



Extinction roulette – who's going next?



**AUSTRALIAN
CONSERVATION
FOUNDATION**

**Nature
needs us,
now**

We acknowledge the Traditional Owners of Country and their continuing connection to land, waters and community. **We pay respect to their Elders past and present** and to the pivotal role that First Nations Peoples continue to play in **caring for Country across Australia.**

Introduction

Australia is a unique place of remarkable beauty and distinction.

But Australian nature is in trouble.

The destruction of natural habitats from bulldozing the bush, invasive species and the exacerbation of fires, droughts and floods fuelled by the burning of fossil fuels, have resulted in one of the worst extinction rates on Earth.

This is not just a historical issue, it's happening now.

Australia's national nature protection laws are broken, and our complex food system is contributing to nature's destruction. Governments and corporations are playing extinction roulette with our precious plants and animals.

As of September 2024, there are a total of 2,245 species on our national list of flora, fauna and ecological communities that are threatened with extinction.

This report profiles 10 plants and animals that are among the most imperilled.

They are what Australia stands to destroy forever if we don't turn the tide.

But Australians won't stand for it. We know that if there is no nature, there is no future.

Ahead of the Albanese Government's first Global Nature Positive Summit, Australians have a clear message to business leaders and government decision makers.

Stop bulldozing the bush.

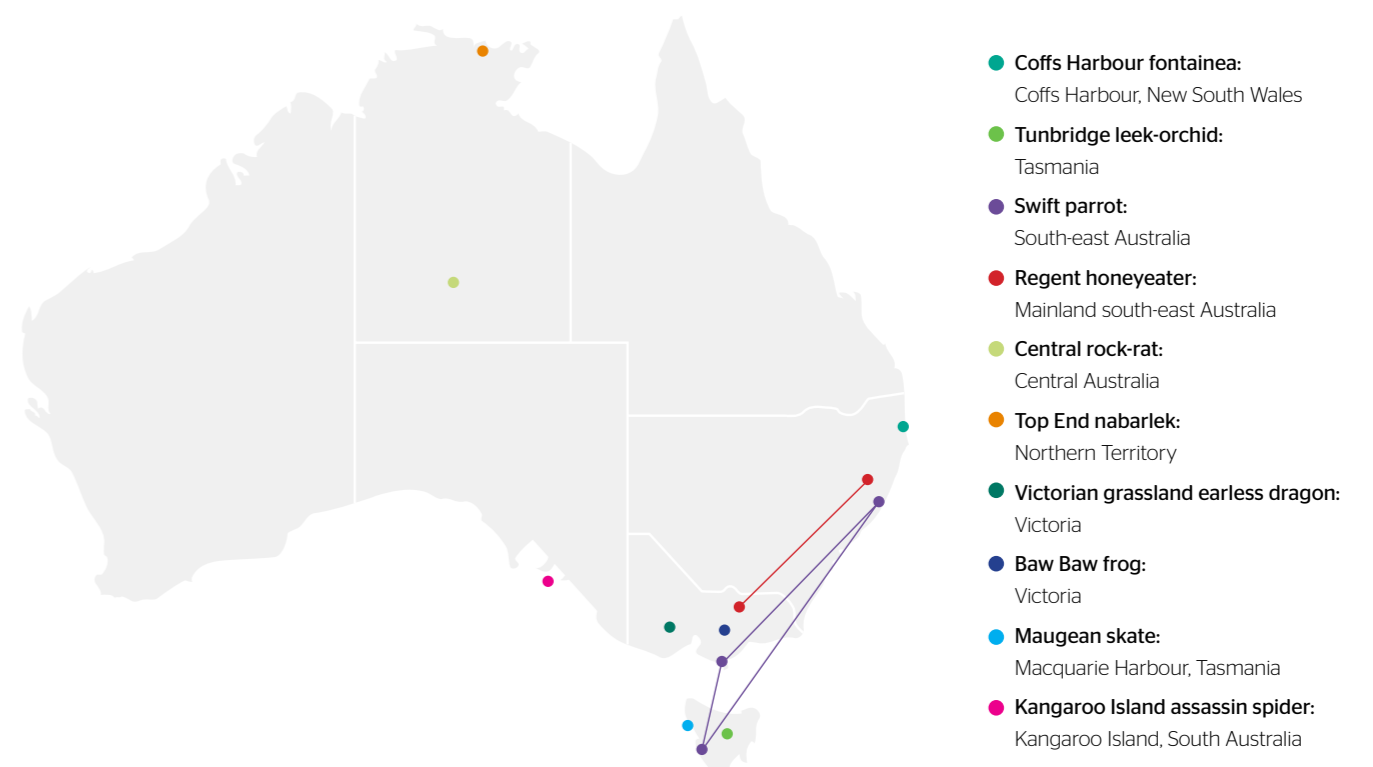
End the extinction crisis.

