

Regenerate



Grasslands

Documentary by Ivan Masic and Lee Ramseyer Bache

Grasslands are in crisis!

They are the world's most threatened ecosystem, facing rapid destruction.

Humans depend on grassland plants for over 50% of their global calorie intake, including staples like rice, wheat, and maize. This film highlights the integration of native grains into Australia's food and feed industries, and the problem of biopiracy – alarmingly, Indigenous representation in Australia's bush food industry, ranging from growers to farm managers and exporters, is less than 1%.

We begin by examining the co-evolution of humans and grasslands, a topic explored by historian Bill Gammage. Numerous advocates are passionately promoting native grain production. Gamilaraay man Jacob Birch meets individuals who actively resist biopiracy and champion the wisdom of Firesticks Farming and the restoration of perennial native grasslands.

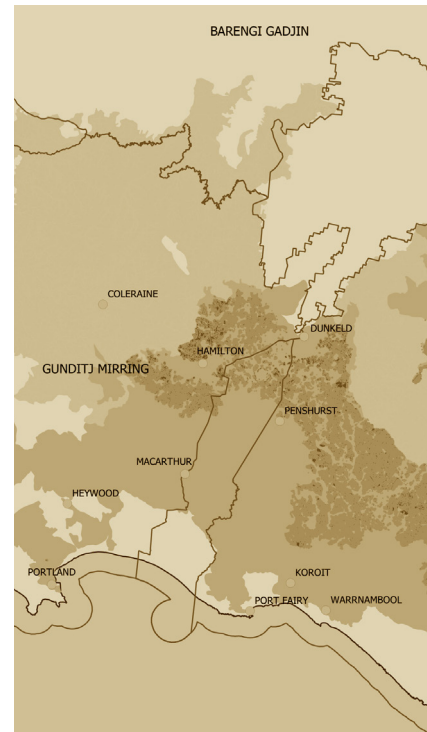
What is the key to success? Integration! Yolngu woman Leila Gurruwiwi explores the potential of native grains for food production, fire prevention, and mine rehabilitation. Together, these stories and characters outline a path toward a more sustainable and equitable future for grasslands and for the land we call home – Australia.

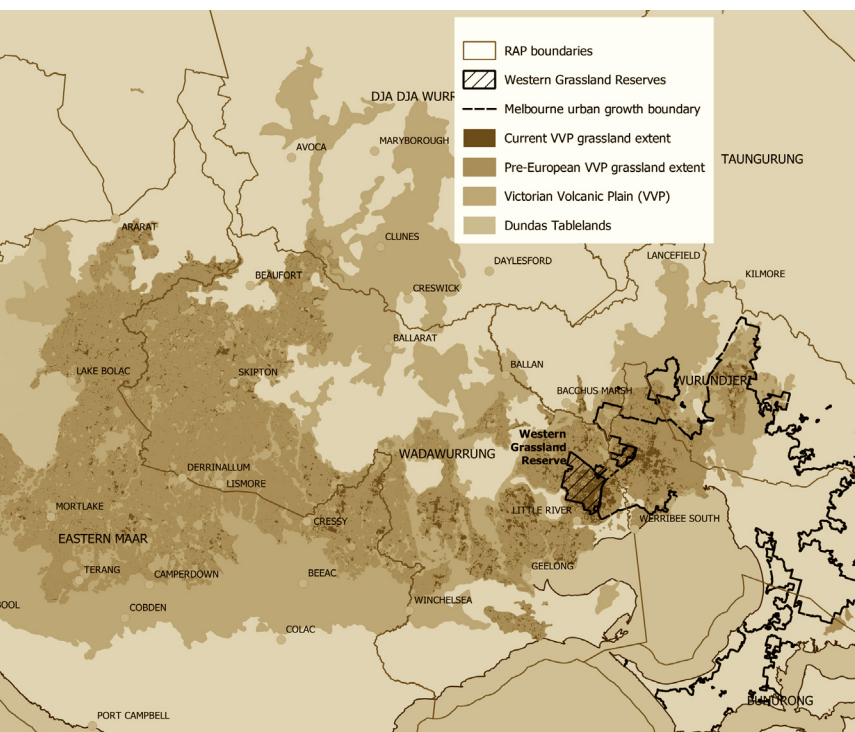
For countless generations, Aboriginal people have stewarded their lands with profound dedication. This film honours that deep connection, recognising the ongoing commitment of Aboriginal communities to care for Country, from ancient times through today.

