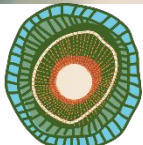
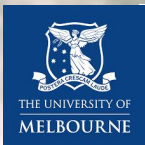


Echar leña al fuego

¿Los incendios en el sureste de Australia siempre han sido tan intensos?

Anthony Romano

School of Geography, Earth & Atmospheric Sciences, University of Melbourne, Australia



Australian Research Council Centre of Excellence for
Indigenous
and Environmental Histories and Futures



ANSTO



Incendios catastróficos

What the numbers tells us about a catastrophic year of wildfires



Russia's 2021 Wildfires Now Largest in Its Recorded History

Updated: Sep. 7, 2021



The fires have been especially catastrophic in the Siberian republic of Sakha.

Sergei Filinin / TASS

New Mexico Fire Now State's Largest Ever, Resort Evacuated: What You Need to Know



Eric Mack
May 16, 2022 2:03 p.m. PT

5 min read



Silver City Hotshots fight the Hermit's Peak-Calf Canyon Fire during the night shift on May 9. US Forest Service

Smoke from Siberia wildfires reaches north pole in historic first

Occurrence is first since records began and comes as Russian weather officials warn blazes are worsening



Canada wildfire season is now the worst on record

3 days ago

Amazon rainforest facing most devastating fires ever seen

Comment



EXCLUSIVE

Harrison Jones

Friday 6 Aug 2021 4:01 pm



515

SHARES



Farmers often set fire to areas of rainforest to allow cattle to graze and crops to be planted (Picture: AFP)

Greek wildfires a major ecological catastrophe, PM says

By ELENA BECATOROS August 13, 2021



Incendios catastróficos

Mega, giga, terafire: New language to capture monster blazes



By Peter de Kruijff
May 24, 2022 — 4:00am

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As Australia and other countries battle more intense and frequent fires in a changing climate, trying to comprehend their scale and ferocity and capture their historic abnormality, we have seen the rise of terms such as “megafire”.

Despite being around as a phrase since 2005, there has been little consensus on what exactly a megafire is.



Firefighters watch on at blaze near Margaret River in Western Australia in December. [APES](#)

Climate Scientists Warn of a 'Global Wildfire Crisis'

Worsening heat and dryness could lead to a 50 percent rise in off-the-charts fires, according to a United Nations report.

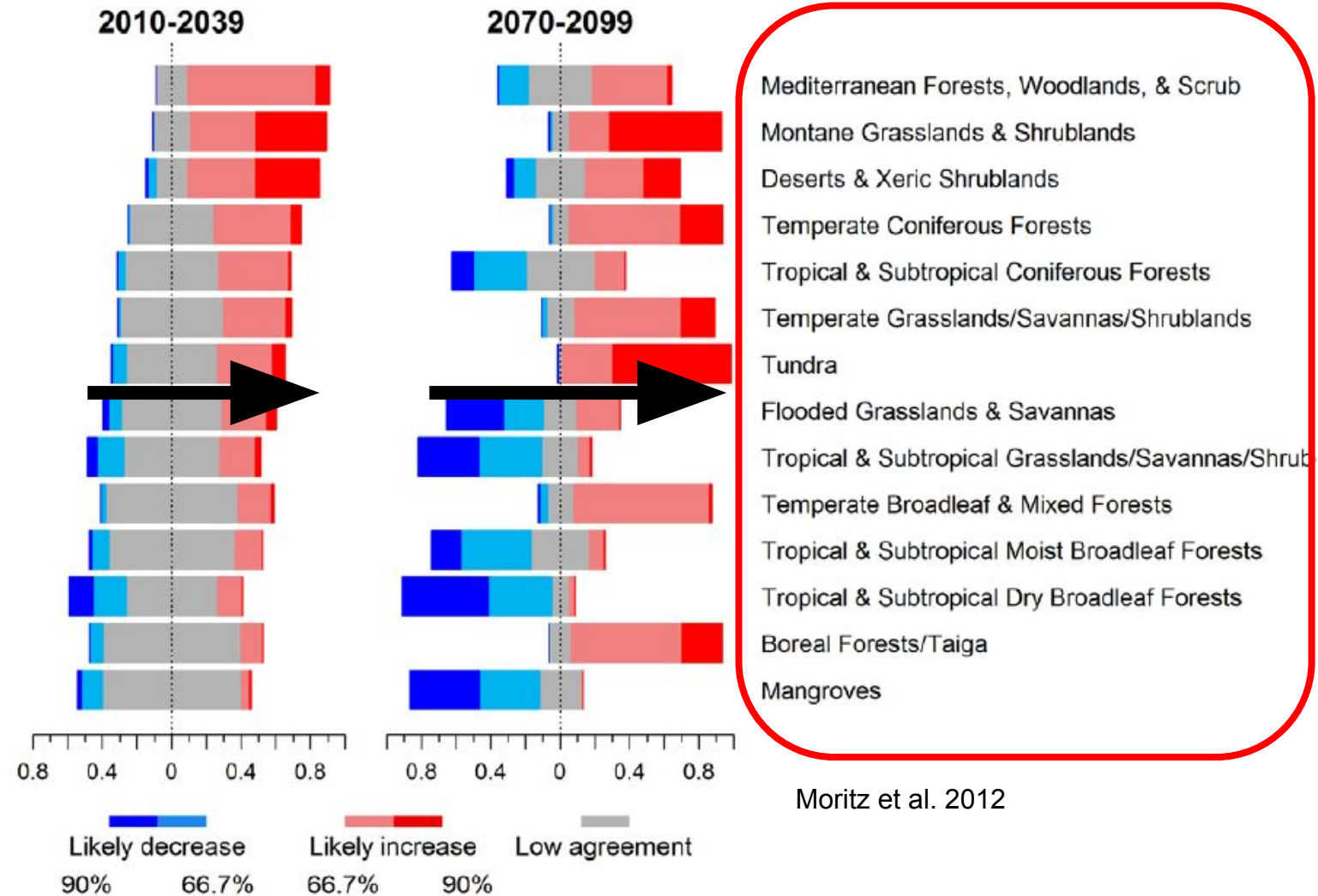
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'El equivalente ígneo de una era glacial': La humanidad entra en una nueva era de fuego.

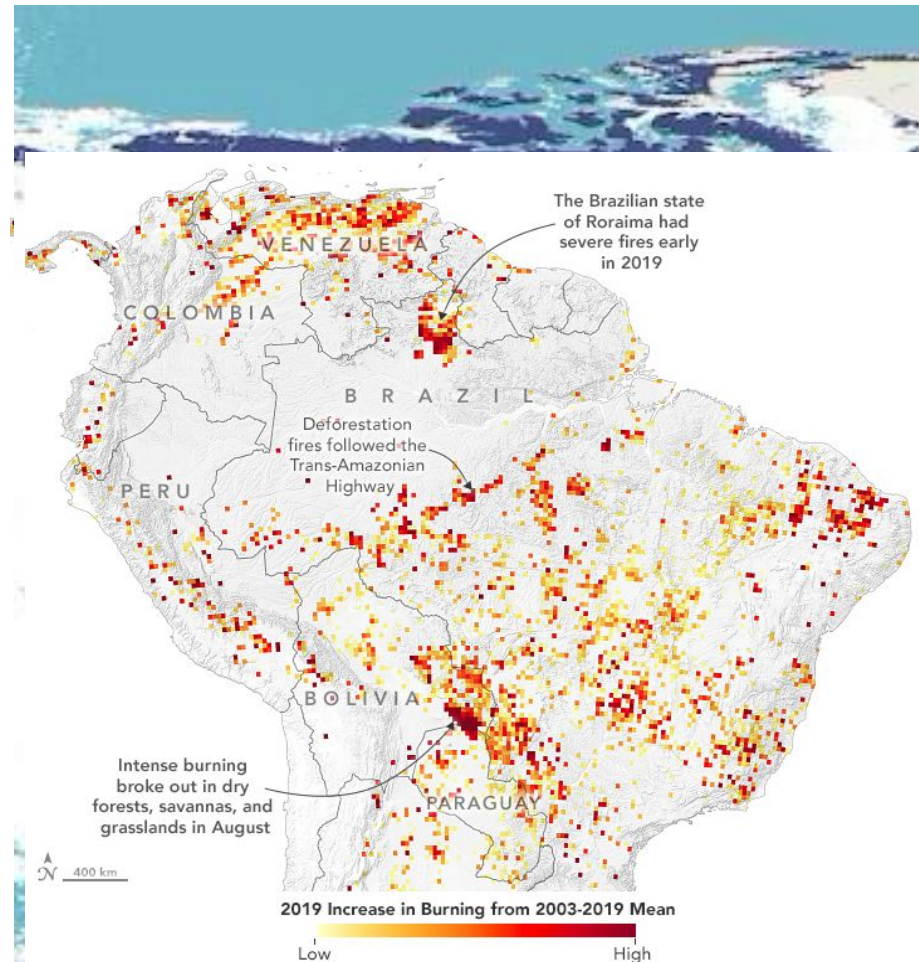
By [Shannon Osaka](#), [Michael E. Miller](#) and Beatriz Ríos

Updated June 10, 2023 at 10:51 a.m. EDT | Published June 10, 2023 at 7:13 a.m. EDT



