Australia's Environment | 2025 REPORT

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Ecosystem Research Infrastructure

Overview

Australia's environmental condition remained above average for the fifth consecutive year, with a national Environmental Condition Score of 7.4 out of 10.

The national Environmental Condition Score declined slightly from that of the previous year. Across the country, conditions improved in Queensland, South Australia and Western Australia but fell notably in the Northern Territory, the ACT, Tasmania and Victoria.

Globally, greenhouse gas concentrations and temperatures remained at historically extreme levels despite a slight easing due to natural La Niña cooling. Global ocean heat content rose at one of the fastest rates on record and sea levels continued their long-term rise.

Sea surface temperatures around Australia reached their highest ever recorded level, driving the most severe coral reef heat stress on record and triggering a sixth mass bleaching event on the Great Barrier Reef. Australian temperatures were the fourth highest on record, with hot days 16% above average.

Australia's population grew by 1.5% to reach 27.6 million, with most growth concentrated in and around major cities, placing continued pressure on surrounding ecosystems. Greenhouse gas emissions fell by 1.9% despite economic growth of 2.6%, continuing a slow but steady decoupling of economic activity from environmental impact. Australians remain among the world's highest per-capita emitters at around three times the global average.

National rainfall was 4% above average, with exceptional wet conditions across Queensland and the north, and a third consecutive dry year across much of the south. Major flooding occurred in north Queensland, south-east Queensland and north-east New South Wales.

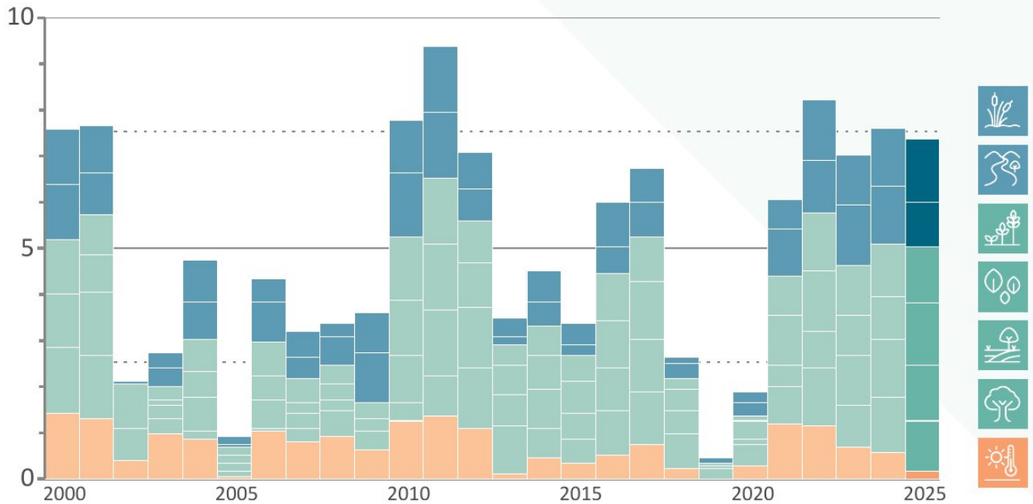
Exceptional rainfall across central Queensland sent floodwaters through the Channel Country river systems, producing the most significant filling of Kati Thanda–Lake Eyre in at least 15 years. Water storages declined across most of southern Australia, with the southern Murray–Darling Basin falling from 73% to 59% of capacity.

Soil moisture and vegetation condition both remained above average, driven by strong growing conditions across northern and eastern Australia, though both declined in the south and south-west. Fire activity was significant in Tasmania and western Victoria, with fuel moisture conditions drier than the previous year. Native forest loss fell to its lowest level since records began in 2021, and was more than offset in extent by new forest growth, though the ecological value of gained and lost forest can be very different.

The number of species listed as threatened under the EPBC Act grew to 2,175 — a 54% increase since 2000 — with 39 new listings in 2025. The 2025 Threatened Species Index update shows that populations of threatened birds, mammals, plants, frogs and reptiles have declined by an average of 59% since 2000, with new data for reptiles showing the most pronounced declines, at 88% over the same period. Climate change, adverse fire regimes and habitat loss remain the dominant threats, affecting 90%, 59% and 44% of newly listed species respectively. The ongoing legacy of the 2019–20 Black Summer bushfires continues to emerge, accounting for more than half of all species listed or uplisted since 2019.

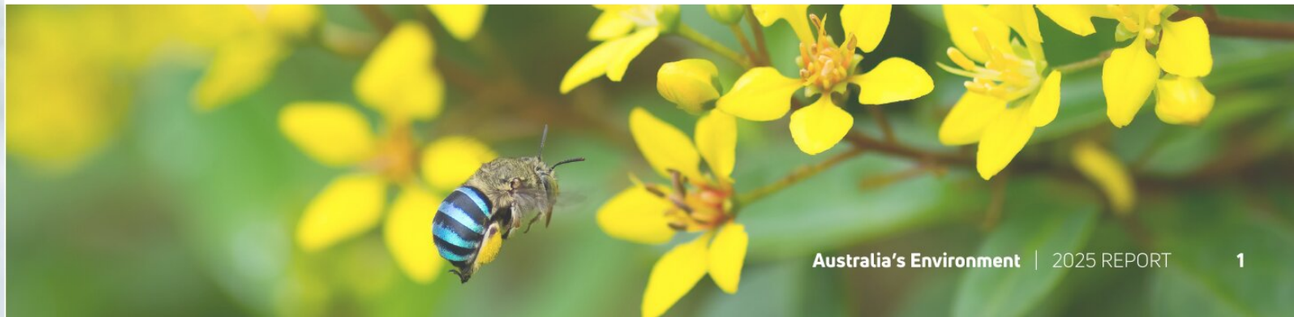
Summary Indicators

At the national scale, environmental conditions remained above average for the fifth year in a row.



National ECS and its components for 2000–2025

The Environmental Condition Score is a score between 0 and 10 expressing condition relative to previous years. It is calculated as the average rankings of component scores (from top to bottom in the bar graph): inundation, streamflow (blue), vegetation growth, leaf area, soil protection, tree cover (green) and the number of hot days (orange).



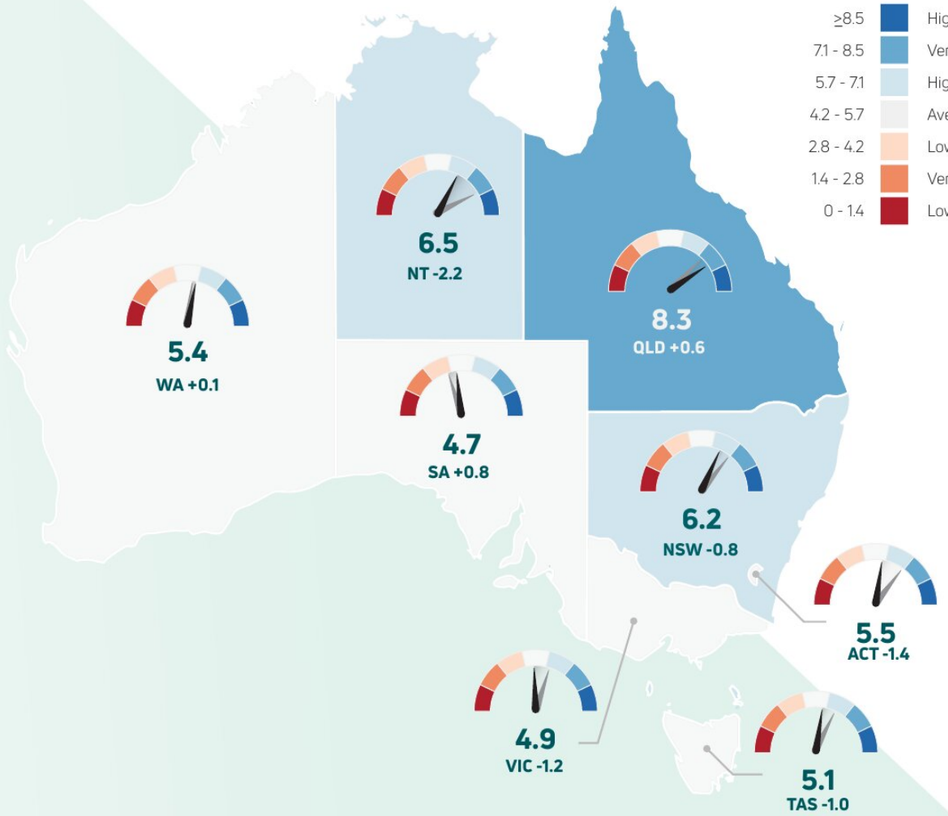
National and State Environment Condition Score (ECS)

7.4
AUS -0.2

The national Environmental Condition Score (ECS) fell by 0.2 points to 7.4 out of ten in 2025, though conditions remained above average for the fifth consecutive year.

ECS scores declined in most states and territories. The greatest declines were in the Northern Territory (from 8.7 to 6.5) and the ACT (from 7.2 to 5.5), with notable declines also in Tasmania (from 6.1 to 5.1) and Victoria (from 6.1 to 4.9).

South Australia and Western Australia bucked the national trend, recording an improvement to 4.7 and no change, respectively. Queensland recorded the largest increase, rising from 7.7 to 8.3.



ECS by state and territory and change from the previous year

National Environment Indicators at a glance

Numbers represent the relative change from 2000–2024 average conditions.
Such a change can be part of a long-term trend or be within normal variability.
Details on each of the indicators shown are provided in this report.