Presented by First Nations voices on Country, Grasslands shares stories that link us to the land, depicting the spiritual and physical relationship between people and the domesticated native grasses that have fed and sustained us.

Yolngu woman Leila Gurruwiwi, inspired by her desire to leave a thriving planet for future generations, embarks on a journey guided by Gamilaraay researcher and native grain advocate Jacob Birch. Together, they meet with innovators and leaders across Australia—and perhaps the world—pioneering solutions to restore native grasslands and strengthen communities. This is a positive portrait of the co-evolution of humans and native grasses and what 'could be' instead of the current dystopian future we are so often presented with.

Through a blend of documentary, conceptual animation, and visual effects, the film envisions a future where native grasslands help secure food, prevent bushfires, protect biodiversity, and empower First Nations people. Grasslands maps a transformative path toward sustainability and equity, celebrating Indigenous Australian people's deep knowledge and unbroken practices in cultivating and utilising native grasslands and the commitment of passionate allies, academics, and experts to reimagine Australia's future.





Modelled extent of pre-European and contemporary grasslands of the Victorian Volcanic Plains. Incredibly, no thorough map of Melbourne's grasslands exists. This gap shows just how under-resourced Melbourne's grasslands are. Grasslands are currently managed by a multitude of organisations, including 15 local councils, a couple of rail authorities, VicRoads, various utility companies, other government departments such as DELWP and Parks Victoria, federal authorities, as well as many private landholders. (Map courtesy of the Grassy Plains Network)



Aerial view of Djandak's native grain growing facility in Lockington—an independent, Supply Nation-certified business of the Dja Dja Wurrung Clans Aboriginal Corporation, driving self-determination, community well-being, and Aboriginal-led land management in Central Victoria.



Mount Noorat crater—a dormant volcano, situated in the Victorian Volcanic Plains (VVP). The VVP, formed by over 400 volcanic eruptions over the past 4.5 million years, are one of the largest lava plains in the world. The eruptions left behind fertile basaltic soils, making the region highly suitable for agriculture. This fertility supported the rapid expansion of European farming, particularly sheep grazing, which has since led to the widespread clearing of native grasslands. The region's volcanic history, while a foundation for productivity, has also indirectly contributed to significant ecological loss

Remember the Grasslands

Written by Cristina Napoleone



Beneath the surface of the world, where light falters and the air gives way to soil, grasslands compose a quiet chorus of connections. Their roots spread outward, weaving intricate lattices that defy the logic of vertical striving. In this subterranean architecture, there is no singular trunk, no apex – only a sprawling, *living network* where every shoot and tendril is both origin and extension. Here, life follows a logic of multiplicity, not hierarchy – a rhizome: growth privileging proliferation, adjacency, and unexpected routes over linear ascent.

Yet the story of our grasslands is not contained beneath the soil. Above ground, another kind of life unfurls – equally intricate, visible, vulnerable, and relational. The waving grasses, bursts of wildflowers, humming insects, and dance of grazing herds speak to a different pattern of survival. Here, the grassland reveals its sympoietic nature: a system made and remade through interaction, disturbance, and care. Sympoiesis teaches that no system lives alone. Life is not autonomous but continually entangled, made through making-with.

Thus, grasslands hold two intertwined truths. Below the Earth, they are rhizomatic: systems without beginning or end, proliferating through branching multiplicities, finding strength in formlessness. Above the Earth, they are sympoietic: systems ceaselessly co-authored and maintained by others, with an openness to being shaped. These are not contradictions, but layered realities – two modes of existence braided into one.

Sympoiesis challenges the outdated fantasy of autopoiesis – the idea that life is simply self-creating and independent. Instead, flourishing arises through openness, influence, and collaboration at every level: root and fungus, seed and bird, rain and stone, hand and flame. Throughout biological history, symbiosis – not conquest – has driven innovation. Grasslands are no different: sophisticated symbioses of soil, sun, rain, animals, and humans – systems designed by and for collaboration. They require animals to press seeds into soil, pruning exuberant growth and creating space for diversity to thrive. They depend on pollinators, seasonal rains, migratory patterns, and the interplay of human and more-than-human rhythms. In every green(*ish*) blade

that shivers in the wind, there is a story of many agencies shaping and reshaping a living mosaic.