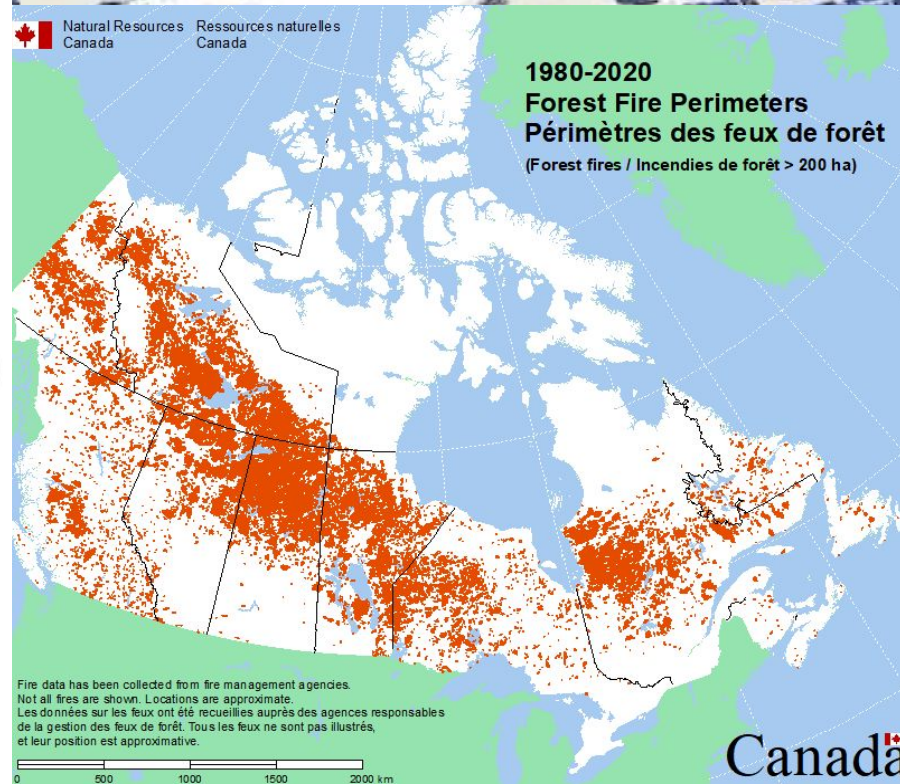
Incendios catastróficos

Tierras ancestrales indígenas

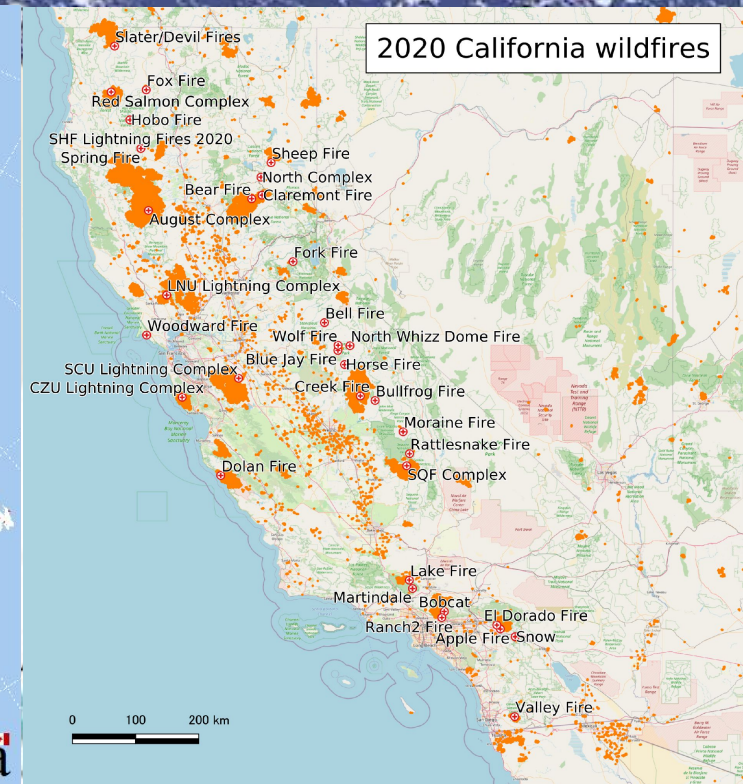


NASA Earth Observatory 2020

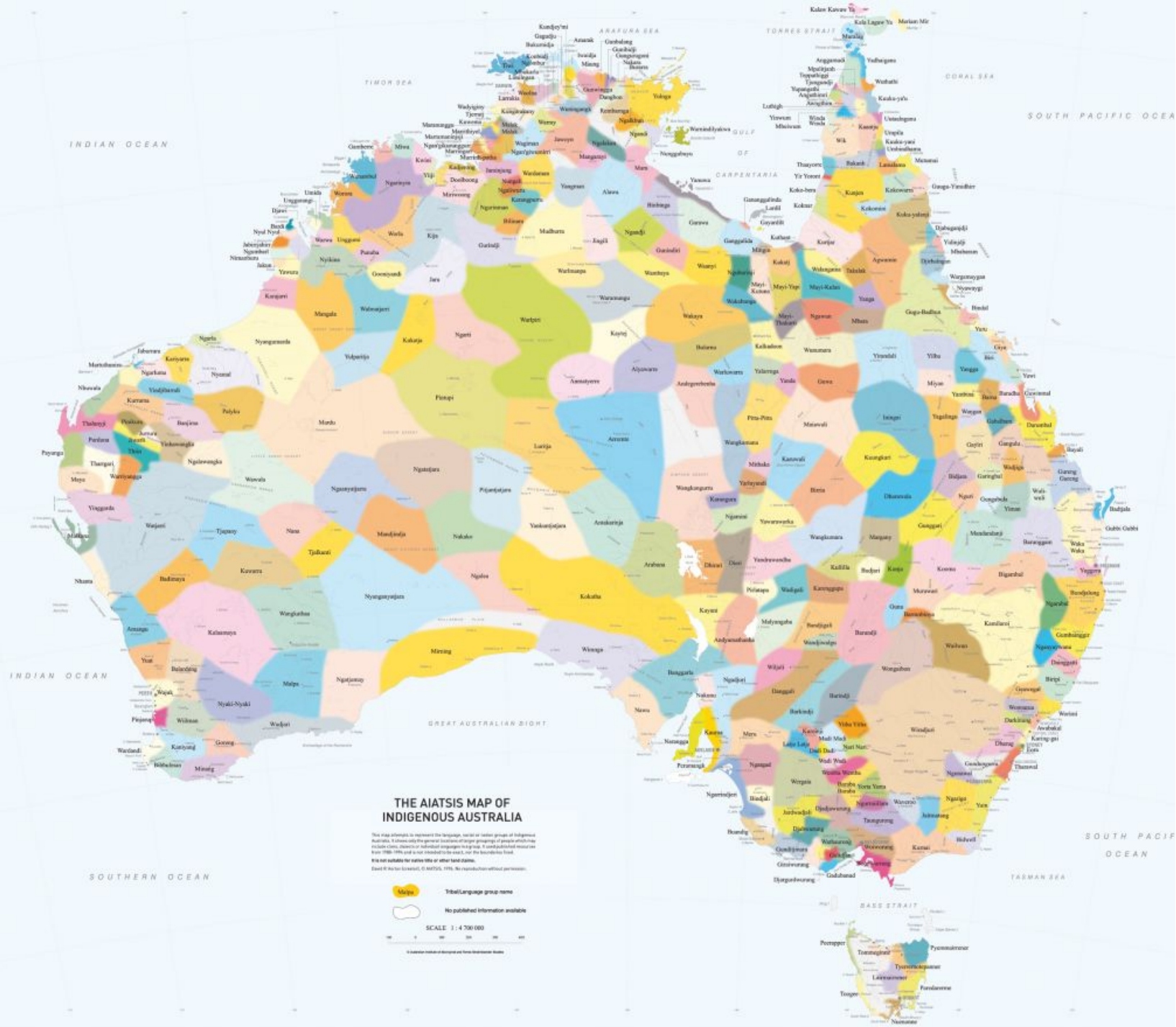
Watson et al, Nature (2018)



