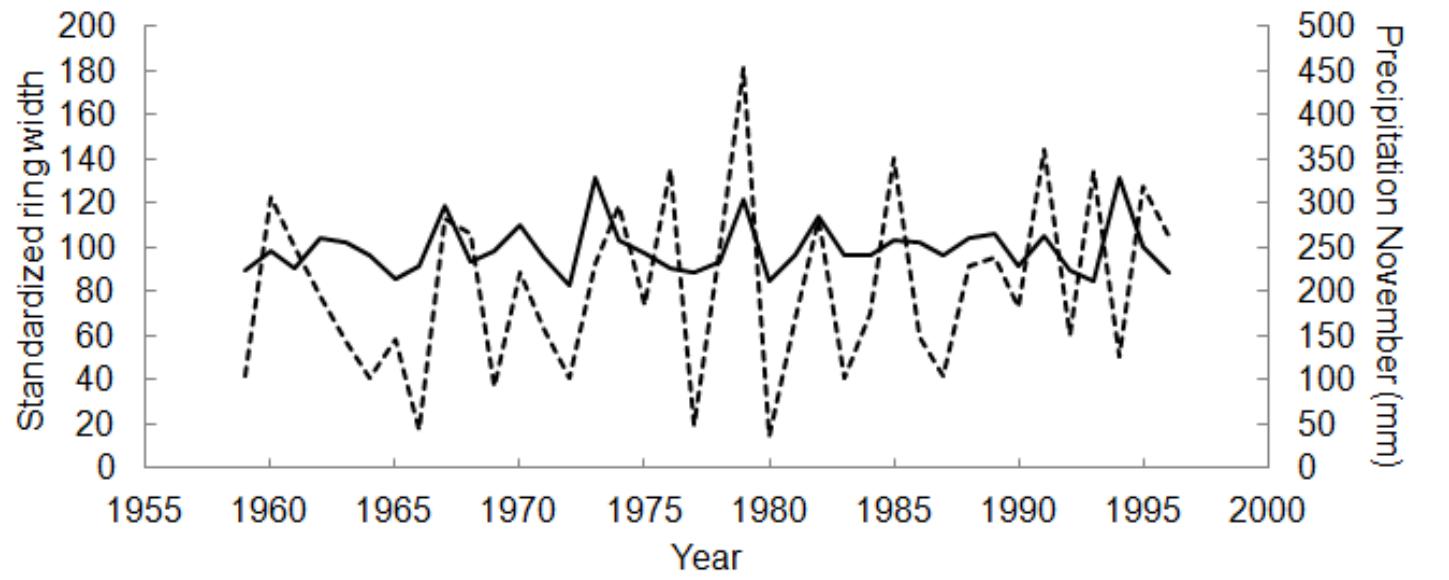


# L'histoire des Tropiques

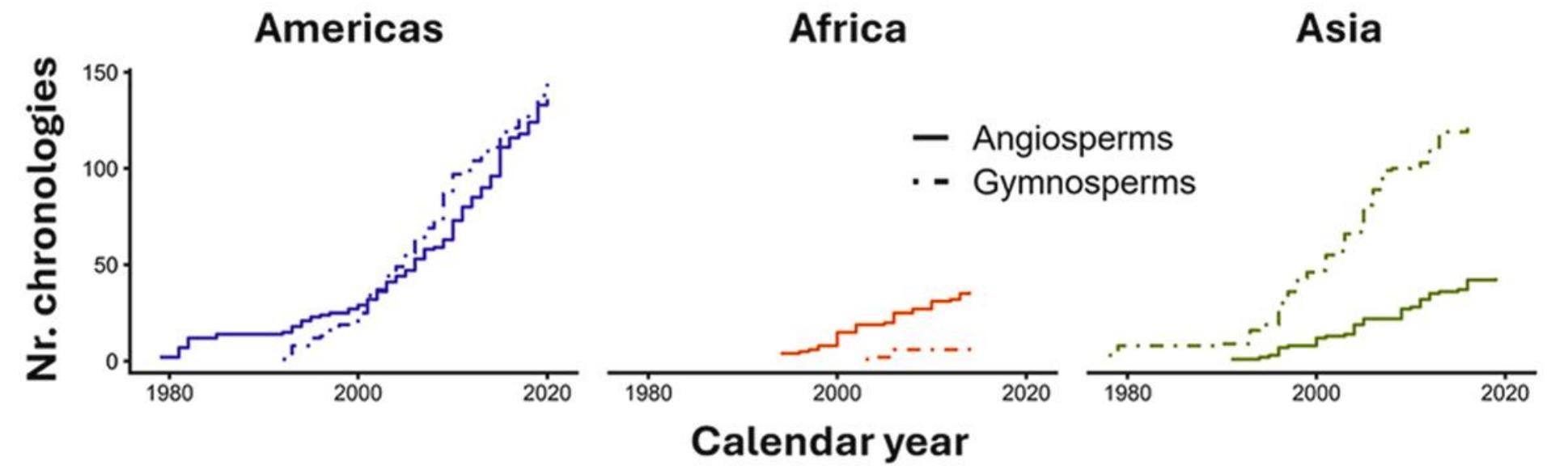




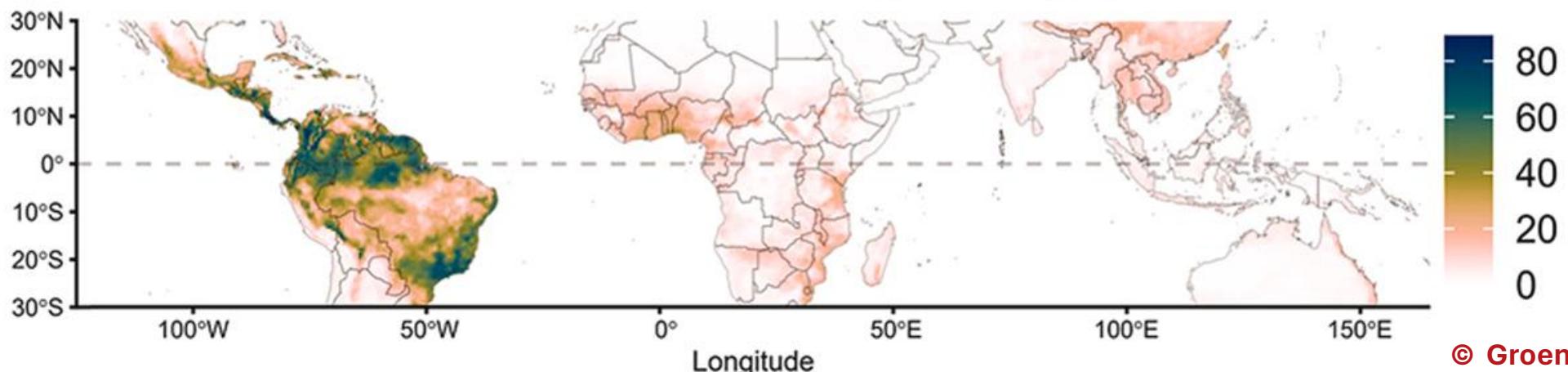




# Tropical tree rings for global-change studies



Potential number of tree ring forming species



L'histoire continue...



« La nature ne fait pas d'erreurs dans ses archives.  
Parfois, nous ne les comprenons pas bien.  
C'est là que réside le problème. »

*Murray & Bryson, 1977, Climate of Hunger*