Grasslands also require fire – not the consuming blaze of catastrophe, but the gentle renewal and weed management of controlled burns. Historically, fire was frequent – first stewarded by Indigenous practices, later maintained through volunteer-led roadside burns across nearly 500 lineal kilometres annually in Victoria’s Western Volcanic Plains, according to the Westmere Fire Group. Today, this figure has dwindled to just a few kilometres, eroded by regulatory changes, an ageing volunteer base, shifting land priorities and climatic variability. Without early seasonal burns to stimulate flowering and seeding, diversity diminishes – and with it, the resilience of these irreplaceable and critically endangered ecosystems to which our health is inextricably linked.

When systems of care begin to slip, so too does the memory that has sustained them, as knowledge once held in intimate relation to land is marginalised or forgotten. Native temperate grasses, once a highly diverse ecological community, are crowded by European monocultures, and biodiversity has retreated into isolated fragments. Victoria’s Volcanic Plains – once vast mosaics of life – now persist only in vulnerable remnants, holding the last strains of an ancient ecological memory. If one species vanishes, so does part of ourselves. To lose grasslands is *not only* to lose a landscape, but a living teacher and an invitation to participate again in what it means to be human.

Resilience is not inward fortification, but the outward flowering of relationship, porousness, and adaptation. In an age increasingly defined by collapse and separation, grasslands offer a different metaphor for survival. They ask us to imagine strength not as domination, but as connection; not enclosure, but the ability to be altered without being undone. They whisper that our bodies too, are not singular beings, but braided lives – rhizomatic in architecture, sympoietic in continuance. We are not separate from the systems that sustain us. We are threads in the weave, roots in the mesh, agents in their mutual making.



The Moorooobool River, once a thriving waterway, winds through lush landscapes, supporting local ecosystems. However, its health has been significantly impacted by agricultural practices, leading to ecological degradation and reduced water quality, highlighting the need for conservation efforts to restore its natural vitality.



A restored native grassland in the Cumberland Plains, NSW, showcasing the work of restoration ecologist Dr Paul Gibson-Roy. This site, once degraded, has been transformed through direct seeding and careful management to re-establish a diverse and resilient grassland ecosystem, supporting native flora and fauna in one of Australia’s most threatened ecological communities.



Ecological burn at Bababi Djinanang Grassland, conducted by the Merri Creek Management Committee (MCMC). For over 30 years, the MCMC has led ecological restoration in Merri-bek's grasslands, pioneering prescribed burns to maintain biodiversity and build community understanding of fire's role in healthy ecosystems. This long-term, science-based management has restored native vegetation and habitat, supporting over 60 indigenous plant species, including the largest known population of the endangered Matted Flax-lily, as well as fauna like the Tussock Skink and Black-Shouldered Kite.



Aerial view of the Central Desert, where native grasses thrive in the harsh, arid landscape. For tens of thousands of years, Aboriginal people have used fire as a land management tool, burning grasslands to promote growth, enhance biodiversity, and support hunting. These traditional practices remain essential to the health and resilience of desert ecosystems today.

Grasslands are often unseen. They are not dramatic or towering. Their loss is not sudden, but a slow, almost invisible erosion. What seems empty is dense with exchange – yet we are currently witnessing their quiet erasure. Today, less than 1% of the native grasslands that once swept across the Victorian Volcanic Plains survive, fragmented between farms, developments, and roadsides, or scattered in protected remnant reserves of national and international significance. Their disappearance is not just ecological loss; it is the unravelling of memory, affecting soil health, water systems, carbon cycles, and ancient cultural continuities.

There is a deep sentiment shared between these systems and the human condition. From evolutionary scales, we now understand ourselves not as isolated organisms, but as ecosystems ourselves – layered, interdependent, continually becoming. To cling to separateness is to cling to a fantasy of the industrial age, now collapsing under scrutiny. Grasslands model a different truth: resilience is rhizomatic and sympoietic, woven from invisible networks of persistent exchange to sustain flourishing. But these modes must be maintained. Without pollinators, fire, hands, and paws, the web collapses into monotony. Our very inner architectures crave stability – yet our survival depends on openness: to relation, disturbance, and change.