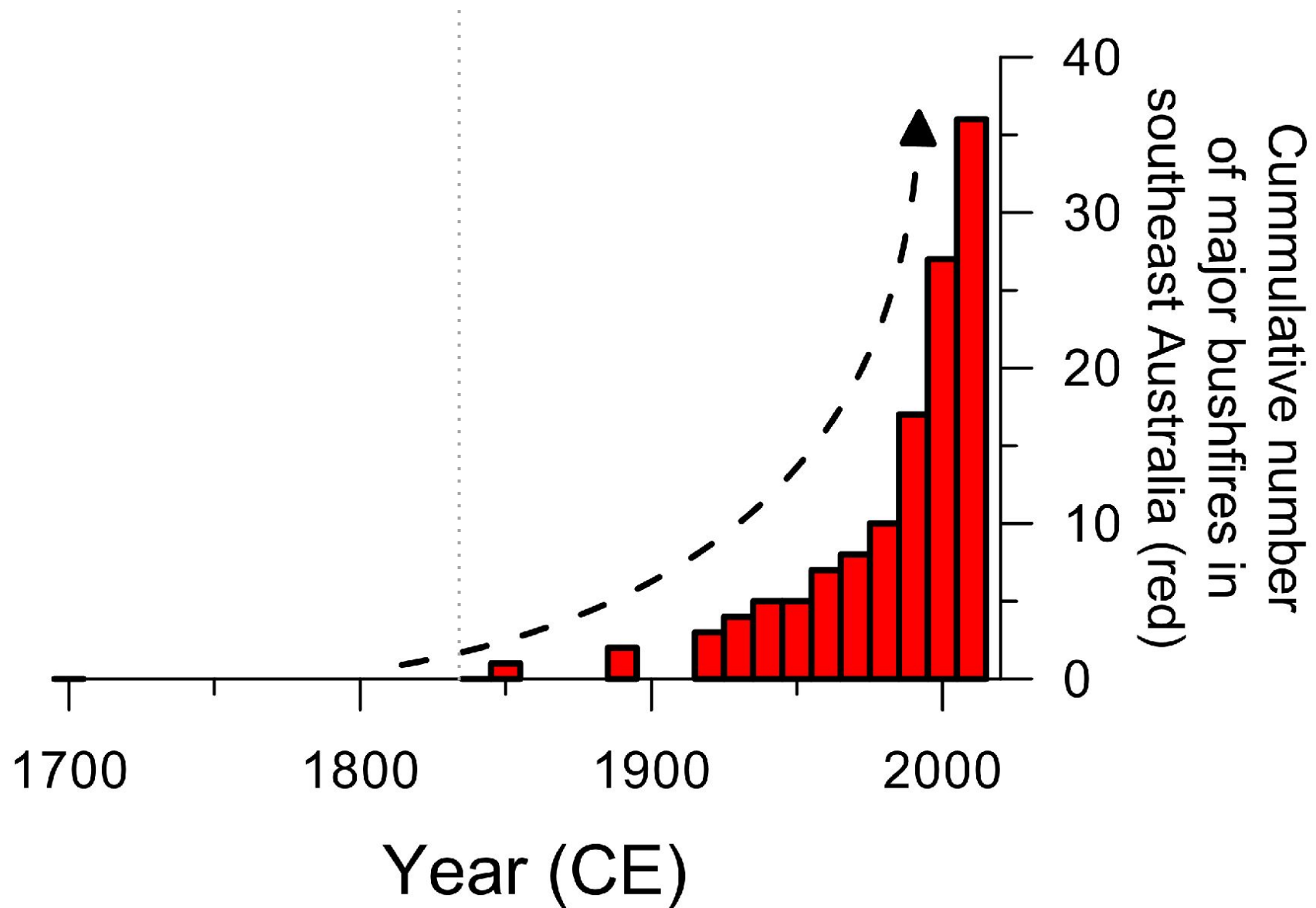
Natural Resources Canada 2020



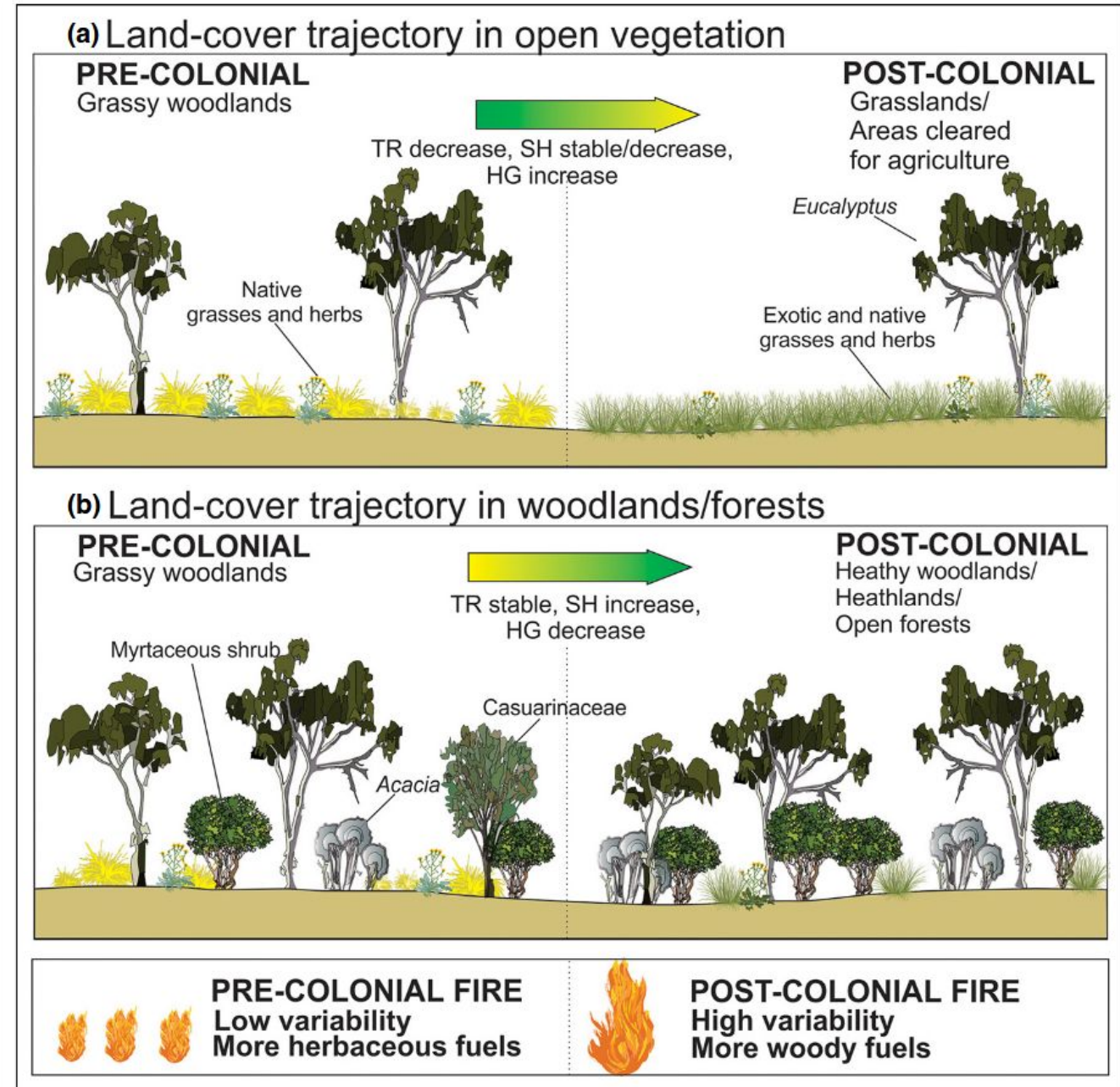
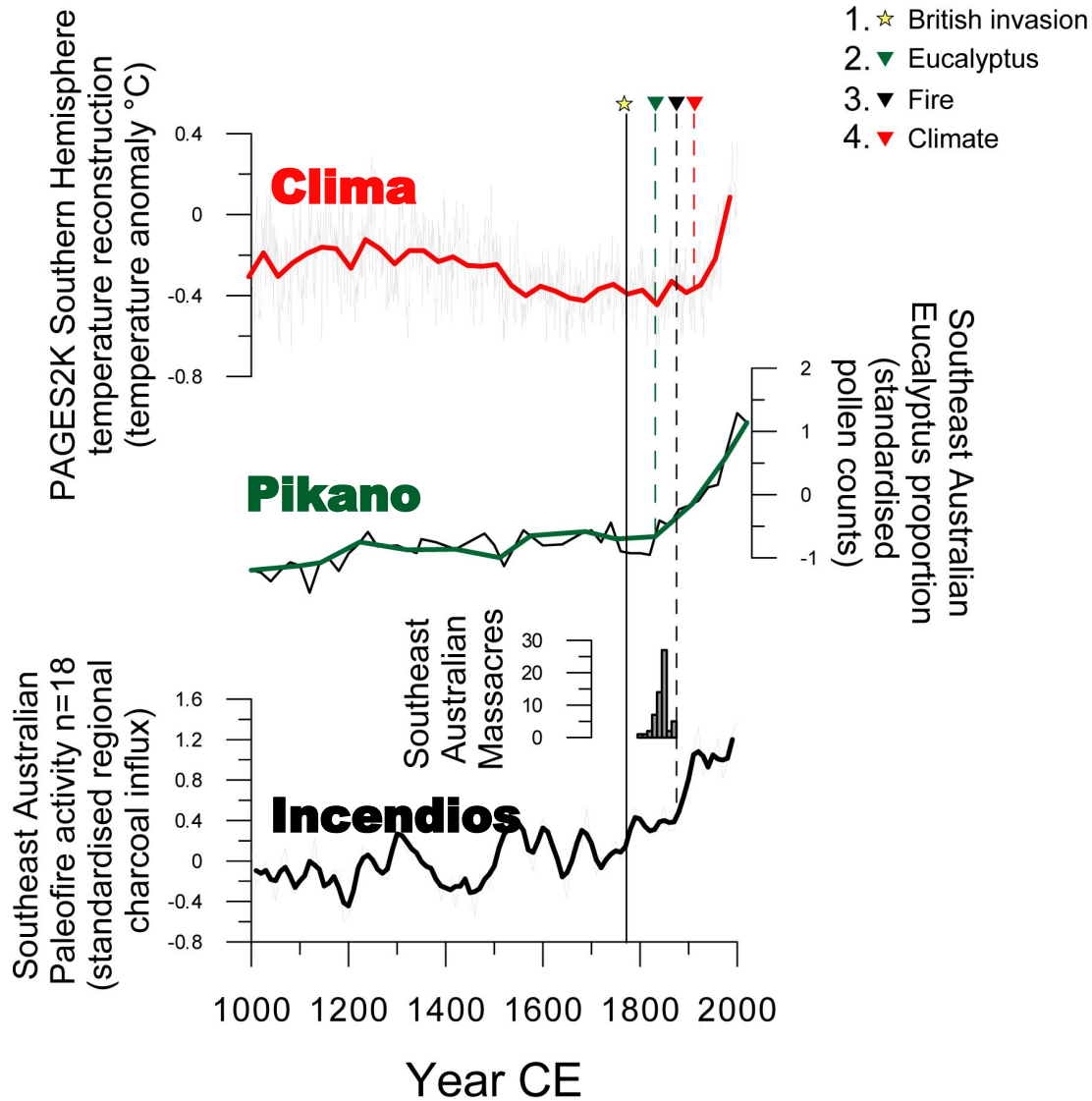
USDA Forest Service 2020



Desentrañando el continente



Cambios en el sureste de Australia tras la invasión



¿Quemar o no quemar?

Cultural burning, cultural misappropriation, over-simplification of land management complexity, and ecological illiteracy

By David Lindenmayer  and Elle Bowd

Wildfire approaches bring enhanced risks

Renata Libonati argues in a World View article that megafires are here to stay, and that widespread prescribed burns are needed to manage the risk (*Nature* 627, 10; 2024). We agree on the problem, but disagree on the solutions.