-7% Ozone hole	+0.46°C Ocean temperature	+21% Population	+0.47°C Mean temperature	+16% Days over 35°
+4% Rainfall	-21% Biomass burnt	+13% River flows	+48% Wetlands	+2% Soil moisture
+9% Soil protection	+12% Leaf area	+14% Plant growth	+9% Tree cover	+27% Threatened species

-47% Birds	-33% Mammals	-65% Plants	-67% Frogs	-88% Reptiles	-59% All threatened species

Change in abundance relative to 2000 (latest data are for 2022)

Global Change

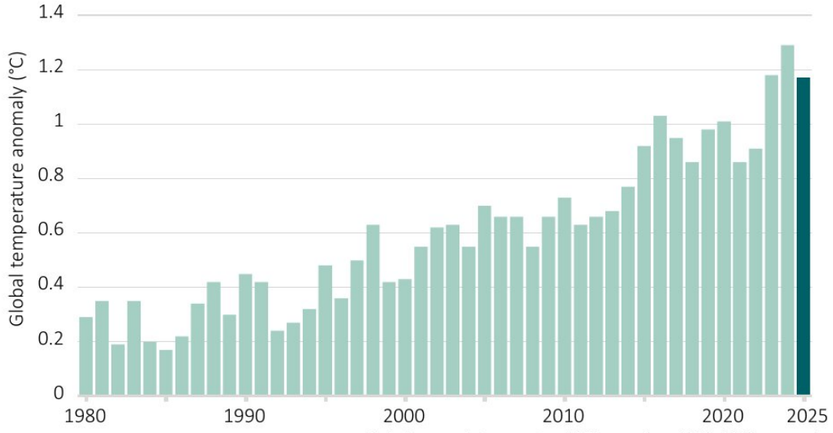
In 2025, the rate of CO_2 growth slowed and temperatures eased slightly from their record highs the year before due to a natural cooling pattern in the Pacific. However, greenhouse gas concentrations and temperatures remain at historically extreme levels, while sea ice continues its long-term decline.

Atmospheric CO_2 concentration increased by 2.23 ppm (parts per million) in 2025, the slowest increase in three years. The slower growth — 33% less than the record year before — is largely attributed to La Niña conditions, a natural cooling pattern in the tropical Pacific that strengthens the uptake of carbon by land vegetation in Australia and elsewhere. Concentrations remained within 2% of the average 2000–2024 growth rate. While the rate of increase slowed in 2025, CO_2 continues to accumulate in the atmosphere. The total concentration reached 427 ppm, a 35% increase from 1960.

Global average air temperature was the third highest on record, 0.12°C lower than the previous record year. The modest cooling reflects the shift from El Niño's warming influence to a weak La Niña in 2025. Temperature was 1.17°C above the 20th-century average and 1.48°C above the pre-industrial average. The last three years rank as the hottest on record globally.

The maximum ozone hole extent was very similar to the previous year (2% larger), 7% smaller than the 2000–2024 average and 23% smaller than the maximum observed in 2000. Year-to-year variation is largely driven by winter weather patterns over Antarctica: unusually mild conditions in August 2025 disrupted the extreme cold needed to trigger ozone destruction. While the hole has not shrunk over the last two decades, it appears to have stabilised. Underlying chemical recovery is slow and obscured by natural year-to-year variation.

The two polar regions changed in opposite directions in 2025. Arctic sea ice extent was 2.5% less than the previous year and reached a record low driven by high winter temperatures and unusual wind patterns. By contrast, Antarctic extent was 1.6% greater than the previous year but has remained below historical values since around 2016. Combined ice extent was near identical to the previous year but still the second-lowest since satellite records began in 1978, and 7% below the 2000–2024 average.



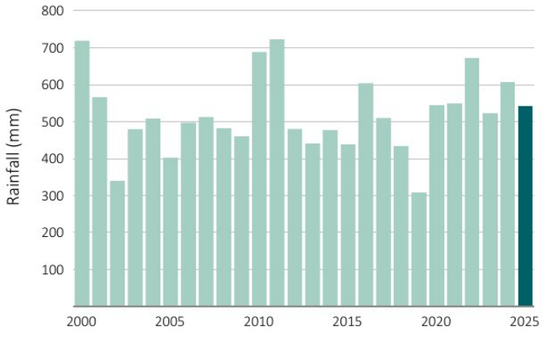
Global mean air temperature (difference from 1901–2000 average) (NOAA) – time series 1980 to 2025

Weather

2025 was characterised by above-average temperatures with the north experiencing one of its wettest years in decades while the south endured a third year of low winter rainfall.

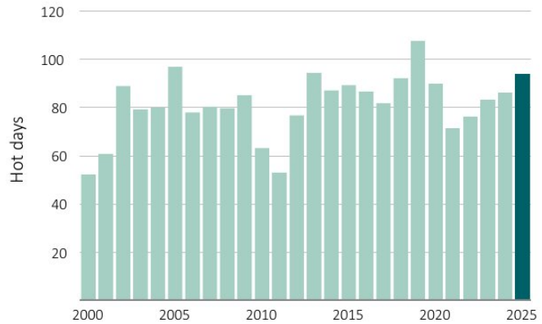
National average rainfall was 538 mm, 4% higher than the 2000–2024 average. Rainfall was above average across much of Queensland — the highest since 2011 — and in parts of the Northern Territory and north-western Western Australia, while below average across most of Victoria, Tasmania and South Australia, much of inland New South Wales and large parts of southern Western Australia. South Australia experienced its driest year since 2019.

Nationally, rainfall was above average in March, April, July and August, and again in November and December. January was notably dry. The monsoon onset at Darwin was the latest since records began in 1957.



Annual rainfall across Australia – graph showing rainfall amounts or anomalies for 2025

Annual average temperature across Australia was the fourth-highest on record, continuing an increasing trend in line with global warming. The national average temperature was 0.47°C above the 2000–2024 average and 1.23°C above the 1961–1990 average.



National average number of days above 35°C – time series 2000 to 2025

The average maximum temperature in 2025 was 42.4°C, 0.10°C higher than the previous year and 0.48°C above the 2000–2024 average. Hot days were more frequent than in 2024, with the national average of 94 hot days being 16% — or 13 days — above the 2000–2024 average, the highest since 2019.

Nights were slightly warmer than the previous year. The national average minimum temperature of 3.1°C was 0.30°C above 2024, though still 0.33°C below the 2000–2024 average, reflecting a relatively cold June — the coldest national minimum since 2017. The average number of frost days was close to both the previous year and the 2000–2024 average.

Snow cover more than doubled compared to 2024, which had been the lowest on record. At 23% above the 2000–2024 average, 2025 represented a recovery from that exceptional low rather than an indication of a broader trend.

Oceans

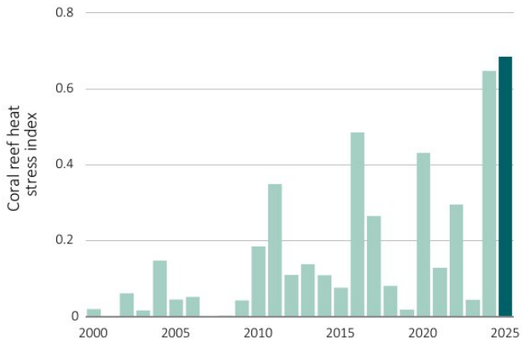
The 2024–25 summer was the most severe on record for coral reef heat stress around Australia, and marine heatwaves caused major ecological impacts on all sides of the continent.

Oceans absorb 93% of the excess heat generated by climate change. Global ocean heat content increased at one of the fastest rates on record in 2025, continuing a steady rise, with ocean temperatures increasing for the sixth consecutive year and in 20 of the last 25 years. The stored heat drives sea level rise, fuels marine heatwaves and intensifies coral bleaching.

Global mean sea level rose by 0.35 mm in 2025, the slowest annual rise since 2017. This largely reflects a temporary effect of La Niña conditions driving increased rainfall over the Amazon basin and shifting water from ocean to land. The long-term increasing sea level trend remains strong, with a rise of 78 mm since 2000 and 98 mm since 1993. Global mean sea surface temperatures were the third highest on record, with the last three years the warmest three on record.