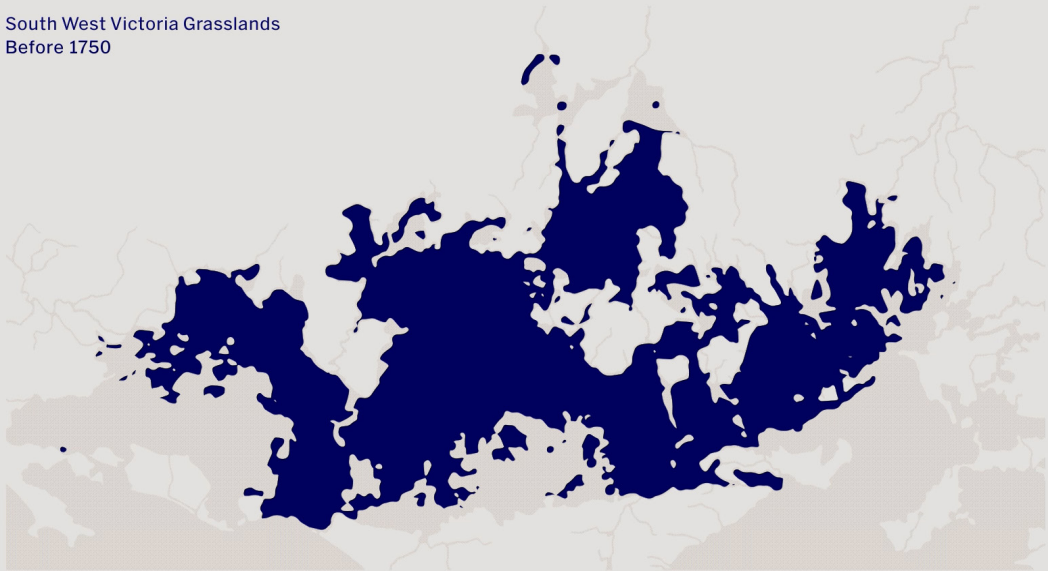
Grasslands ask us to reframe strength not as standing alone, but as belonging well. Their fate is not only ecological, but philosophical because to lose them is to lose a choreography of relation. To resist their erasure is to resist the slow forgetting of how we are wired to live in reciprocity. To participate in the recovery of one's local bioregion is to rejoin life itself and remember that we make together – *or not at all*. Grasslands teach that survival is not conquest, but collaboration. Not mastery, but patience. Not control, but care.

Regeneration is not achieved by singular gestures, but through slow, layered actions that renew memory and matter. We must challenge narratives of abandonment, bear witness to what has been lost, and choose to stay, repair, and tend. Aboriginal people, the oldest living cultures on Earth, have long taught that Country is not land alone, but a living entity – woven of waters, skies, kin, ancestors. This lesson is now urgent:

life is more-than-human,
more-than-linear,
more-than-now.

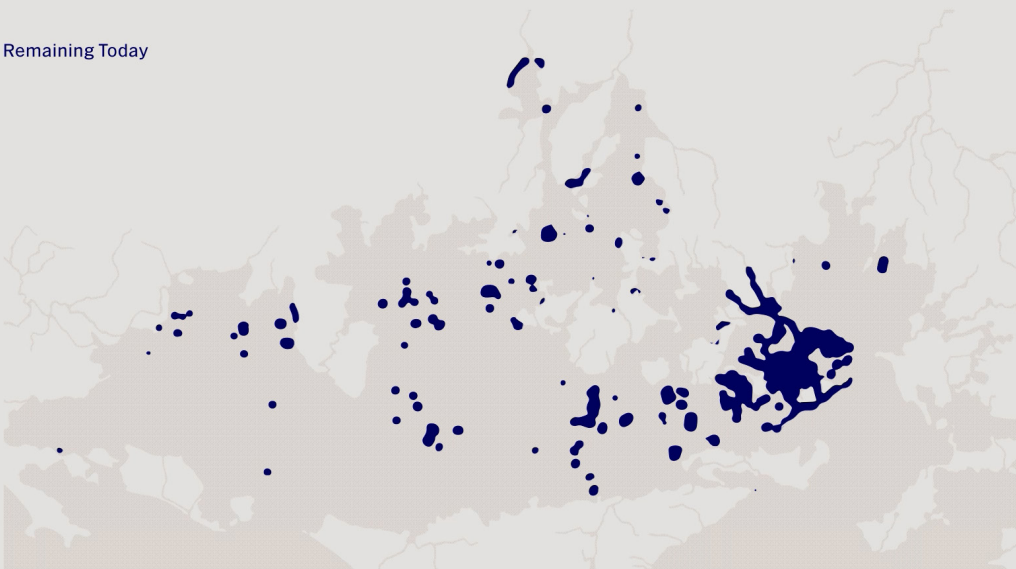
The work has already begun to take root – yet we have far to go. Victoria's grasslands are slowly being re-vegetated with native species, reflecting the shifting priorities of local communities and landcare organisations coming together. Real change often happens incrementally, nurtured underground, unfolding in spaces unseen. There is healing power in reaching toward our communities – and mobilising together locally. Our world calls for more healers, restorers, storytellers, and lovers of every kind. It needs people who live well in their places, and who find the courage to mend what others have broken. To live well now is to re-root our thinking. To cultivate patience within ecological scaffolds larger and older than ourselves – systems that will persist *beyond us*. To remember we are here to be good ancestors, to lead not through dominance but through care, and to be healed as we heal the world around us.