In some woody ecosystems, disturbances, such as logging, thinning and even prescribed burning, can disrupt ecological controls on fire that maintained forests long before people arrived. Disturbances might provide short-term benefits, but at the cost of long-term increases in flammability that last for decades

Fuel reduction burning reduces wildfire severity during extreme fire events in south-eastern Australia

L. Collins^{a,b,*}, R. Trouvé^c, P.J. Baker^c, B. Cirulus^d, C.R. Nitschke^c, R.H. Nolan^{e,f}, L. Smith^g, T.D. Penman^d

Mechanical treatments and prescribed burning can reintroduce low-severity fire in southern Australian temperate sclerophyll forests

James M. Furlaud^{a,b,*}, Grant J. Williamson^a, David M.J.S. Bowman^a

Identifying and managing disturbance-stimulated flammability in woody ecosystems

David Lindenmayer^{1,*}  and Phil Zylstra²

Thinning with follow-up burning treatments have increased effectiveness at reducing severity in California's largest wildfire

Kristen L. Shive^{a,*}, Michelle Coppoletta^b, Rebecca Bewley Wayman^c, Alison K. Paulson^d, Kristen N. Wilson^e, John T. Abatzaglou^f, Saba J. Saberi^c, Becky Estes^b, Hugh D. Safford^{c,g}

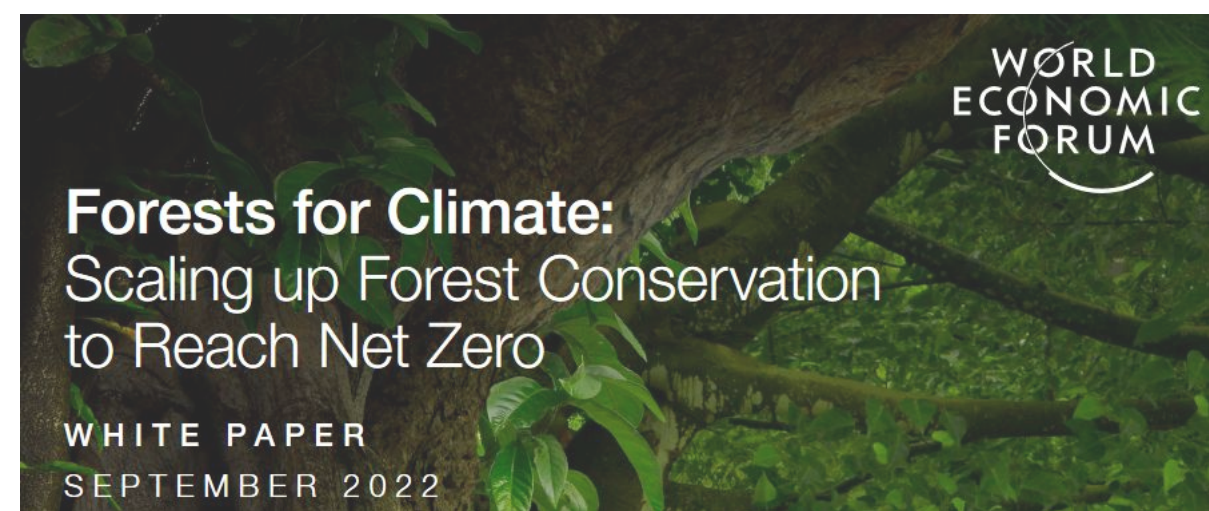
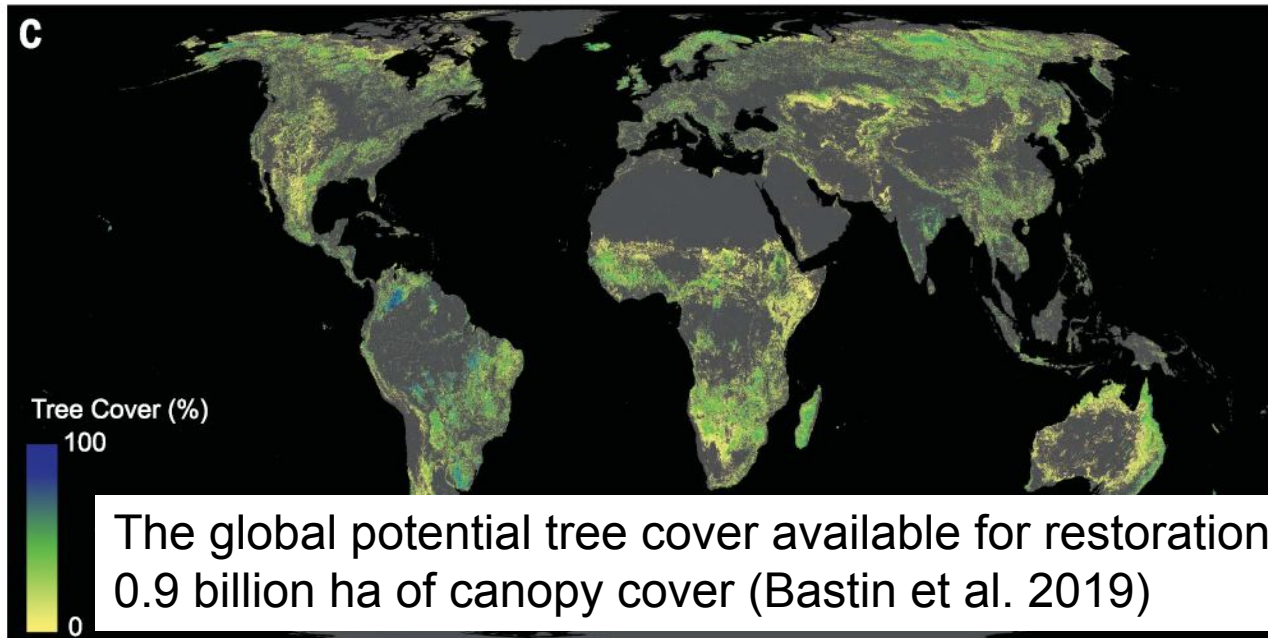
Megafires are here to stay – and must be managed

It's not just global warming that's making wildfires more destructive. Better land management is needed to mitigate the risks.

La solución: ¿más árboles?

The global tree restoration potential

The restoration of trees remains among the most effective strategies for climate change mitigation. We mapped the global potential tree coverage to show that 4.4 billion hectares of canopy cover could exist under the current climate. Excluding existing trees and agricultural and urban areas, we found that there is room for an extra 0.9 billion hectares of canopy cover, which could store 205 gigatonnes of carbon in areas that would naturally support woodlands and forests. This highlights global tree restoration as one of the most effective carbon drawdown solutions to date. However, climate change will alter this potential tree coverage. We estimate that if we cannot deviate from the current trajectory, the global potential canopy cover may shrink by ~223 million hectares by 2050, with the vast majority of losses occurring in the tropics. Our results highlight the opportunity of climate change mitigation through global tree restoration but also the urgent need for action.



Stopping native forest logging key to getting to net zero

14 OCTOBER 2022



El eucalipto es inflamable

Australia fires: Have gum trees made the bushfires worse?

🕒 19 January 2020

Portugal's 'killer forest'

Deadly wildfire calls into question Portugal's embrace of eucalyptus.



When it comes to eucalyptus canopies, wildfires burn through them furiously.



▲ A forest in flames during the deadly wildfire near the village of Mega Fundeira | Miquel Riopa/AFP via Getty Images

SCIENCE & TECHNOLOGY

How Eucalyptus Trees Stoke Wildfires

Eucalypts are now cosmopolitan, spread around the world through imperialism and globalization. Unfortunately, they're also highly flammable.

