

In 2012 koalas on Australia's east coast were listed as vulnerable. Ten years later, in 2022, the Australian government raised their status to endangered. Photograph: Lisa Maree Williams/ Getty Images

<u>Australia news</u>

Global heating, land clearing and the 'extinction vortex': the fight to save Australia's koalas

A century ago, the sheer volume of koalas meant they were hunted for fur in the hundreds of thousands; today a dwindling population faces threats from continued logging and heatwaves

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Bill Ellis thinks koalas have somehow managed a giant con on the people of the world – one that has made them fodder for countless marketing campaigns with their round, cartoon-like faces.

"Have you ever seen their skulls?" he asks. "They're long and flat but yet they've got this face that looks cute and cuddly with a baby nose. It appeals to us."



Continued logging of NSW koala habitat is 'a profound tragedy', conservationist says

But while the sleepy, eucalypt-munching tree climber might feel ubiquitous in the world of marketing or soft diplomacy (they're <u>regularly deployed into the</u> <u>arms of world leaders</u>), their futures on Australia's east coast are looking increasingly perilous.

Koalas are one of the few animals who have worked out how to sustain themselves by eating eucalypt leaves. But Ellis, a researcher at the University of Queensland who has been studying them for 35 years, says while they have few competitors for food, they are tied to the fortunes of the trees that are being cleared for developments.

On Friday, the New South Wales government is due to host a "koala summit" to hear what was working and what needed to be done. "People have realised that you can't take it for granted that we will always have koalas," says Dr Stuart Blanch, a conservation scientist and forest policy manager at WWF Australia.

The six major threats facing koalas

The first big sign of a problem came in 2012 when koalas on Australia's east coast were listed as vulnerable. A later study found that nationally, numbers had dropped by 24% over the past three generations – or about 20 years.

In Australia's black summer bushfires of late 2019 and early 2020, about 10% of the koala's habitat was burned. Images of dead or burnt koalas went around the world.

In 2022 – and with land clearing and logging continuing to fracture their habitat – the government <u>raised the koala's conservation status to endangered</u>. New estimates suggested that between 2001 and 2021, koala numbers in Queensland, NSW and the Australian Capital Territory dropped by 50%. Numbers are more stable in Victoria and South Australia.

In NSW, the state government is moving to create the "Great Koala national park", but conservationists have pointed to <u>continued logging within the</u> <u>proposed boundaries of the park</u> as a "profound tragedy".

For years, koalas were considered to have five big threats: land clearing, logging, dog attacks, traffic accidents and chlamydia – a bacterial disease that can cause urinary tract infections and infertility in females, and also damage the sperm of males.

But the species now faces a sixth major threat. "The climate change impacts are rapidly taking over the others," says Blanch.

When government experts raised the koala's threat status to endangered, they said shifts in summer "temperatures, humidity and water availability pose a significant threat" because they could cause "acute physiological stress during heatwaves, compounded by drought".

Dr Amber Gillett, a veterinarian and koala expert at the University of Queensland, says koalas tend to climb higher in trees to escape any threat – including a fire.

But the strategy didn't work in areas where the fires reached beyond the tops of the trees.

Climate change could also shrink the koala's habitat of eucalypt forests and woodlands even further.

Koalas generate heat as they eat, using the lower temperatures overnight to cool down. As Australia keeps heating up, Gillett says that lack of respite could damage the animal's organs or interfere with their feeding patterns.

Avoiding the 'extinction vortex'

Knowing how many koalas are out there is difficult, she says, because they're not easy to spot. But there are suggestions from history that they were once hard to miss.

Only a century ago, koalas were killed in their millions for the fur trade, with one report of <u>600,000 shot in a single month in 1919</u>.

"That tells you the sheer volume of koalas in bushland areas that people could go and find and shoot out of a tree," says Gillett. "There must have been huge populations."



Land clearing: two million hectares of Queensland forest destroyed in five years, new analysis shows

A new <u>government initiative to give a more accurate national estimate</u> of the numbers says the east coast has a koala population of between 117,000 and 244,000.

In 2018, more than 50 scientists – among them Prof Carolyn Hogg of the University of Sydney – <u>published the koala's genome</u>. Genetic diversity within individuals and across the koala species is an important pointer to their chances of surviving.

"That reference genome is the blueprint for how the animal functions and how it interacts with the landscape," says Hogg.

Knowing where the animals have healthy genetics – and where they don't – should give conservationists clues about where to target their efforts to stop koala populations from being isolated either by roads and land clearing, or by a changing climate.

The goal is to avoid koala populations hitting the "extinction vortex" where individuals become closely related to their mates "and they stop breeding," says Hogg.

"The more variation you give a species, the greater potential they have to adapt to a changing world – and we're in one of the most significant changes ever."

'We should be ashamed'

Australia has one of the worst records for mammal extinction on the planet, and the centre-left federal Labor government has set a goal of no new animal extinctions.

Blanch says the time has come for a national "peace deal" with the koala.

Since koalas were declared endangered, "there has been no change in the land clearing laws at federal or state level. We've had election commitments, but nothing has been fulfilled".

"We should be ashamed," he says. "We are world-leading fossil fuel exporters and the only developed country that's still a global land clearing hotspot and it still isn't against the law to destroy places where koalas live.

"I think this is still part of an invasion mentality that, in the end, koalas don't temper our rights to clear land, log trees or build our homes.

"We have not, as a nation, decided that we'll save the koala."