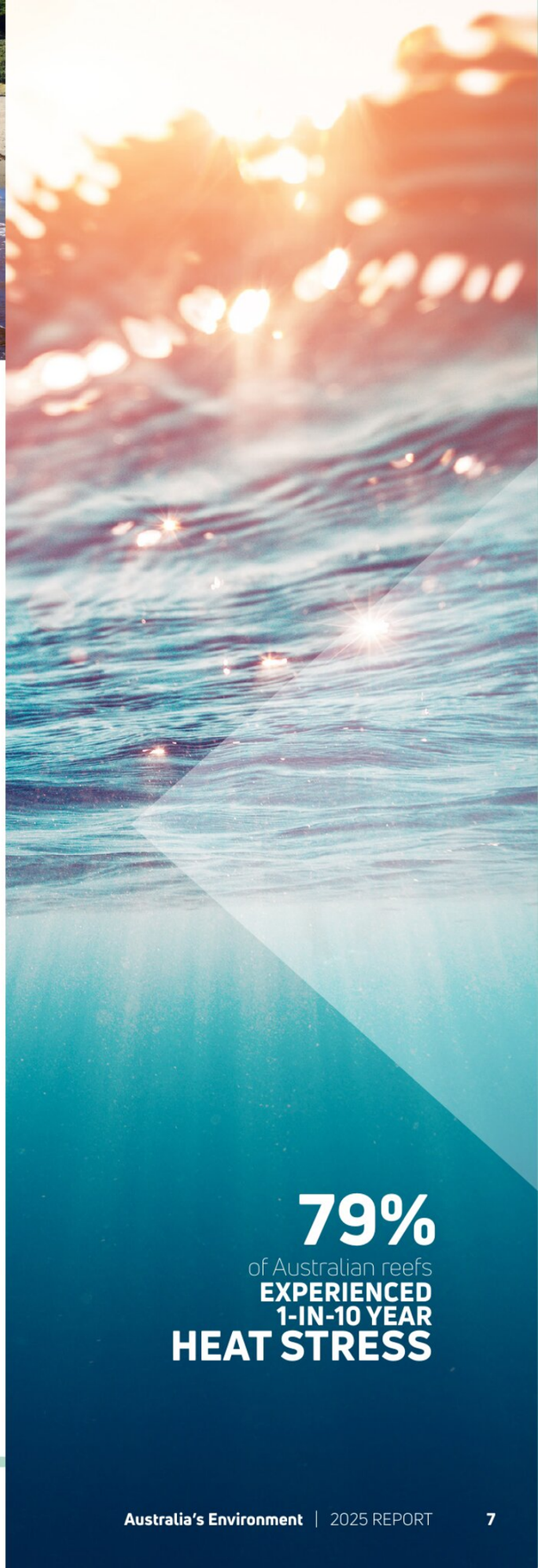
Sea surface temperatures in the Australian region reached their highest recorded level in 2025, exceeding even the previous record set in 2024. The resulting marine heatwaves triggered fish kills, harmful algal blooms — including a large-scale *Karenia cristata* bloom off South Australia that killed millions of animals including weedy seadragons, dolphins and sea lions. High temperatures also contributed to the appearance of tropical species such as Cobia (black kingfish) far outside their normal range.

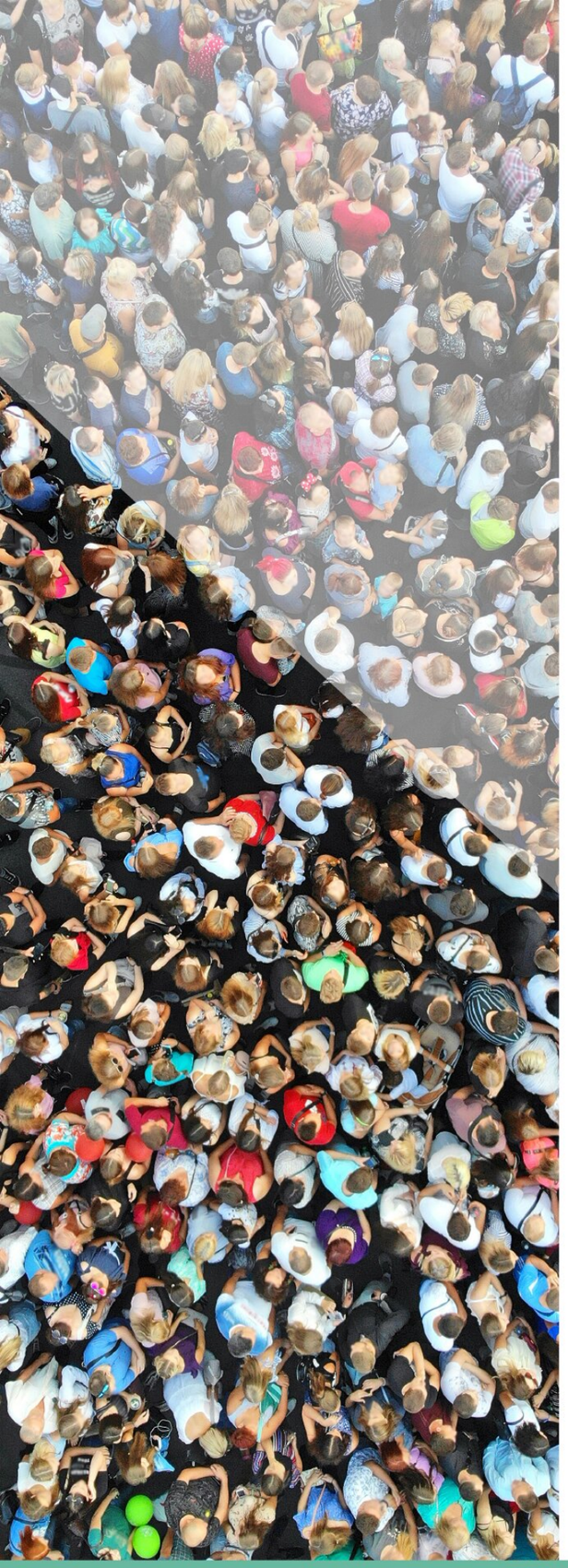
Mean sea level change relative to average 2000 level – time series 2000 to 2025



Annual coral reef heat stress around Australia, 1985–2025, measured as the average extent to which water temperatures at 24 monitored reef locations exceeded levels expected in a typical one in ten year event (Source: NOAA Coral Reef Watch Virtual Stations, coralreefwatch.noaa.gov)

Satellite-monitored reef locations around Australia showed that 79% of stations exceeded their 1-in-10-year heat stress threshold in 2024–25, more than any previous year in the 40-year record. The 2024 mass bleaching event — the fifth on the Great Barrier Reef (GBR) since 2016 and the largest ever recorded in spatial extent — reduced hard coral cover by 14–30% across the reef, with some areas losing over 70%. The northern and southern regions each recorded their largest single-year decline in 39 years of monitoring. A sixth mass bleaching event followed in early 2025, affecting the far northern GBR and reefs across north-western Australia including Ningaloo, the inshore Kimberley and the Rowley Shoals. Since 2016, bleaching seasons have become both more frequent and more severe, a pattern that accelerated sharply in 2024–25. Compounding these pressures, crown-of-thorns starfish outbreaks — which prey on corals already weakened by bleaching — were detected on 22% of surveyed reefs, with established outbreaks in both the northern and southern GBR.



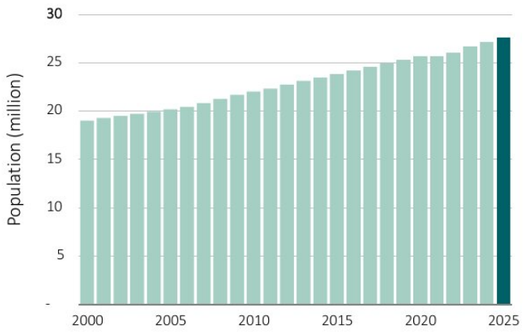


People

Australia's population and economy both grew in 2025 while greenhouse gas emissions fell, showing progress in decoupling economic activity from environmental impact. However, population growth continues to drive rising demand for land and resources, with impacts on the environment.

Australia's population grew by 1.5%, or more than 400,000 people, to reach 27.6 million in 2025. Growth was less than the two years before but 25% higher than the 2000–2024 average population growth rate. Most of the increase occurred in and around the major cities, while population declined in most rural areas. Urban expansion places direct pressure on surrounding native vegetation, waterways and coastal ecosystems through land clearing, increased runoff and greater demand for water supply infrastructure.

Building approvals — a ready, if imperfect, measure of land and resource use for construction — were the highest since 2021 and 7% higher than the 2000–2024 average, reflecting continued pressure on land and the materials and energy needed for construction.



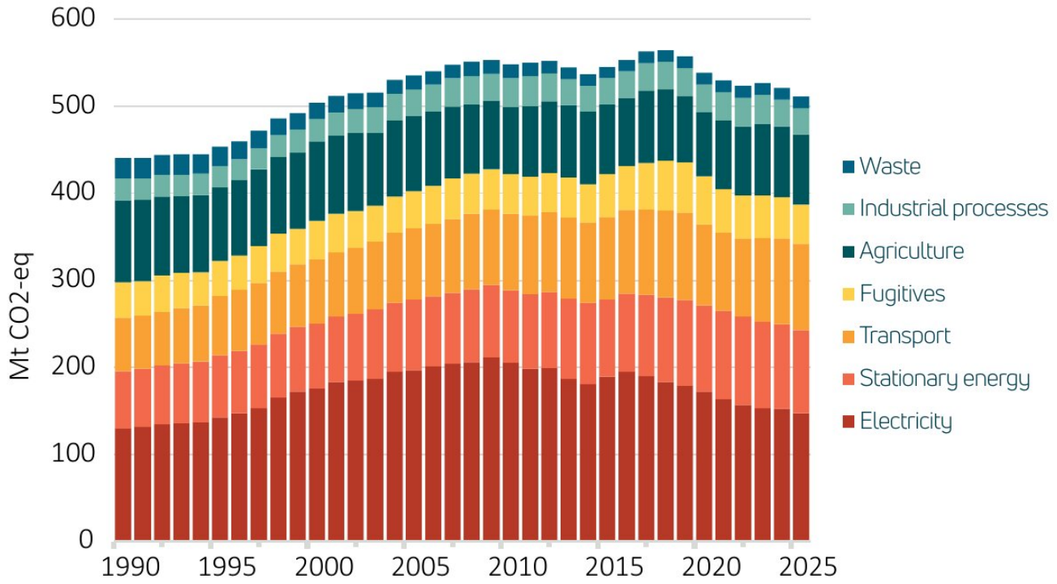
Australia's population growth (source: ABS) since 2000