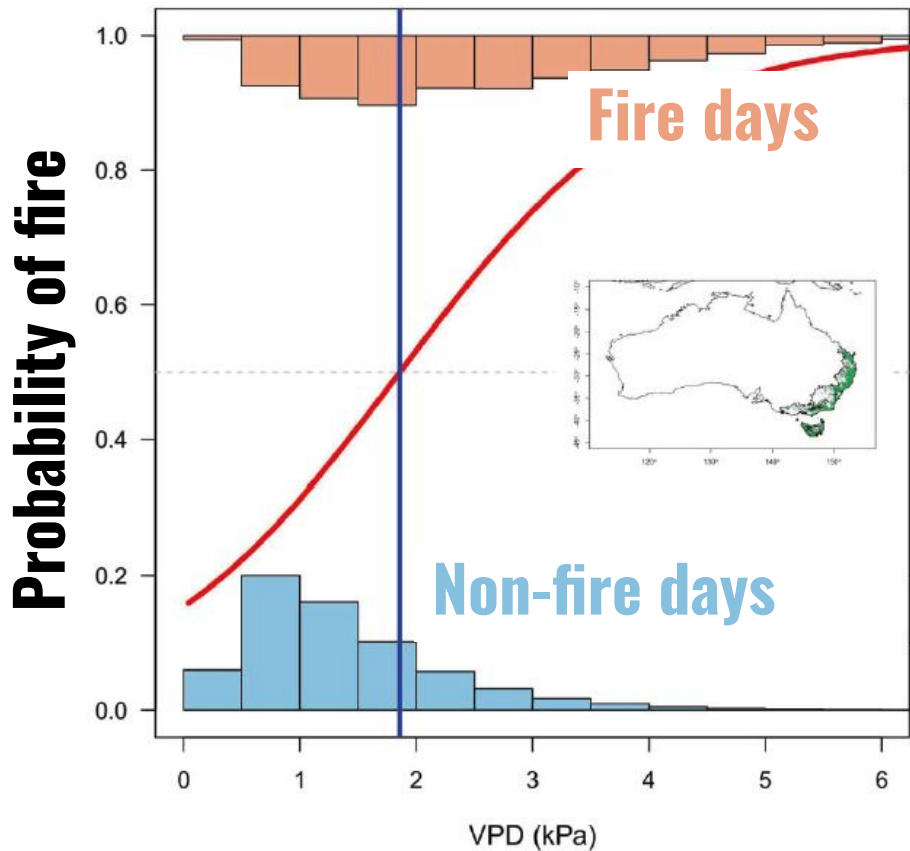
SCIENCE

Eucalyptus: California Icon, Fire Hazard and Invasive Species



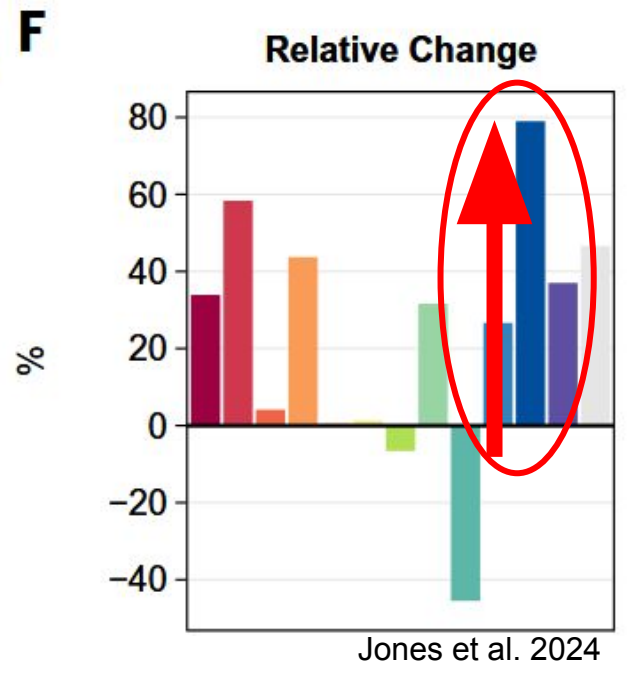
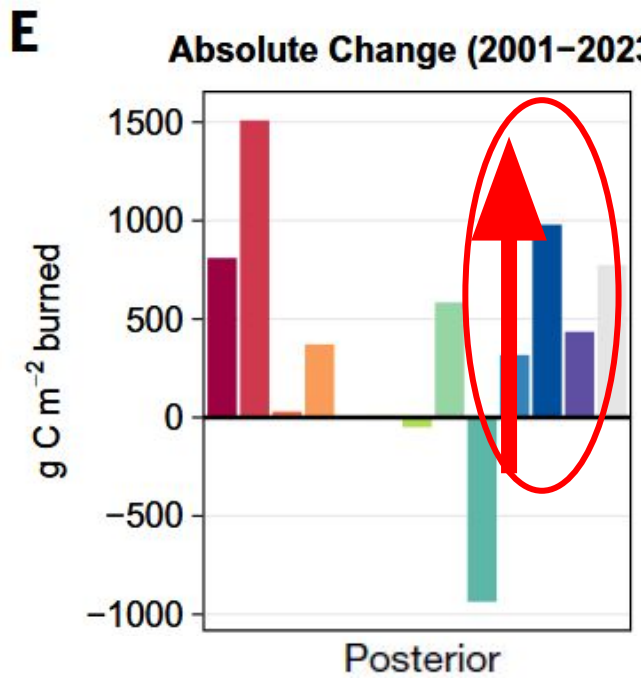
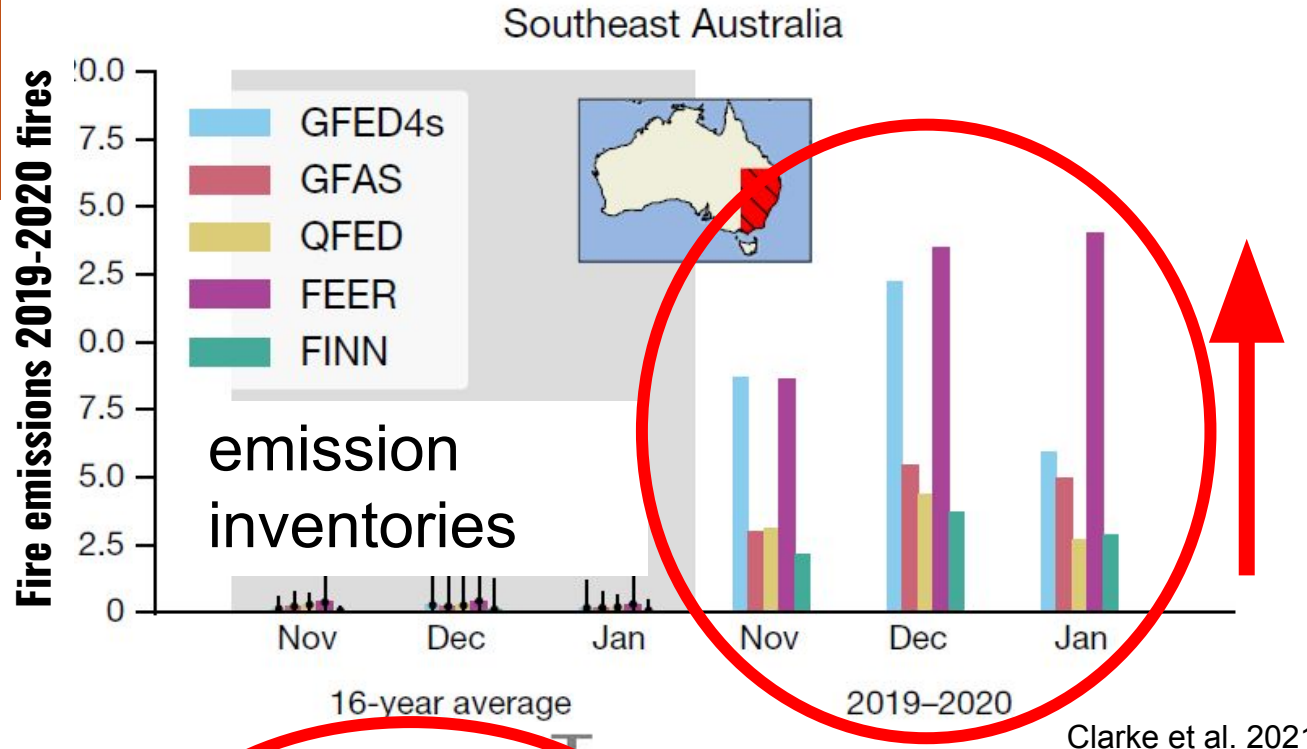
Almacenamiento de carbono ≠ seguridad

Australia
Temperate Broadleaf & Mixed Forests

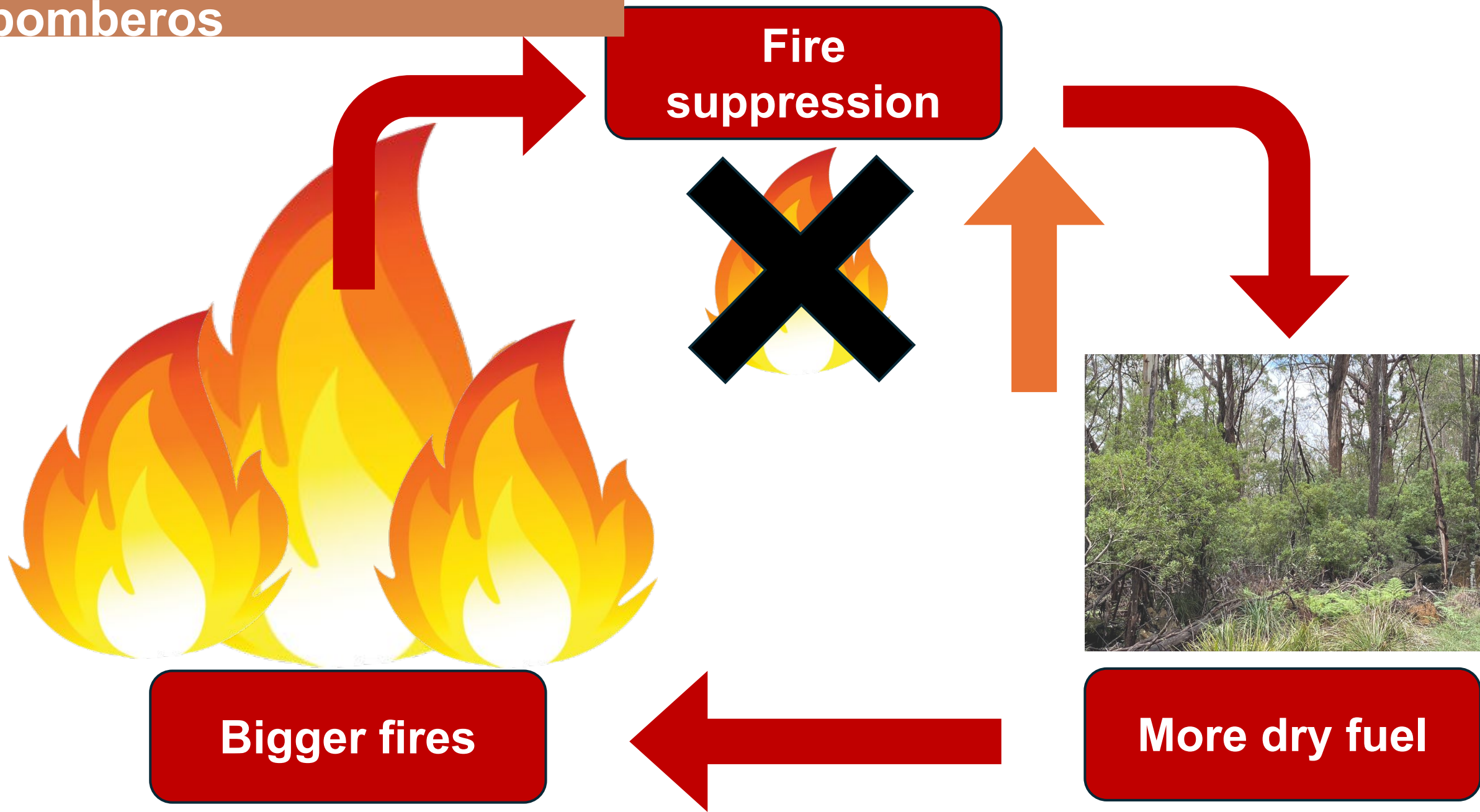


Forests across SE Aus will burn even when wet.

Clarke et al. 2021



La trampa de los bomberos



Quema cultural

Pasto quemado – bimbayi (Wiradjuri)

“Mis antepasados me llevaron para enseñarme cómo usaban el fuego... Ahora, en esos mismos lugares, donde el trigo y el ganado [de los colonos] no se han asentado, las acacias han brotado en abundancia. En algunos lugares, han crecido diez mil por acre donde antes crecían

hierbas comestibles.”