No more approvals for nature-wrecking coal and gas.

Now, all eyes are on the summit where business and government leaders have set themselves the goal of transitioning from nature destruction to nature repair.

We are watching.

Nature needs us, now.



Plants

Australia's flora is unique with 85% of it found nowhere else on Earth.

Despite this, plants and ecological communities make up 70% of the threatened species list. Habitat destruction is the [primary threat](#) to Australia's plants, with the species most at risk concentrated in increasingly altered agricultural and urban areas.

Coffs Harbour fontainea



Photo: Mark Graham

Coffs Harbour fontainea
Location: Coffs Harbour, NSW
Population: Fewer than 10
Status: **Critically endangered**



The Coffs Harbour fontainea, a rainforest tree, exists only within the bounds of a Transport for New South Wales road construction project.

In June 2024, this incredibly rare tree, endemic to the area around Coffs Harbour in New South Wales, hurtled directly to the critically endangered category of Australia's threatened species list.

While Coffs Harbour was once covered by lowland wet sclerophyll forests, the tallest forest type in Australia, it is estimated that [more than 80%](#) has been destroyed, mainly to make way for grazing and other agriculture.

The Coffs Harbour fontainea may have become so restricted due to this historic habitat destruction that it now resides only in a tiny pocket of threatened bushland.

Today, Coffs Harbour fontainea trees have been translocated from one of two remaining sites, which has been cleared to make way for the construction of the Coffs Harbour Bypass Project. Trees that remain at the second site are expected to experience ["adverse impacts"](#) from dust accumulation, increased risk of weed invasion and close proximity to construction activities that will "likely lead to reduced plant health... and/or individual tree survival." Dr Jennifer Silcock of the University of Queensland asserts that "translocation has not been shown to be an effective conservation strategy in the vast majority of cases". A 2019 review found that only 13% of 1,000 plant translocations documented in Australia had at least 50 plants surviving and some second-generation recruitment.

The New South Wales Threatened Species Scientific Committee predicts there is likely to be an 80% reduction in Coffs Harbour fontaineas within three generations. There are already [fewer than 10](#) mature individuals remaining. The Coffs Harbour fontainea may be the next Australian plant to go extinct.

“ Any laws that don't stop land clearing for any purpose are not going to be effective in achieving plant conservation in the long term. It is a travesty that a developed country like Australia is still clearing bush in 2024. ”

Dr Jennifer Silcock, Research Fellow, University of Queensland.

Tunbridge leek-orchid



Photo: Mark Wapstra

Tunbridge leek-orchid
Location: Tasmania
Population: Fewer than 50
Status: **Endangered**



With [fewer than 50](#) plants remaining, the Tunbridge leek-orchid's existence is hanging in the balance.

Much like the Thylacine, Tasmania's most renowned extinct species, the Tunbridge leek-orchid is endemic to the island state, and it is now facing a similar fate due to unsustainable practices. The historic large scale [destruction](#) of midland Tasmania's threatened native grasslands for pasture has restricted the orchid to a very limited area. Additionally, the historic application of superphosphate - the first chemical fertiliser - is thought to have caused local extinctions and made surviving grasslands uninhabitable for the flowering native.

Today, following the [complete grazing of plants by sheep](#) at one of its known populations, the Tunbridge leek-orchid has only been recorded at two of its five known sites in the last 20 years.

“ The primary threat to these orchids was historic land clearing, and now it's also climate change. Climate change is severely impacting on grassland ecosystems in a range of ways. In Tasmania, there are orchid populations where no orchids have flowered in years, and their tubers might not last much longer. So we're at a tipping point for some of these populations. ”

Mark Wapstra, Ecologist,
Environmental Consulting Options Tasmania

Birds

Warbling magpies and squawking cockatoos are fundamental parts of the Australian land and soundscapes. But 72 threatened bird species have now disappeared from [two thirds of the continent](#).

Since 1788, humans have driven nine bird species and 22 subspecies to extinction.

The swift parrot and regent honeyeater are among those that could be next.