Australia's
GREENHOUSE GAS
EMISSIONS FELL BY
1.9%

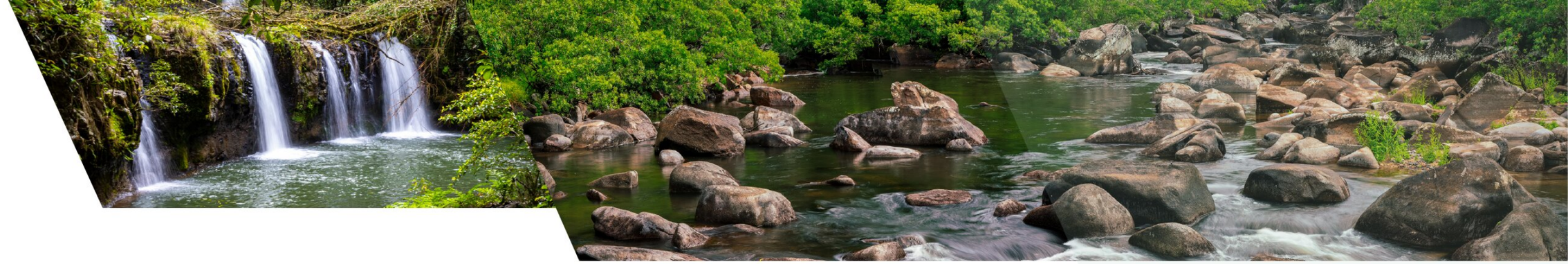
Australia's economy grew by 2.6% in 2025. Despite this, greenhouse gas emissions decreased by 1.9%, implying that the carbon intensity of the economy, measured in emissions per dollar of output, fell by around 4.4%. This continues a long-term but slow trend of decoupling economic activity from environmental impact.

Total emissions were 511 Mt CO_2-eq, 5% below the 2000–2025 average. Emissions decreased across most sectors, with the largest reductions in fugitives (-4.3%), electricity (-3.3%), stationary energy (-2.0%) and industrial processes (-2.2%), and a smaller reduction in agriculture (-0.6%). Transport emissions grew slightly (+0.3%) and waste emissions were unchanged.

Emissions per person fell by 3.4% to 18.5 tonnes CO_2-eq — 30% below the peak of per-capita emissions around 2000–2005. Australia is the world's 15th largest emitter, contributing about 1% of global emissions. Per capita, however, Australians are among the world's greatest greenhouse gas emitters, releasing about three times the global average. This reflects the energy intensity of the economy and the high carbon footprint of Australian lifestyle including transport, housing and consumption.



Australian greenhouse gas emissions by category (excl. land cover change) (DCCEEW) – time series 1990 to 2025

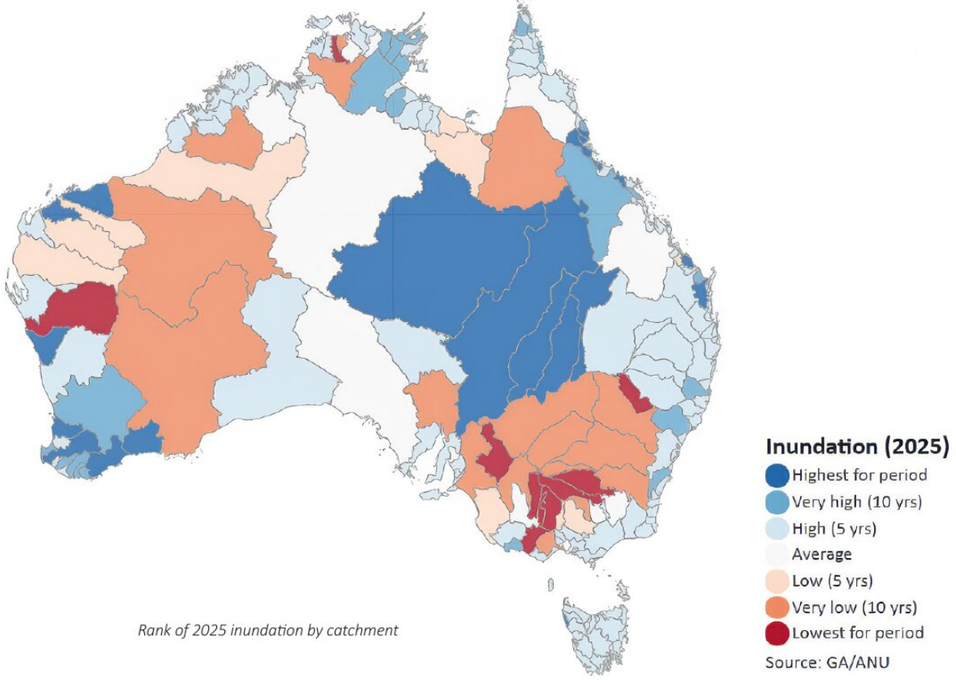


Water

River flows declined from the previous year but remained above the long-term average. Flooding in inland Australia filled Kati Thanda–Lake Eyre while conditions were dry in the Murray Basin.

National river runoff was 111 mm or approximately 850,000 GL — 17% less than 2024 but 13% above the 2000–2024 average. Nationally, runoff was the fifth-highest since 2000, following four consecutive above-average years.

Streamflow was above average across much of north-eastern New South Wales and parts of northern Queensland, consistent with above-average rainfall in those regions. Conversely, streamflow was below average across most of south-eastern Australia including Victoria and Tasmania, and parts of Western Australia, reflecting the third consecutive year of below-average winter rainfall.



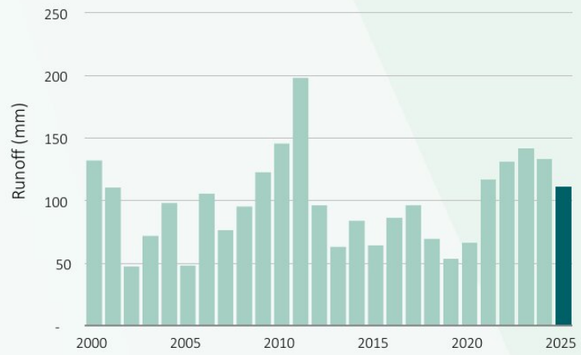
Rank of 2025 inundation by catchment

The year 2025 saw several significant flood events. In late January to early February, persistent heavy monsoon rainfall across coastal north Queensland caused major flooding along multiple rivers between Townsville and Cairns, with some catchments exceeding their previous monthly rainfall records. In March, Tropical Cyclone Alfred brought major flooding to south-east Queensland and north-east New South Wales, with Brisbane recording its highest daily rainfall since 1974. Later in the year, flooding occurred in parts of New South Wales in May and again in November and December as multiple weather systems brought above-average rainfall.

Surface water storage across Australia declined from 73% to 68% of accessible capacity during 2025, continuing a slight decline from 74% at the start of 2024. Storage in the southern Murray–Darling Basin fell from 73% to 59%. Sydney's Warragamba Dam remained very high at 95%. Brisbane's Wivenhoe Dam declined from 90% to 81%, after having risen strongly in 2024. Melbourne water supplies fell from 86% to 75%. Adelaide recovered slightly from 45% to 64%, assisted by desalination, after having fallen sharply during 2024. Perth ended the year at 44% of capacity, remaining low and continuing its long-term decline driven by declining winter rainfall. The city relies on desalination and groundwater to meet demand.

The area inundated during all or part of 2025 was the highest since 2011 and 85% above the 2000–2024 average, but there were strong regional contrasts. Inundation was the highest since at least 2000 across much of central and western Queensland, where exceptional rainfall sent floodwaters through the Channel Country river systems toward Kati Thanda–Lake Eyre. Flood levels along Cooper Creek exceeded the famous 1974 flood at several locations, producing the most significant filling of Kati Thanda–Lake Eyre in at least 15 years. The lake fills completely only a handful of times per century and the 2025 event triggered mass hatching of dormant invertebrates, fish breeding and the arrival of waterbirds from across the continent.

By contrast, inundation was very low across much of inland Western Australia, South Australia and the southern Murray-Darling catchments. The UNSW annual aerial survey of up to 2000 wetlands across a third of the continent counted 31% more water birds than 2024 but 35% fewer than 2023 and below the long-term average. Breeding remained very low for the third consecutive year, concentrated almost entirely at a handful of Queensland Channel Country sites.



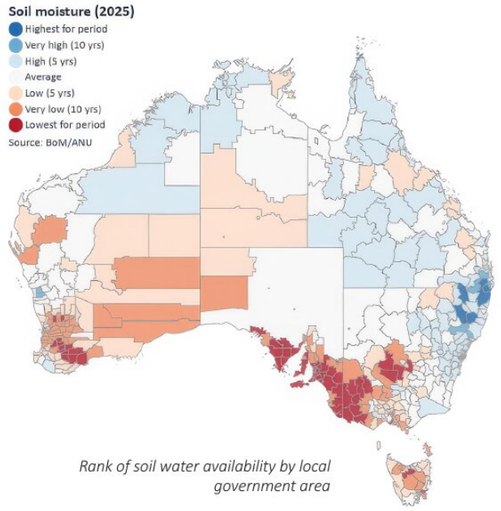
National average runoff

Soils

Soil moisture declined from the previous year but remained above the long-term average. Soil surface protection was among the best on record.