Tara June Winch – *The Yield* (2020)

Lighting a pathway: Our obligation to culture and Country

By Jack Pascoe,  Matthew Shanks, Bruce Pascoe, John Clarke, Teagan Goolmeer,  Bradley Moggridge, Bhiamie Williamson, Maddison Miller, Oliver Costello and Michael-Shawn Fletcher

Commentary

Fighting *with* fire: Historical ecology and community-based approaches to fire management, stewardship, and ecosystem resilience

S. Yoshi Maezumi,^{1,8} Michael-Shawn Fletcher,^{2,3,4} Hugh Safford,^{5,6} and Patrick Roberts^{1,7}

What should happen to native forests when logging ends? Ask Victoria's First Peoples

Published: May 30, 2023 3:25pm AEST



Cultural burn by Gunikurnai

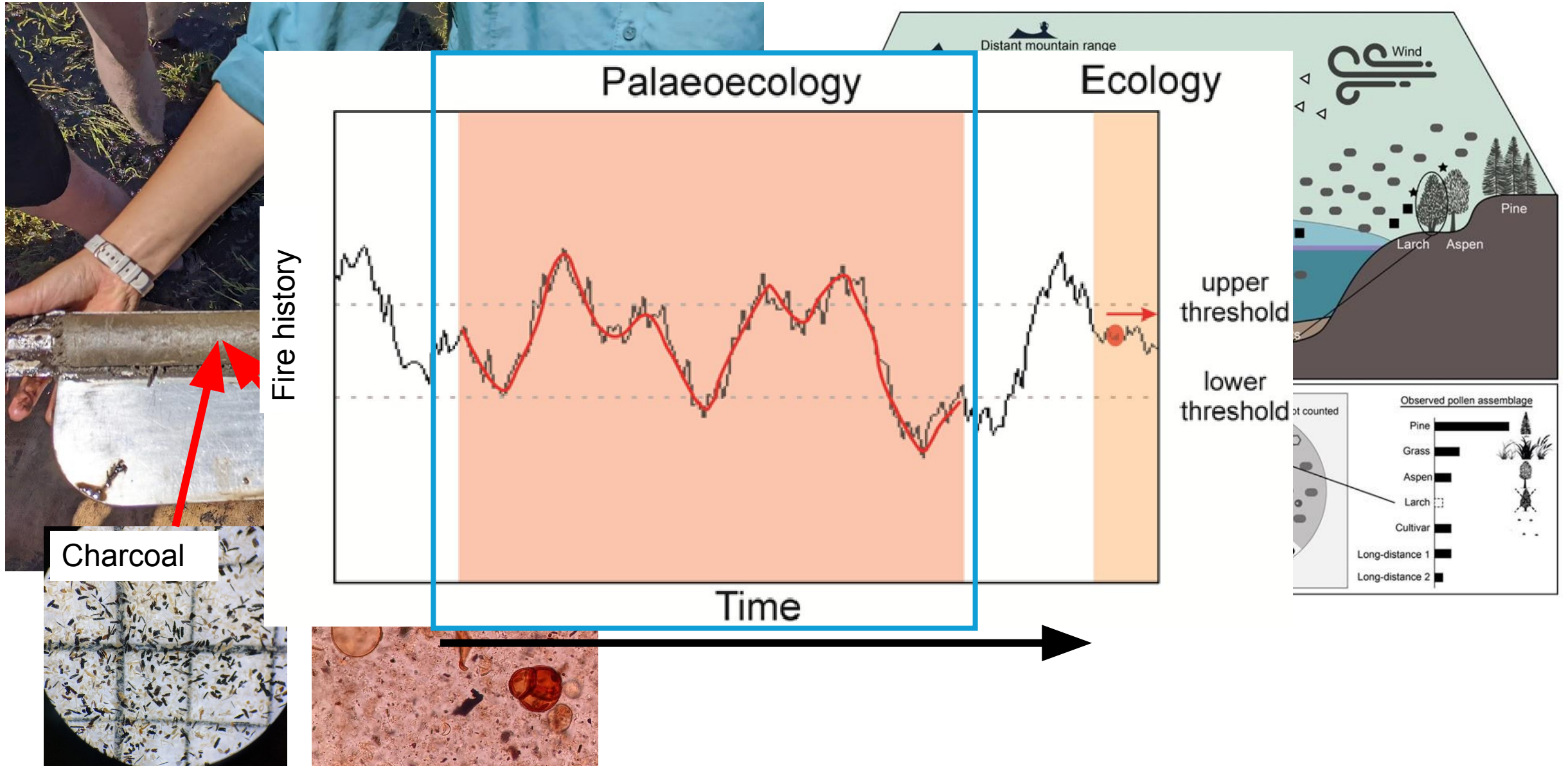


Prescribed burn by Parks VIC

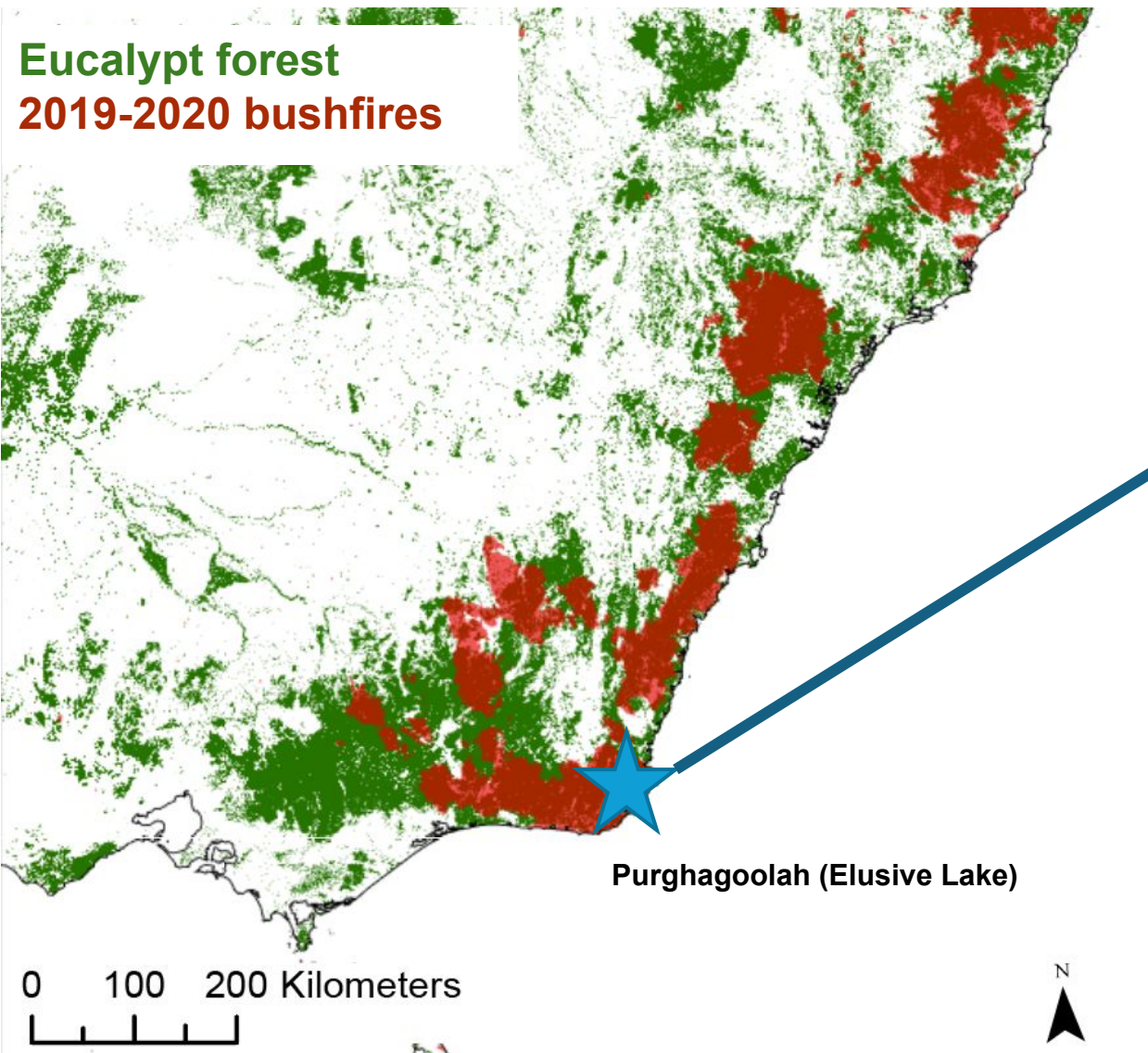
Cultural burning isn't just important to Indigenous culture – it's essential to Australia's disaster management