Swift parrot



Photo: Brendan Sydes

Swift parrot
Location: South-east Australia
Population: Around 500
Status: **Critically endangered**



Since 1999, the fastest parrot in the world has catapulted from being vulnerable to extinction in the ACT to being classified as critically endangered nationwide. Today, only around [500](#) of these birds remain and their population is rapidly declining.

The survival of the swift parrot is dependent on suitable nesting and food trees. But commercial logging is destroying swift parrot habitat where it breeds in Tasmania and on the mainland.

Despite being listed as critically endangered and the protections that are intended to come under Australia's national environment law, swift parrot breeding habitats are still being destroyed today.

Modelling conducted by the Australian National University suggests swift parrots could be [extinct by 2031](#) if more is not done to protect their habitat.

“ In Tasmania, the situation is dire. We must stop logging swift parrot breeding habitat, especially in places where there are no sugar gliders. This impending extinction could be stopped by Minister Plibersek’s pen. Starting by immediately preventing the logging of glider-free habitat in Tasmania would go a long way to saving the swift parrot. ”

Mick Roderick, Woodland Bird Recovery Lead, Birdlife Australia.

Regent honeyeater



Photo: Mebin Jacob / Shutterstock

Regent honeyeater
Location: Mainland south-east Australia
Population: Fewer than 300
Status: **Critically endangered**



Once common across eastern Australia, the regent honeyeater has suffered from the destruction of [up to 90%](#) of its preferred woodland habitat to make way for agriculture and townships.

In the past, regent honeyeaters would breed in suburban Melbourne and Adelaide and flock in their thousands to blossom events in forests like the Capertee Valley in New South Wales. Today, however, it is estimated that fewer than 300 of these wild birds remain.

With so much of their home destroyed, regent honeyeaters need what's left to be retained and protected. For their survival, we must stop the destruction of temperate woodlands. "It doesn't make sense to destroy a habitat type that is on the border of

extinction itself. We've broken the back of the breeding strategy of a formerly prolific, highly mobile and uniquely Australian bird" said Mick Roderick of Birdlife Australia.

In June 2023, [an ACF crowd-sourced investigation](#) uncovered the [potentially illegal destruction](#) of 250 hectares of regent honeyeater woodland habitat by a prominent beef producer in NSW. The planned destruction of a further 30 hectares was stopped after media exposure and notification to the federal authorities.

Mammals

Colonial Australia has caused the highest rate of mammal extinction in the world. Since 1788, [39](#) unique Australian mammals have been wiped from the continent.

Central rock-rat



Photo: Brad Leue / Australian Wildlife Conservancy

Central rock-rat
Location: Northern Territory
Population: Around 650
Status: **Critically endangered**



The central rock-rat has been wiped out from [over 95%](#) of the area it occupied before European colonisation. Once thought to be extinct, a small population was found clinging to survival near Alice Springs in 1996.

While it was once widespread across vast areas of central Australia, the introduction of cats and altered fire regimes have reduced this once prolific nocturnal rodent to around 650 individuals today.

Previously named as the mammal [most likely to go extinct](#) within twenty years, the central rock-rat's future is uncertain. Intensive conservation measures including feral cat management, a captive breeding colony and translocations into areas free of invasive predators could make the difference between survival and oblivion for this uniquely Australian mammal.

Top End nabarlek



Photo: Roberto Dani

Top End nabarlek
Location: Northern Territory
Population: Unknown
Status: **Endangered**



A small wallaby restricted to the monsoonal tropics of the Northern Territory, the Top End nabarlek has previously been identified as the Australian mammal [most likely](#) to be extinct by 2041.

Its small size and tendency to move away from its rugged rocky habitat and out onto plains in search of food is thought to make it particularly [vulnerable](#) to predation by cats. This predation, combined with impacts from inappropriate fire regimes and the localised destruction of habitat from mining activities, have resulted in the Top End nabarlek suffering a severe and ongoing reduction in numbers. In 2015 it was estimated the nabarlek's numbers had been reduced by [at least 50%](#) in just 15 years.

“ The Top End nabarlek has been relatively neglected. It has been disappearing across its former range and may now be restricted to a single site, Mt Borradaile. There's no long-term monitoring nor assessment and management of threats. It is most likely that its decline is due to changed fire regimes and predation by cats, like so many other threatened mammals in northern and central Australia. Targeted management by Indigenous ranger groups may be the most important step in preventing its extinction and promoting its recovery. ”

John Woinarski, Professor of Conservation Biology,
Charles Darwin University.