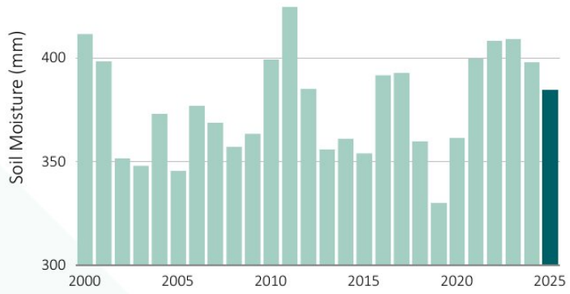
National average soil moisture in 2025 was 385 mm — 13 mm or 3% less than 2024 but still 2% above the 2000–2024 average. This follows four consecutive above-average years and represents the eighth-highest value since 2000.

Soil moisture was highest on record for the 2000–2025 period across coasts and ranges of central and northern NSW, consistent with above-average rainfall in those catchments. Above-average conditions also extended across parts of northern Queensland and the NT Top End. By contrast, soil moisture was the lowest on record across south-west WA and much of southern and central SA, with very low conditions extending into western Victoria, parts of the SA-Victoria border region and Tasmania — consistent with three consecutive years of below-average winter rainfall.

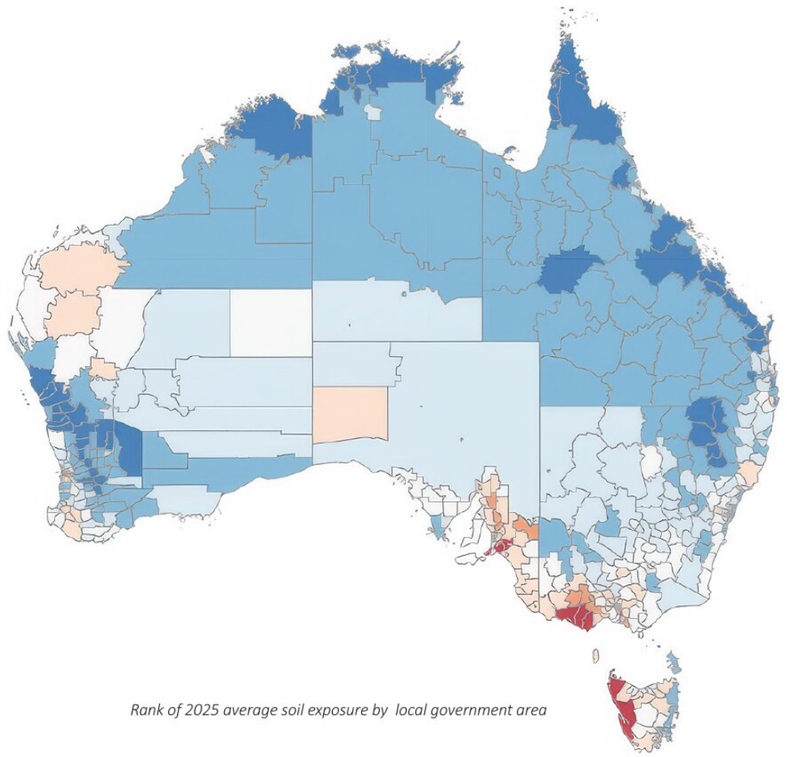


Rank of soil water availability by local government area

Nationally, soil moisture increased until April but then declined through the rest of the year, recovering from November onwards with the onset of the northern wet season. Different patterns occurred in western Victoria and Tasmania, which experienced dry conditions until June, and much of the year, and NSW, which experienced relatively wet conditions until September, though with regional contrasts.



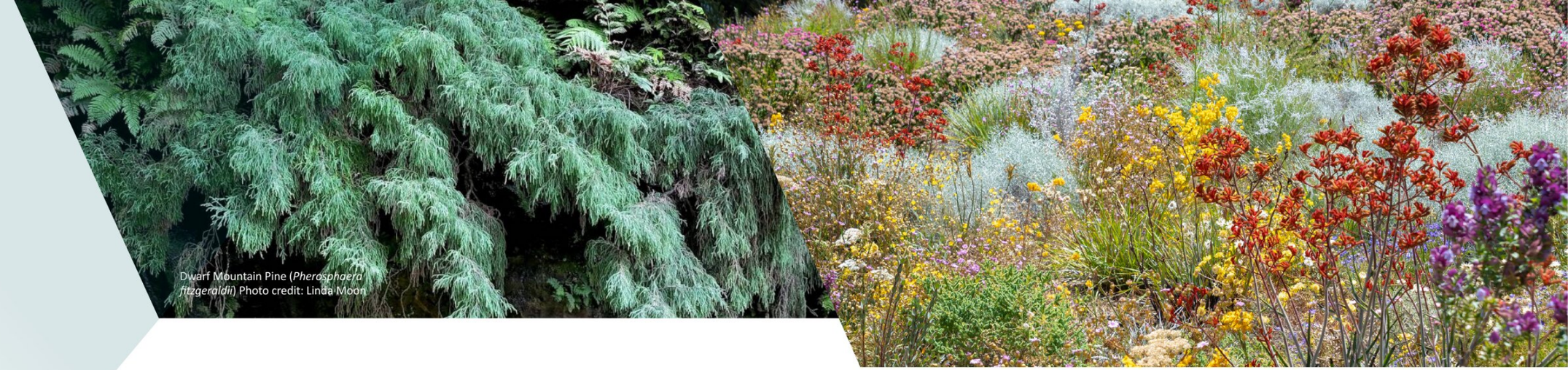
National average soil moisture content



Rank of 2025 average soil exposure by local government area

Despite the decline in moisture, soil surface protection remained excellent. The proportion of exposed soil — bare ground unprotected by vegetation or leaf litter — was 33%, unchanged from 2024 and 9.5% below the 2000–2024 average, the fourth-lowest since 2000. Soil surface protection was excellent across most of Australia, with exposed soil at record low-levels across much of northern Australia, coastal and eastern Queensland and parts of NSW. Conditions were near-average across much of inland WA and central SA. The exception was a concentrated area in south-west WA, where soil exposure reached record high, reflecting the cumulative impact of long-term rainfall decline and vegetation stress in that region.

The contrast between declining soil moisture in the south and well above-average vegetation cover nationally reflects the legacy of a series of wet years, particularly in the north and east. In southern Australia, the combination of declining soil moisture and below-average rainfall for three winters could present an increasing risk of soil degradation and reduced landscape resilience.



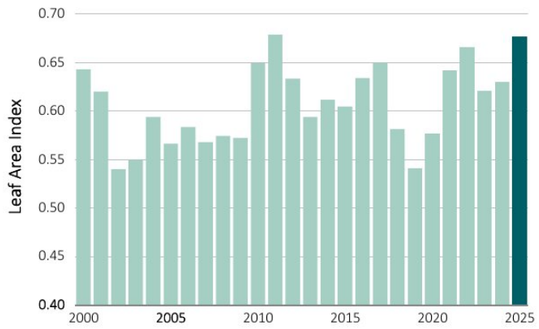
Dwarf Mountain Pine (*Pherosphaera fitzgeraldii*) Photo credit: Linda Moon

Vegetation

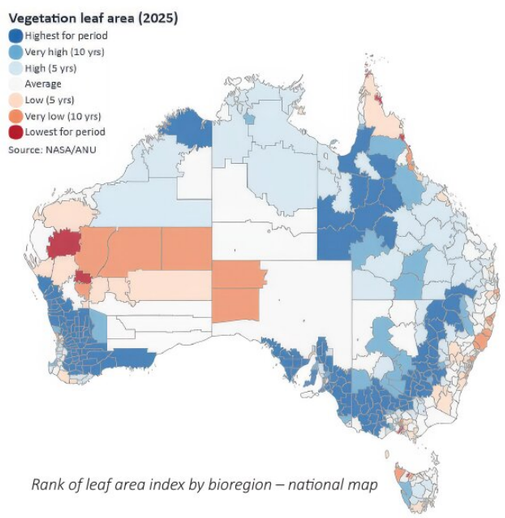
Vegetation condition improved from the previous year and was among the best on record, driven by above-average rainfall across the north and east.

National vegetation condition, measured by the leaf area index — the density of green leaf cover across the landscape — rose 8% from 2024 to reach 0.68, joint highest since national records began in 2000, alongside 2011. It was 12% above the 2000–2024 average. Above-average vegetation conditions were observed across much of Queensland, the Northern Territory and coastal NSW, consistent with above-average rainfall in those regions. Below-average vegetation conditions occurred in southern and south-western WA and parts of SA and Victoria, where soil moisture was also at its lowest on record.

Vegetation growth rates, estimated from a combination of weather and satellite data, were the third highest on record. National carbon uptake — the rate at which vegetation absorbs CO_2 through photosynthesis — was 630 gC/m², only 1% higher than 2024 but 14% above the 2000–2024 average. This can be attributed to good monsoon rainfall across northern Australia and above-average growing conditions across much of the east. The model estimates also include a small long-term increasing trend associated with rising CO_2 concentrations. Growing conditions were near or above average across most of Australia, with the main exception being parts of southern and south-western WA where dry conditions limited vegetation growth.



National average leaf area index – bar chart 2000 to 2025



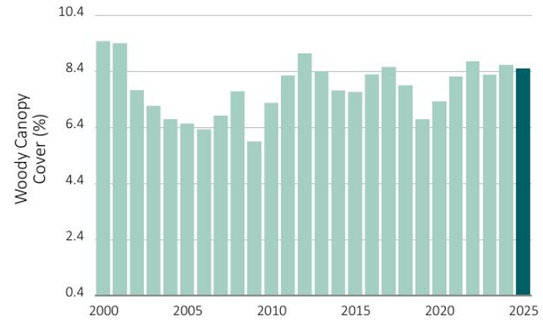
Rank of leaf area index by bioregion – national map

Vegetation primary production was above average in all land use sectors. Nationally, growth conditions were above average for dryland cropping (32% above 2000–2024 average conditions), grazing (+17%) and irrigation (+16%). Growth was closer to average for natural vegetation (+7%), planted and native production forests (+2%) and intensive agricultural, industrial and urban land uses (-9%).