Published: October 24, 2024 6:03am AEDT

Información del tiempo profundo



Sitio de estudio

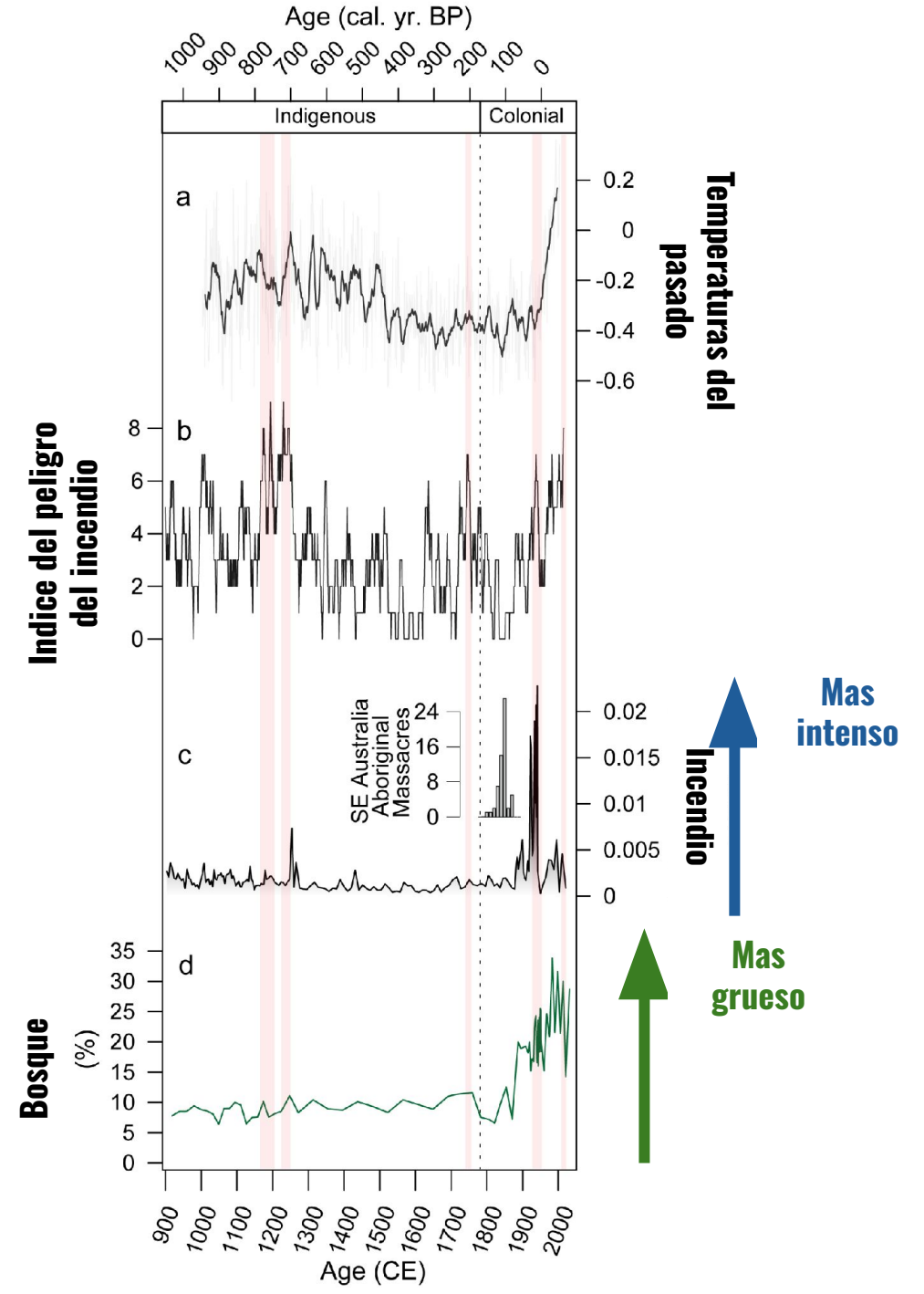
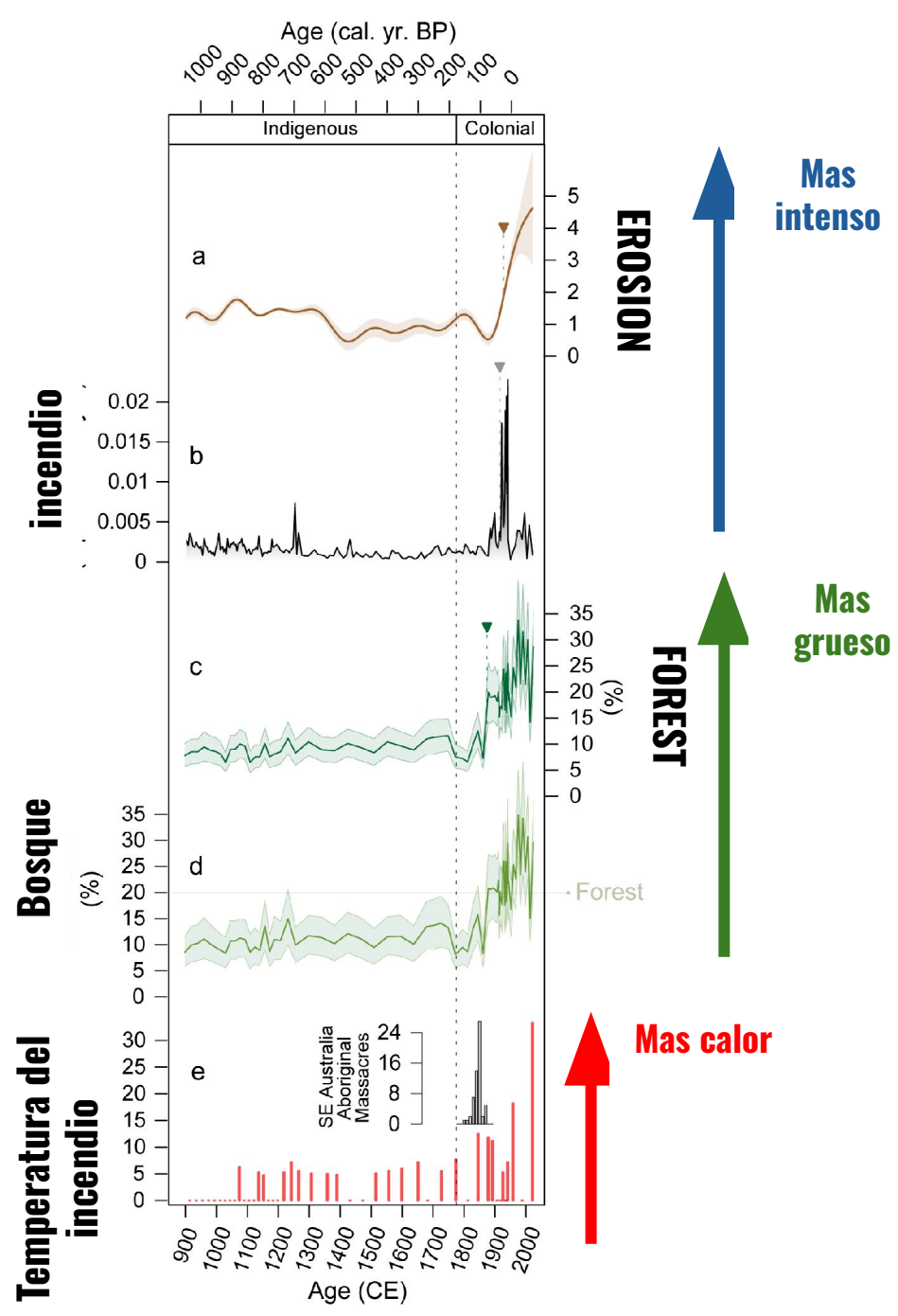


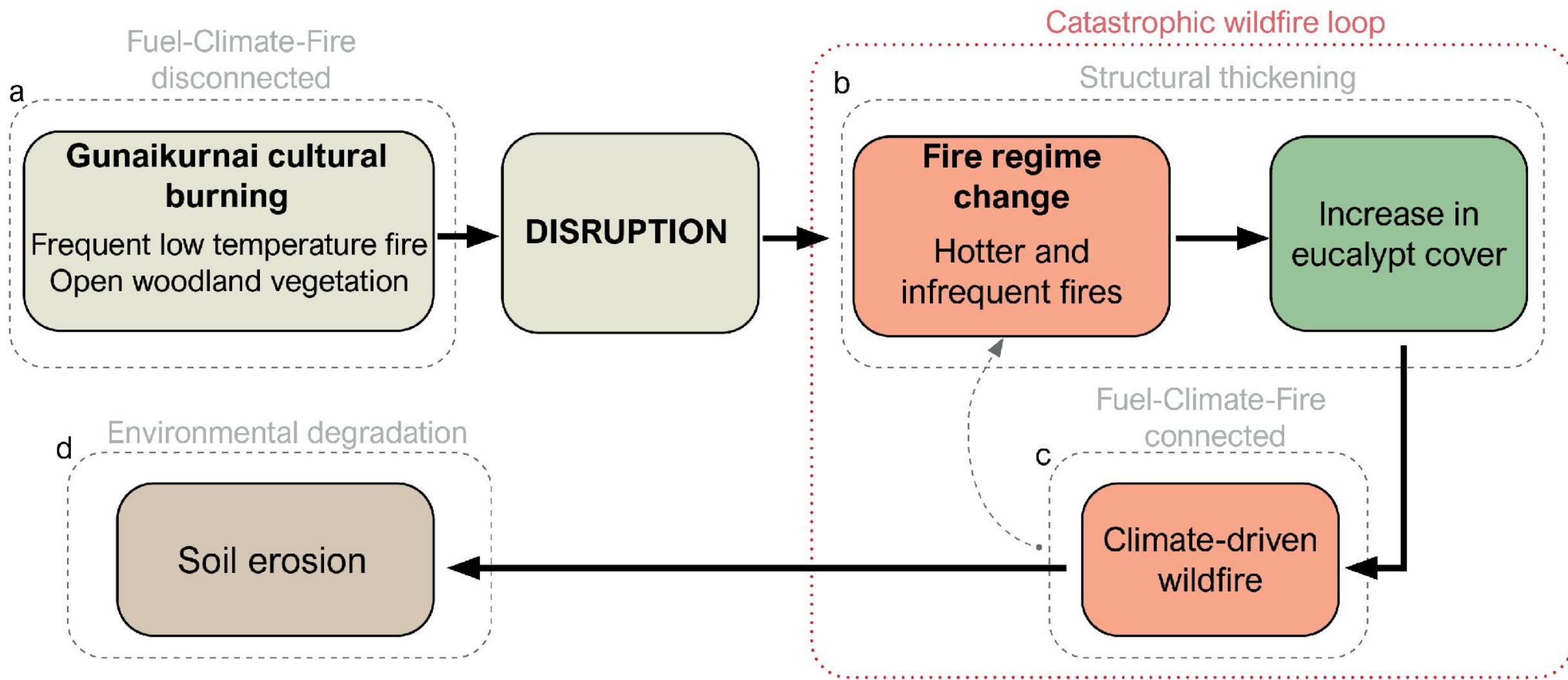
Purghagoolah (Elusive Lake) Croajingolong NP