Reptile and amphibians

Australia is home to the largest number of reptile species of any country on Earth, and 93% of them are only found here. Similarly, 94% of Australia's frog species are endemic and are considered barometers of environmental health.

Victorian grassland earless dragon



Photo: Rick Hammond / Zoos Victoria

Victorian grassland earless dragon
Location: Victoria
Population: Unknown. Sighted in 2023 for the first time since 1969.
Status: **Critically endangered**



This tiny dragon holds an unenviable title: it is the [most at risk](#) of all snake and lizard species in Australia.

Once common across the grasslands west of Melbourne, the Victorian grassland earless dragon was thought to be extinct for 54 years. But in 2023, the striped lizard was rediscovered and became a nationally listed threatened species in the same year.

With its basalt plains grassland habitat having been reduced to [less than 3%](#) of their pre-European extent, the Victorian grassland earless dragon's future is tied to the protection of what little is left of its home and the identification of new safe areas for captive-bred animals to be released into.

For now, the Victorian grassland earless dragon is teetering dangerously on the edge of extinction as Victoria's grasslands continue to be destroyed for both legal and [illegal](#) urban sprawl.

“ The Victorian grassland earless dragon is now listed as critically endangered after being recently rediscovered. This means its home should be protected, and yet native grasslands continue to be destroyed. This dragon needs nature laws with teeth. ”

Deon Gilbert, Threatened Species Biologist,
Zoos Victoria

Baw Baw frog



Photo: Rick Hammond / Zoos Victoria

Baw Baw frog
Location: Victoria
Population: Around 250
Status: **Critically endangered**



Victoria's Baw Baw frog population has been reduced by more than [98%](#) since the 1980s.

Although once relatively common across its subalpine home range, the endemic Victorian amphibian has suffered dramatic declines due to an infectious disease caused by the introduced chytrid fungus. Frogs breathe through their skin, but the fungus attacks and hardens parts of the skin making it difficult for the frog to breathe and often causing a prolonged death.

Chytrid fungus has caused more animal extinction and declines than any other diseases we know about, and Australian frogs threatened by it need significant investment for their long-term survival.

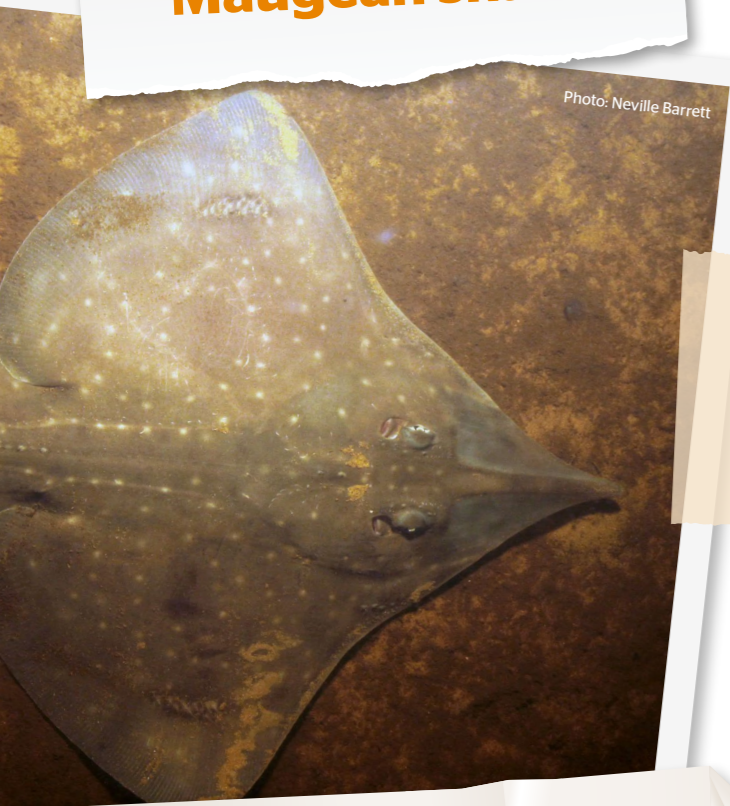
As put by Zoos Victoria expert Deon Gilbert,

“ Australian frogs need investment. We've managed to secure species genetics, now we need the buy-in and the dollars for target research to solve the chytrid problem and pull our frogs back from extinction. Without proper investment to solve the threat of chytrid fungus, the other goalposts don't shift, and true recovery of Australia's most chytrid susceptible frogs doesn't happen. ”

Fish

Australia's fish species have been referred to as underwater and overlooked. One fish has already been declared as extinct in Australia and a further 83 are threatened species. The Maugean skate is one such species that could be one extreme weather event away from extinction.