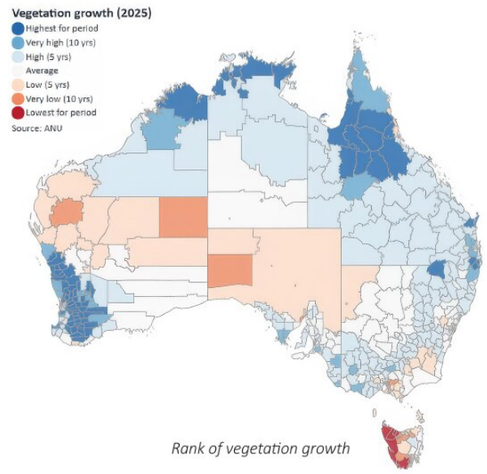
Woody canopy cover — the fraction of land covered by trees and shrubs taller than 2 metres — was 8.4%, slightly below 2024's 8.5%, but 9% above the 2000–2024 average and the sixth-highest value on record. Canopy cover declined slightly across parts of southern and south-eastern Australia, consistent with declining soil moisture in those regions, while remaining stable or increasing across northern Australia and Queensland. These changes can mostly be attributed to changes in water availability rather than land clearing or fire.

Australia's terrestrial vegetation was a large carbon sink in 2025. Net ecosystem exchange — the net uptake of carbon by vegetation after accounting for ecosystem respiration — was 201 gC/m², equivalent to approximately 2972 Mt CO_2, the second-highest value since 2000 and nearly identical to the 2022 record. It was 7% higher than 2024 and 28% above the 2000–2024 average. After subtracting fire emissions of approximately 429 Mt CO_2, the net land carbon sink was around 2543 Mt CO_2 — roughly five times Australia's greenhouse gas emissions in 2025.

This underscores the critical role of Australia's landscape in the global carbon cycle, and the sensitivity of that role to year-to-year variation in rainfall, vegetation growth and fire activity.



National average woody vegetation cover fraction – bar chart 2000 to 2025



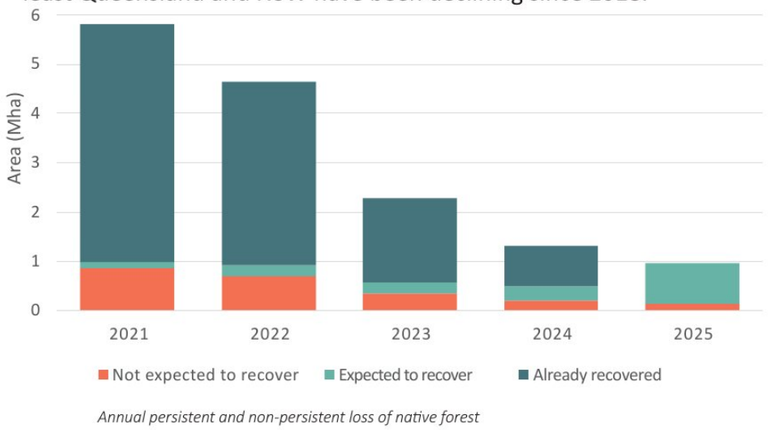
Rank of vegetation growth

Native Forests

Native forest loss fell to 0.96 Mha in 2025, the lowest in at least five years. In terms of extent, native forest gains exceeded the losses, but the ecological value of gained and lost forest can be very different.

Loss of native forests is one of the drivers of ecological decline, reducing habitat for wildlife, fragmenting landscapes and releasing stored carbon. Native forest cover fluctuates naturally in response to drought, fire and dieback, and expands during favourable conditions. Superimposed on these natural cycles, land clearing has permanently removed large areas of native forest.

Detailed annual data on native forest loss and gain are available from 2021 onwards, and show a decline in loss over the five years, from 5.8 Mha to 0.96 Mha in 2025, or 0.6% of the 146 Mha native forest area. These figures should be interpreted with caution, as most forest loss is temporary — 85% or more of lost area typically recovers within five years through natural regrowth. The area not expected to recover within five years, a closer proxy for permanent loss, fell from 0.87 Mha in 2021 to 0.14 Mha (0.1%) in 2025. A substantial component of this persistent loss is likely attributable to land clearing. Clearing rates in at least Queensland and NSW have been declining since 2018.

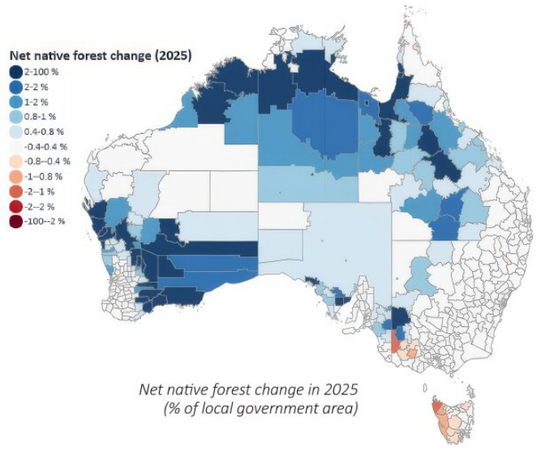


Annual persistent and non-persistent loss of native forest

Australia recorded a net gain of 8.2 Mha or 5.6% of native forest in 2025, up from 4.8 Mha in 2024, driven by vegetation thickening in inland Australia. Net gain is a flawed indicator of ecological value, as regrowing forests support less biodiversity than mature or old-growth forests. Where losses include the actual removal of old-growth, high-integrity stands, ecological damage is likely to persist long after the area is notionally recovered.

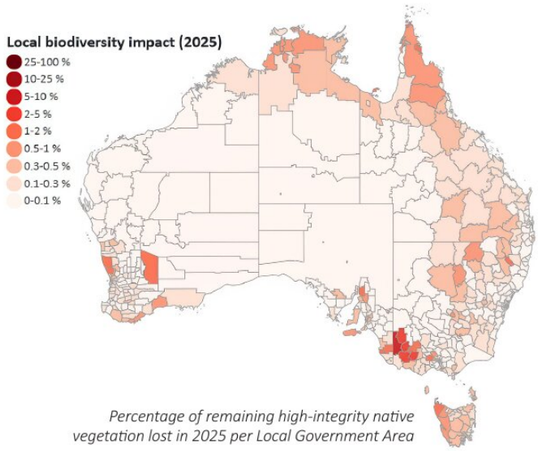
NATIVE FOREST LOSS HAS DECLINED for the **5TH CONSECUTIVE YEAR**

Loss in 2025 was highest in Queensland (39%), the Northern Territory (21%), Western Australia (14%) and New South Wales (11%). Fire was the dominant driver in Victoria and Tasmania, with major losses from the Grampians (135,000 ha) and Little Desert (70,000 ha) fires in Victoria and fires in Tasmania's west-coast World Heritage Area (95,000 ha). These burnt forests may be expected to recover at least partially in the coming years.



Net native forest change in 2025 (% of local government area)

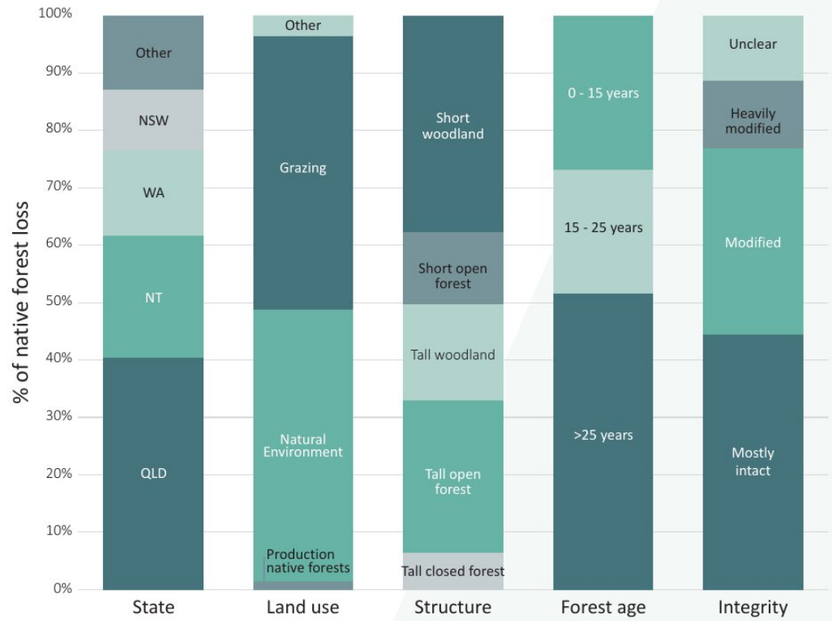
Natural environments and protected areas contributed to most native forest loss (49% of the total lost area) through fire and dieback. Grazing lands contributed to 44% of native forest loss. Native forests logged for wood products represented 1.7% of native forest loss, but these losses are concentrated in tall, older forests.



Percentage of remaining high-integrity native vegetation lost in 2025 per Local Government Area

Most loss occurred in short woodlands and open forests (trees under 5 m), though tall closed forests accounted for 7.2% of the lost area. By age, young regrowth under 15 years comprised 28% of losses, while mature forest over 25 years accounted for 44%. Ecosystem integrity data, measuring how far ecosystems depart from natural conditions, corroborate this: at least 44% of loss occurred in mostly intact native forest and only 14% in already heavily modified stands.