Metodos

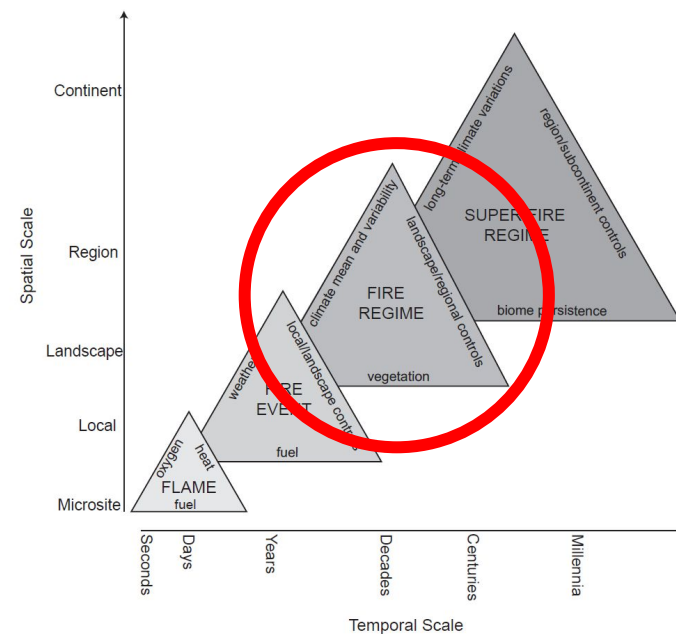
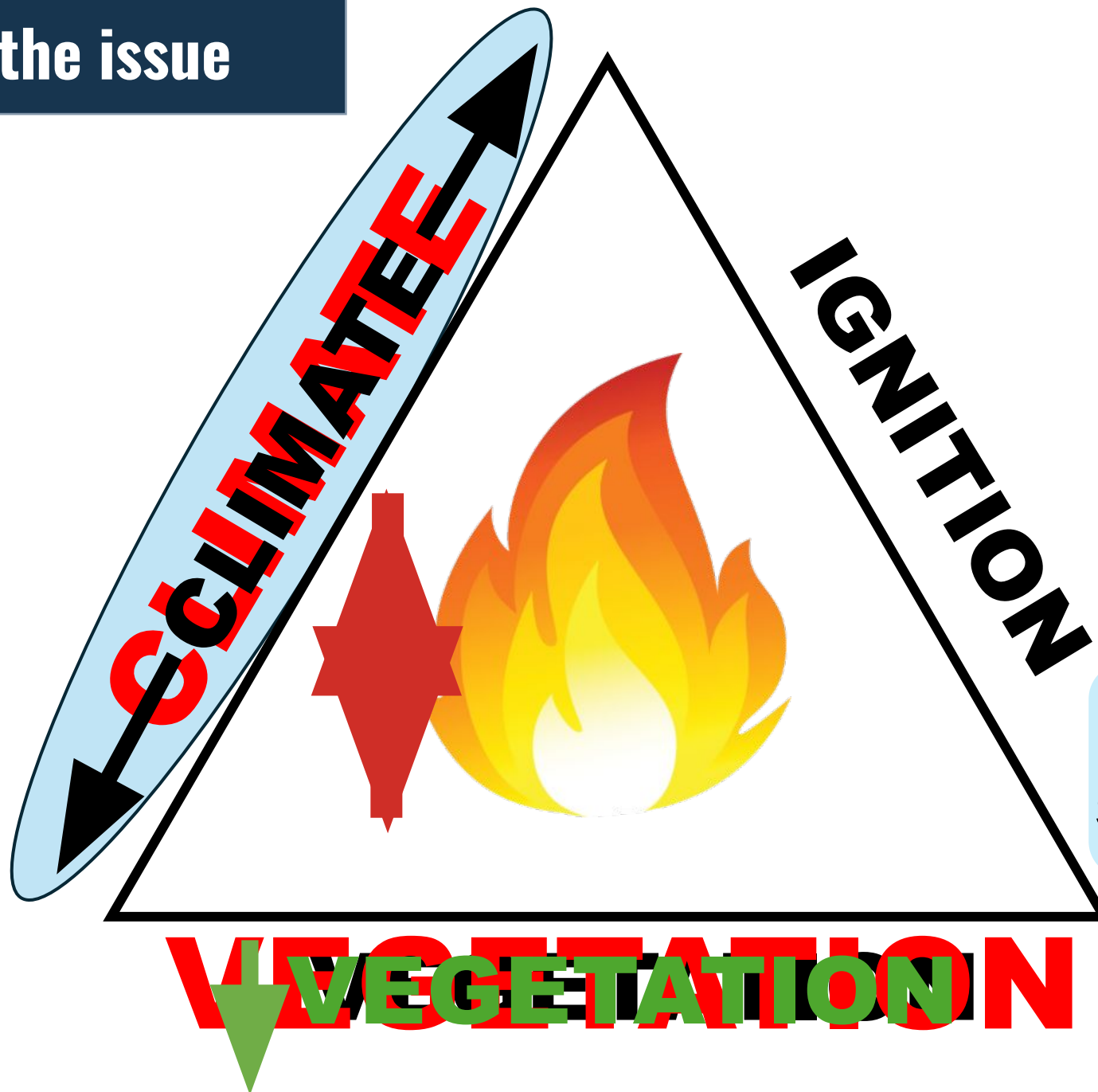


- **POLEN** = reconstrucción de la vegetación
- **CARBÓN** = reconstrucción de incendios
- **FTIR** = detección de características del fuego
- **SUSPECCIÓN MAGNÉTICA** = historial de erosión posterior al incendio y cambios bioquímicos





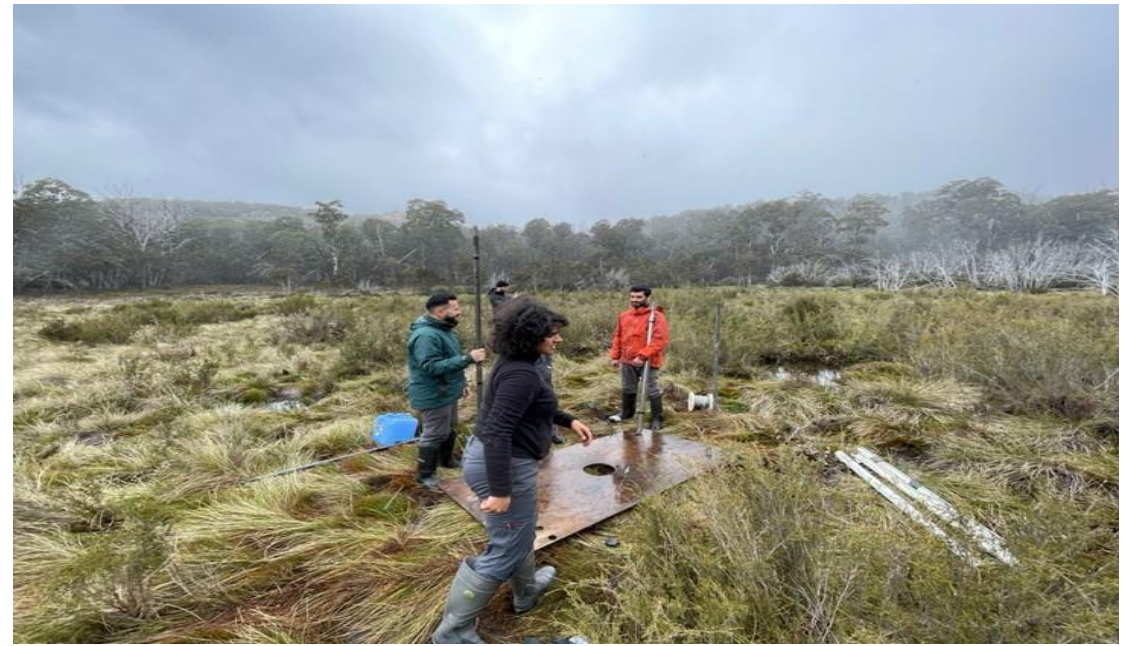
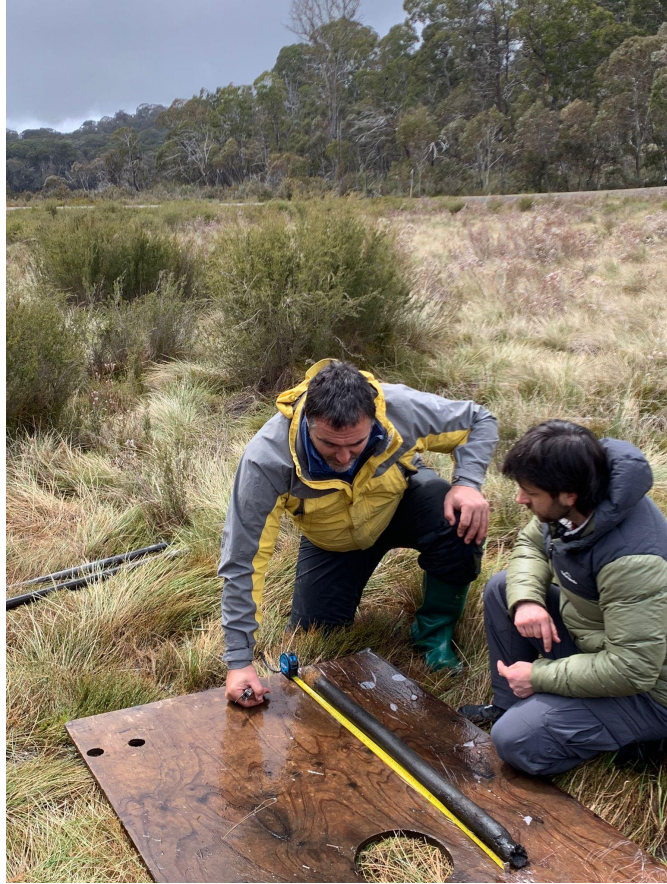
Rethinking the issue



Whitlock et al. 2010

= more resilient systems

Mirar al pasado para guiar el futuro



Gracias



Preguntas?

Email: anthony.romano@unimelb.edu.au