Maugean skate



Maugean skate
Location: Macquarie Harbour, Tasmania
Population: Around 120
Status: Endangered



In 2012, when the State Government and the Federal Environment Minister approved the expansion of salmon farming in the harbour, the three companies involved – Tassal, Petuna and Huon Aquaculture – agreed to avoid significant impacts on the already endangered Maugean skate. However, soon after, the harbour's dissolved oxygen levels plummeted, creating an aquatic environment in which fish like the Maugean skate can suffocate.

Between 2014 and 2021, the skate's abundance in Macquarie Harbour [nearly halved](#) and there are thought to be only [up to 120](#) adult Maugean skate remaining in the harbour today. Experts have described the extinction risk for the Maugean skate as "dire" and the Australian Government is considering moving the species from endangered to critically endangered. While there has been recent success [breeding](#) the Maugean skate in captivity, their wild home remains unsafe. Experts are calling for an immediate pause on salmon farming in Macquarie Harbour to restore oxygen levels and water health.

“ Strengthened nature laws prioritising the health of our natural world is prioritising our own health, and that includes ensuring intensive aquaculture no longer directly drives the extinction of the Maugean skate. ”

Dr Leonardo Guida, Shark Scientist and Conservation Lead, Australian Marine Conservation Society.

Tasmania's Maugean skate is under direct threat from intensive salmon farming in its home of Macquarie Harbour. As described by Dr Leonardo Guida of the Australian Marine Conservation Society, the skate is "staring down the barrel of extinction in as little as ten years. This would not only be a global extinction event but may very well be the world's first extinction of a marine fish as a direct consequence of intensive aquaculture".

Invertebrates

Invertebrates, like spiders, worms, snails and butterflies, make up more than 95% of Australia's known animal diversity. They are crucial to the functioning of our ecosystems, yet we know so little about them.

Around 100,000 invertebrate species in Australia have been studied and assigned scientific names, but this is thought to represent only 30% of the actual number of species that exist. With only 0.6% of named Australian invertebrate species currently listed as threatened, there are likely many, many more at risk of extinction.

Kangaroo Island assassin spider



Kangaroo Island assassin spider
Location: Kangaroo Island, SA
Population: 5 known
Status: Critically endangered



Endemic to South Australia's Kangaroo Island, the assassin spider is a stealthy predator with a head shaped like a pelican. Currently known from only two sites in the island's north-west, the spider came perilously close to extinction during the Black Summer fires, which ravaged the two kilometre stretch of its creek line habitat.

Like so many Australian species, the ancient Kangaroo Island assassin spider has been squeezed into smaller and smaller patches of habitat and its survival is now dependent on the protection of what remains of its home. As described by species expert Dr Jessica Marsh, "so little is left that we should be thinking we are at ground zero, any remaining habitat is crucial". The spider's habitat requires protection from further destruction, fragmentation, fire, weeds and feral animals.

Only five individuals have been found from surveys, but it is believed there are more Kangaroo Island assassin spiders out there.

“ Protection of remaining habitat is absolutely key for highly range restricted species, such as the Kangaroo Island assassin spider. Stronger nature protection laws give this a much better chance of happening... this species is teetering right on the brink. ”

Dr Jessica Marsh, Conservation Biologist, Invertebrates Australia

2024 is a critical year for Australian nature, and the latter half of the year could be a turning point.

Food businesses are under pressure to get [deforestation](#) out of their supply chains and all eyes are on the Albanese Government to deliver a thorough overhaul of Australia's nature protection laws, complete with a tough and fully independent national regulator to enforce them.

Now, with the stage set for the Global Nature Positive Summit, decision makers have a choice. Will they set the agenda to stop the destruction of nature and invest in its repair? Or will we continue the status quo of bulldozing the bush and playing extinction roulette with Australia's threatened species?

The Australian people are watching, and our demands are clear.

Stop bulldozing the bush.

End the extinction crisis.

No more approvals for nature-wrecking coal and gas.

With thanks to

Peta Bulling, Environmental Justice Australia
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Dr Leonardo Guida, Australian Marine Conservation Society




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