Where high-integrity forests are limited, further loss accelerates fragmentation, intensifies pressure on threatened populations and reduces resilience to future disturbance. The local biodiversity impacts of forest loss in 2025 may be greatest in central-western Victoria, central NSW and south-west WA, where remaining intact forest is scarce and supports locally and nationally threatened species. In western Victoria, fires affected remnant habitat for the Brush-tailed Rock-wallaby and Malleefowl within already-fragmented agricultural landscapes.



Characteristics of native forest loss in 2025

44%
OF NATIVE
FOREST LOSS
involved mature forests

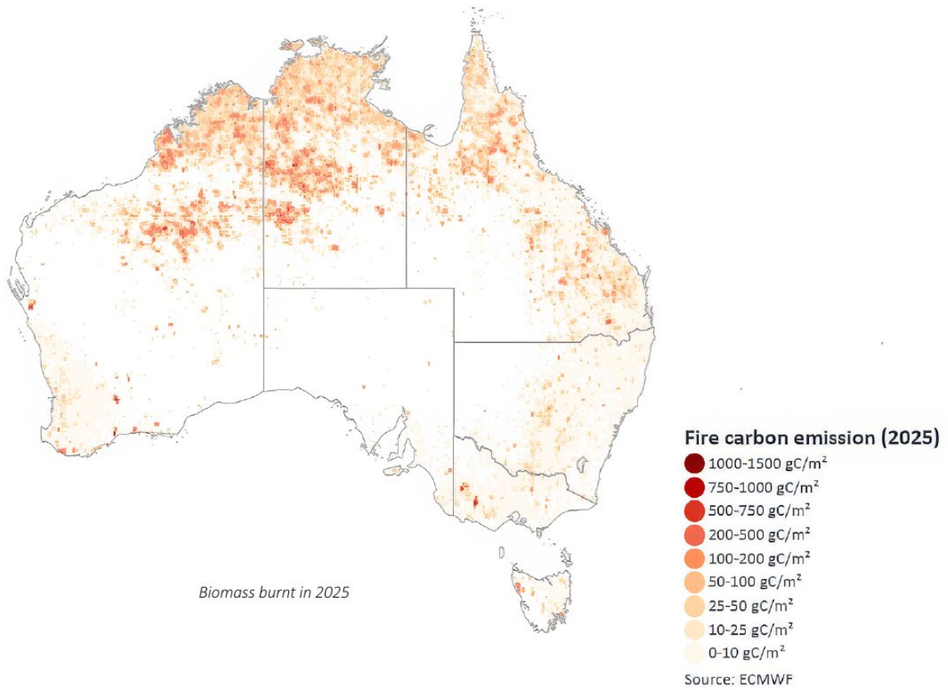
Area burnt was
52%
GREATER
than the previous year

Fire

Fire activity was above average nationally and fuel moisture conditions were drier than the previous year.

Bushfire seasons span two calendar years. The second half of the 2024–25 fire season saw significant activity in Tasmania from early February, where dry lightning started multiple fires in remote national parks and wilderness areas on 3 February. Driven by hot northerly winds and rainfall deficiencies that had persisted across the State since early 2023, the fires burned approximately 95,000 hectares of western and central Tasmania over two months, including areas of endemic vegetation in the Tasmanian Wilderness World Heritage Area.

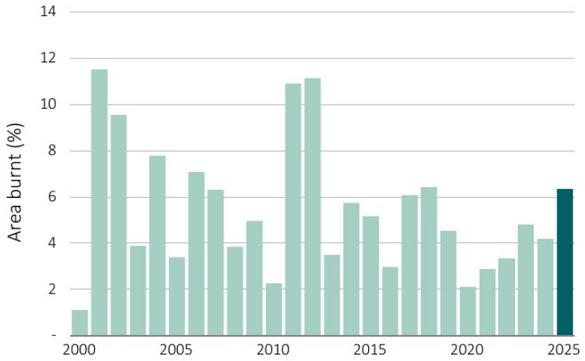
In Victoria, a fire burned through 74,000 hectares of the Grampians National Park over 21 days in late January to early February, destroying four homes. The Grampians had largely recovered from previous fires and supported populations of several threatened species including the southern brush-tailed rock-wallaby, making the ecological impact of this fire significant beyond immediate property losses.



Biomass burnt in 2025

The early 2025–26 season brought an unusually early and severe start, consistent with forecasts of heightened risk for parts of WA, NSW and Victoria. On 6 December, over 50 fires burned across NSW simultaneously. A fire at Koolewong on the Central Coast destroyed 16 homes. In Tasmania, fires at Dolphin Sands destroyed 19 homes on the State's east coast. Two firefighters died during the season — a South Australian CFS volunteer in November and a NSW National Parks officer in December.

The total area burnt in 2025 was 50 Mha, 46% above the previous year and 14% above the 2000–2024 average. Fire activity was well above average in Tasmania and just above average in Queensland and the Northern Territory, while it was below average in NSW and South Australia.



National percentage of area burnt

The minimum live fuel moisture content recorded during 2025 was 4% lower than in 2024 and 2% below the 2000–2024 average, the fifth-lowest value since 2000, indicating somewhat drier landscape conditions than recent years over inland and southern Australia though not at historic extremes.

Total fire carbon emissions were approximately 117 Mt carbon, 12% higher than 2024 but 21% below the 2000–2024 average. As in most years, savanna fires in northern Australia accounted for the majority of fire emissions

Little Tern (*Sternula albifrons*) Photo credit: Sam Gordon

Dwarf Mountain Pine (*Pherosphaera fitzgeraldii*) Photo credit: Linda Moon

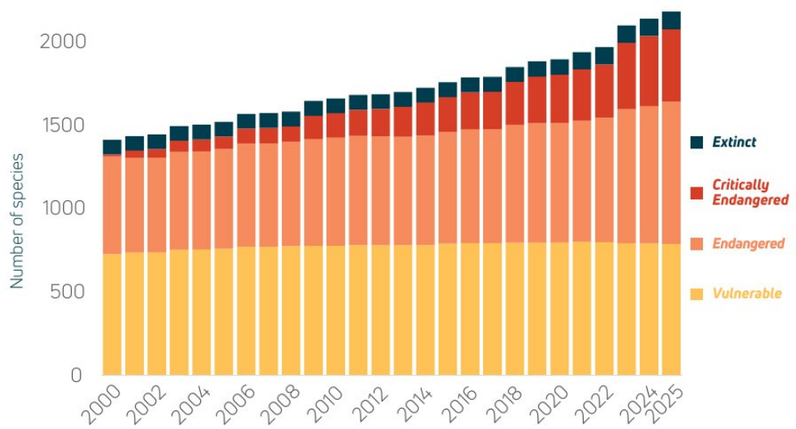
Biodiversity

Australia's threatened species list grew again in 2025, with climate change affecting nine in ten newly listed species. The 2025 Threatened Species Index shows substantial long-term declines across most species groups, with frogs and reptiles experiencing the steepest declines.

The number of threatened species on the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) list increased to 2,175. This represents a 54% increase (763 additions) since 2000.

Thirty-nine species were added to the list in 2025, down from the record 130 added in 2023, but still above the average rate of 31 additions per year. Additionally, eight species were uplisted to a higher category of extinction risk. The proportion of species listed as Critically Endangered (the highest category of threat) has increased from 1% (n = 13) in 2000 to 20% (n = 434) in 2025. No species were downlisted to a lower category of extinction risk.

More non-vertebrate taxa were listed in 2025, a group typically underrepresented on the EPBC Act List. Five Endangered and three Critically Endangered freshwater crayfish in the genus Euastacus were listed. They are threatened by degradation of freshwater habitats due to climate change, and several species face additional pressure from illegal collection for the aquarium trade. Beyond listing changes, over 100 species were newly described in 2025, many of them invertebrates, highlighting the extent of undocumented diversity among these groups.



Number of threatened species by threat category. Data from EPBC listing advice (DCCEEW)

Marine species, also typically underrepresented on the EPBC Act List, saw two additions in 2025: the Australian humpback dolphin *Sousa sahulensis* and the Australian snubfin dolphin *Orcaella heinsohni*, both listed as Vulnerable. They are threatened by entanglement with fishing gear, marine pollution, coastal development, and increasing marine heatwave frequency due to climate change.

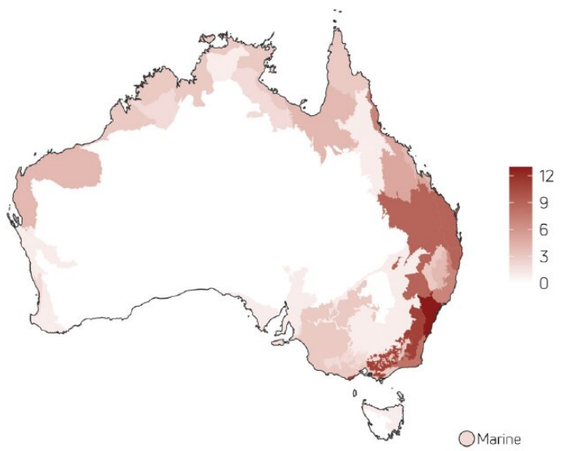
Impacts of the 2019–20 Black Summer bushfires continue to emerge, owing to time lags between disturbance and observable population-level effects, such as reduced recruitment. Further delays arise from the time needed for data collection, analysis, and updating conservation listing advice. The fire extent overlapped the range of 44% of newly listed species (14 plants and 3 frogs) and 63% of uplisted species (8 plants). Looking at the broader period since the fires, 52% of the 289 species added to the list since 2019 were impacted by the fires. Likewise, of the 77 species uplisted to a higher category of threat, 57% were impacted. The degree of overlap with the fire area, burn severity, and population-level impacts varied widely.