South West Victoria Grasslands
Before 1750



Map showing the extent of native grasslands across the Victorian Volcanic Plains before 1750, prior to widespread agricultural development and grazing.
Data Source: Corporate Spatial Data Library,
Dept. of Sustainability & Environment (DSE), 2010
Map Design: Andrew Clapham, AMCD Studio

Remaining Today



Map showing the small, fragmented remnants of native grasslands in the Victorian Volcanic Plains today, highlighting the dramatic loss since European settlement.
Data Source: Corporate Spatial Data Library,
Dept. of Sustainability & Environment (DSE), 2010
Map Design: Andrew Clapham, AMCD Studio

In 2008 and 2009, Natural Temperate Grasslands and the Grassy Eucalypt Woodlands of the Victorian Volcanic Plains were listed as critically endangered ecological communities. Particularly threatened species within these communities currently include:

Acacia oswaldii	Eriochlamys squamata	Ptilotus erubescens
Acacia pendula	Eucalyptus ovata	Ranunculus diminutus
Allocasuarina luehmannii	Eucalyptus polyanthemus	Rhagodia parabola
Amphibromus sinuatus	Geranium sp. 1	Rhodanthe floribunda
Austrostipa rudis	Glycine latrobeana	Rutidosia leptorhynchoides
Austrostipa tenuifolia	Leiocarpa leptolepis	Sclerolaena napiformis
Brachyscome chrysoglossa	Leptorhynchus orientalis	Senecio cunninghamii var. cunninghamii
Calotis anthemoides	Leucochrysum albicans subsp. tricolor	Senecio linearifolius
Carex tasmanica	Leucochrysum molle	Senecio macrocarpus
Chenopodium desertorum subsp. desertorum	Maireana cheelii	Senna artemisioides
Chenopodium desertorum subsp. rectum	Malva preissiana	Sporobolus caroli
Comesperma polygaloides	Microseris scapigera	Swainsona behriana
Cullen parvum	Minuria cunninghamii	Swainsona murrayana
Cullen tenax	Nicotiana suaveolens	Swainsona plagiotropis
Dianella amoena	Panicum laevinode	Swainsona sericea
Dianella longifolia var. grandis	Pimelea spinescens subsp. spinescens	Swainsona swainsonioides
Diuris behrii	Podolepis linearifolia	Tecticornia pergranulata
Diuris fragrantissima	Prasophyllum correctum	Thesium australe
Diuris punctata	Prasophyllum diversiflorum	Tripogonella loliiformis
Duma horrida subsp. horrida	Prasophyllum frenchii	Vittadinia condyloides
Eragrostis australasica	Prasophyllum suaveolens	Vittadinia cuneata
Eragrostis setifolia	Pterostylis basaltica	Vittadinia pterochaeta
		Xerochrysum palustre

The *Regenerate* exhibition has been supported and produced by Tait for Melbourne Design Week, an initiative of the Victorian Government through Creative Victoria.

To support this ongoing work, support the Grasslands documentary crowdfunding campaign by visiting www.documentaryaustralia.com.au/project/grasslands and visit the Grassy Plains Network online to learn more about Victoria's Grasslands www.grassypains.net.au. The species above include those added to the *Flora and Fauna Guarantee Act 1988* Threatened List released in March 2025.

By engaging with TERRAIN – this work continues on the ground through the *Bioassembly*, presented in partnership with Arc'teryx. *Bioassembly* visits varied terrains and bioregions to learn, appreciate and be actively engaged in the health of biodiverse ecosystems within a local context, and provides opportunities for ecological restoration and service. Read more at www.terrain.earth/bioassembly

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