The Critically Endangered 'Dry rainforests of south-east New South Wales and eastern Victoria' was added to the List of Threatened Ecological Communities, bringing the total number of listed communities to 106. This community represents some of the southernmost rainforest globally. Its distribution is severely restricted, confined to naturally patchy microclimates such as moist rocky gullies and outcrops. Increased fire frequency is a key threat, compounded by interactions with other threatening processes including climate change.

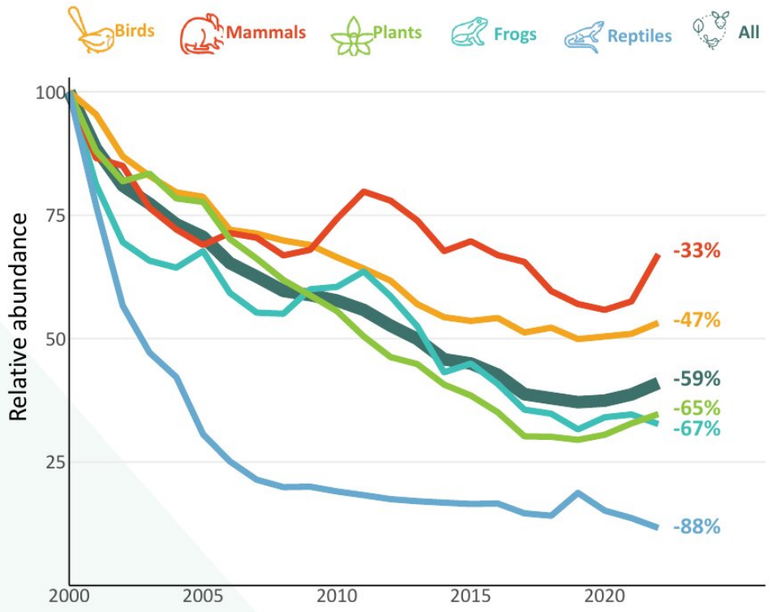
At the bioregional level, the Sydney Basin had the highest number of additions to the threatened species list (13 additions) for the second year in a row, followed by the South Eastern Highlands (11), the Brigalow Belt South (9), and South Eastern Queensland (9).

No species were removed from the list. Two species were replaced on the list by their constituent subspecies. Although the higher-order taxa were formally removed, this did not represent a change in conservation status.

Kati Thanda–Lake Eyre filled in 2025, triggering a significant breeding and growth event. Mass emergence of brine shrimp and subsequent fish spawning attracted millions of breeding birds. Endangered species such as the dusky hopping-mouse *Notomys fuscus* and Bulloo grey grasswren *Amytornis barbatus barbatus* stand to benefit from vegetation growth in the broader basin.



Number of newly listed threatened species in 2025 by bioregion. Data from the Species of National Environmental Significance public grids (DCCEEW).



Relative abundance of different categories of EPBC Act listed threatened species since 2000, as collated by the Threatened Species Index. The Index implements a 3-year lag, such that these trends go up to 2022

Threatened Species Index

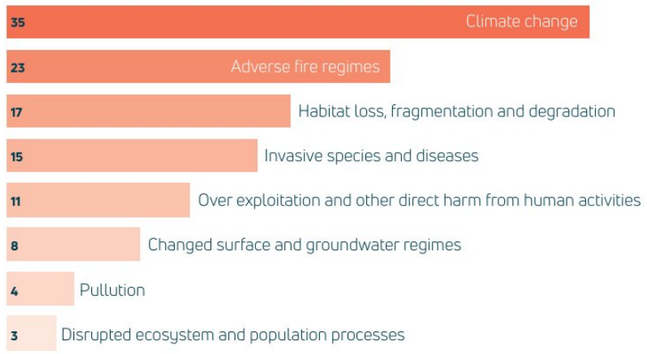
The Threatened Species Index (TSX) tracks changes in the abundance of threatened and near-threatened species in Australia. In 2025, alongside updates to the bird, mammal, plant and amphibian indices, Australia's first Threatened Reptile Index was introduced.

Overall, the species listed as threatened under the EPBC Act and included in the TSX have experienced pronounced long-term declines, averaging 59% since 2000. The 2025 TSX update indicates that overall trends across all groups increased by 2% between 2021 and 2022, building on the 1% increase observed from 2020 to 2021. This upward shift reflects a slowing of earlier declines, with some species groups showing signs of stabilisation. However, additional years of consistent and standardised monitoring are required to more confidently determine whether the observed increase represents a meaningful directional change.

The 2025 TSX update reports on the collation of the first national monitoring dataset for Australia's threatened herpetofauna. Among the reptile and frog species listed as threatened under the EPBC Act and included in the TSX, preliminary data indicate severe long-term declines. In 2022, abundance was, on average, 88% lower for reptiles and 67% lower for frogs than in 2000. These values correspond to average annual declines of around 4% and 3%, respectively. Long-term declines of this magnitude, which are among the steepest recorded for any species group in the TSX, likely reflect the cumulative impacts of habitat loss, invasive species, and disease pressures.

The trend for threatened plants was slightly less severe than that of frogs, averaging 65% since 2000. Declines in herbaceous plants were the most pronounced within the group (-88% on average). Bird abundance in 2022 was 47% lower on average than in 2000, with migratory shorebirds experiencing the largest declines of 56% on average. The trend for threatened mammals showed an average decline of 33% since 2000, representing the least severe decline among the species groups included in the TSX.

The latest TSX data demonstrate that species protection and management can be effective measures for slowing declines. For mammals, for example, conservation actions such as feral predator control and habitat restoration have contributed to a relatively stable overall trend, with populations declining by only 16% on average since 2000. In contrast, mammals without direct conservation management have declined by an average of 37% since 2000.



Current threats to newly listed threatened species, categorised by the IUCN Threats Classification Scheme. Data from EPBC listing advice (DCCEEW)

Threatening processes

The three most prevalent threats to species listed in 2025 were climate change, adverse fire regimes, and habitat loss, fragmentation, and degradation.

Climate change threatens 90% of newly listed species (35 of 39 species). Some species face multiple climate-related pressures; the eight newly listed crayfish are threatened by storms and flooding, temperature extremes, and drought. Adverse fire regimes threaten 59% of newly listed species (23 of 39). Climate change compounds this threat by increasing fire frequency and severity. Habitat loss threatens 44% (17 of 39) of newly listed species.

Most species listed in 2025 were affected by four or more distinct threatening processes. Many of these threats interact. For example, incursion by invasive predators increases with fire and vehicle tracks, all of which independently threaten the night parrot *Pezoporus occidentalis*, uplisted to Critically Endangered. Considered potentially extinct for most of the 20th century, the night parrot was rediscovered in 2013 and has since been confirmed at several other localities. It occurs in long unburnt spinifex grasslands. The known subpopulations are extremely small, with fewer than 50 individuals in each.

Endemic species with restricted ranges are particularly sensitive to habitat loss and degradation. The Barrow cave gudgeon *Milyeringa justitia* was listed as Endangered in 2025. It is endemic to a system of caves and underground streams beneath Barrow Island, where a freshwater aquifer sits above underlying seawater. The island, located 60km off the Pilbara coast of Western Australia, is the site of major oil and gas extraction. The Barrow cave gudgeon and the broader subterranean ecosystem are threatened by effluent, oil spills, and industrial seismic disturbance.

Giant burrowing frog (*Heleioporus australiacus*) Photo credit: Wes Read

About this report

The annual Australia's Environment Report summarises a large amount of observations on the trajectory of our natural resources and ecosystems.

On the website (***ausenv.tern.org.au***) you can find a national summary report, as well as report cards for different types of administrative and geographical regions.

In the accompanying data explorer, the spatial data can be viewed as maps, accounts or charts by region and land use type and downloaded for further use.

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visit the data explorer here

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Cover Image: Lake Eyre-Kati Thanda salt lake filled with water, by Stephen Browne

Photographs provided by: Sam Gordon, Linda Moon, Wes Read, and Adobe Stock Images

About the data

Measures of the condition of natural resources and ecosystems were derived from several spatial data sources.

Weather data was derived by combining station satellite and weather forecast model data. Data on land cover, inundation, fire, soil condition and vegetation leaf area were derived by automated interpretation of satellite imagery.

Biodiversity analysis was based on the DCCEEW SPRAT database and Threatened Species Index *(TSX)*, providing measures of change in the relative abundance of Australia's threatened and near-threatened species at national and regional levels.

The other indicators were estimated by combining the weather and satellite data in ANU's environmental data assimilation system, OzWALD.

For further details on data and methods or to download the data, visit the website ***ausenv.tern.org.au***

About Us

Australia's Environment is produced annually by the Terrestrial Ecosystem Research Network (TERN) and the Australian National University (ANU).

ANU's Centre for Water and Landscape Dynamics develops new methods to measure, monitor and forecast climate, water availability and landscape conditions by combining satellite and field measurements using biophysical modelling and machine learning.

TERN is Australia's long-term ecosystem observatory, an NCRIS-enabled National Research Infrastructure that provides long-term preservation and access to analysis-ready ecosystem data for researchers and decision-makers to help Australia prepare for the future.

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