

Australian Government

# 2022-2032

# THREATENED SPECIES ACTION PLAN

# TOWARDS ZERO EXTINCTIONS



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#### Acknowledgements

Many people have contributed to the development of this Action Plan through consultations for the (now superseded) Threatened Species Strategy 2021-2031 and Threatened Species Strategy Action Plan 2021-2026.

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Finally, thanks to members of the Threatened Species Scientific Committee, threatened species experts, practitioners and the various officials from across the Australian Government who have supported the development of this plan.

# WE ACKNOWLEDGE THE TRADITIONAL OWNERS OF COUNTRY

throughout Australia and their continuing connection to land, sea and community. We pay our respects to them and their cultures and to their elders past, present and future.

# TOWARDS

# **MINISTER'S FOREWORD**



#### I am proud to introduce Australia's 2022–2032 Threatened Species Action Plan: Towards Zero Extinctions.

This Plan sets out our Government's pathway for threatened species conservation and recovery over the next 10 years.

For more than 65,000 years our First Nations have cared for nature, and their wisdom and knowledge is woven through this Plan.

The State of the Environment 2021 report revealed that our Australian environment is in bad shape and getting worse.

Australia is one of the most biodiverse countries on earth, but since colonisation, 100 of our endemic species have become extinct. Australia has lost more mammal species to extinction than any other continent.

If we keep doing what we're doing, more plants and animals will become extinct. Even koalas are now endangered on the east coast of Australia.

Our native wildlife and ecosystems continue to be threatened by climate change, natural disasters, invasive species and human activity.

Australia needs to change what we're doing in order to protect threatened species and ecosystems for the future. This Action Plan sets ambitious targets, such as preventing any new extinctions of plants and animals; protecting and conserving an additional 50 million hectares of Australia's land mass; and better managing feral cats, foxes and gamba grass. By prioritising 110 species and 20 places for conservation, the Plan will drive action where it is needed most and will deliver flow-on benefits to other threatened plants and animals in the same habitats.

The priority species and places have been identified by independent scientists who applied prioritisation principles, including risk of extinction, multiple benefits, and uniqueness.

The Albanese Government is committed to working with government and with non-government stakeholders to protect nature for the future. We don't accept that environmental decline and extinction is inevitable.

This Action Plan was developed with input from First Nations, the community, land managers, scientists, conservation groups and others.

Thanks to the many, many people who have contributed to this Plan.

Tanyafliber

**The Hon Tanya Plibersek MP** Minister for the Environment and Water

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# SUMMARY OF OBJECTIVES AND TARGETS

### **10 Year Objectives**

Objective 1	The risk of extinction is reduced for all priority species
Objective 2	The condition is improved for all priority places
Objective 3	New extinctions of plants and animals are prevented
Objective 4	At least 30 per cent of Australia's land mass is protected and conserved



### Targets by 2027

#### **Species**

**Target 1.** All priority species are on track for improved trajectory

**Target 2.** Implementation of priority actions for priority species is tracked and published

**Target 3.** Species at high risk of imminent extinction are identified and supported to persist

#### **Places and habitats**

**Target 4.** All priority places are on track to have improved condition

**Target 5.** Implementation of priority actions for priority places is tracked and published

**Target 6.** The area managed for conservation is increased by 50 million hectares

#### **Threats**

**Target 7.** Impacts of climate change on priority species and places are identified and actions are underway to strengthen resilience and adaptive capacity

**Target 8.** Feral cats and foxes are managed across all important habitats for susceptible priority species using best practice methods

**Target 9.** Feral cats and foxes are managed in all priority places where they are a key threat to condition, using best practice methods for the location

**Target 10.** Gamba Grass is reduced to an area less than its 2022 range

**Target 11.** Introduction and establishment of new exotic environmental pests, weeds and diseases is reduced

#### Insurance

**Target 12.** Five new populations of appropriate species are added across the national safe haven network to improve representation of invasive predator-susceptible threatened species

**Target 13.** At least 80 per cent of nationally listed threatened plant species are secured in insurance collections

**Target 14.** All nationally listed threatened plant species affected by Myrtle Rust are secured in insurance collections and populations

#### **First Nations**

**Target 15.** First Nations' knowledges are integrated in conservation assessments, processes and planning for threatened species and ecological communities

**Target 16.** First Nations-led recovery activities for threatened species and ecological communities are increased

#### Planning

**Target 17.** Emergency response management and planning for critical biodiversity assets improves across jurisdictions

**Target 18.** National conservation planning for threatened species and ecological communities is contemporary, effective and fit-for-purpose

#### Research

**Target 19.** At least 5 new tools are developed to mitigate the impact of broad-scale threats on threatened species

**Target 20.** Monitoring standards for all priority species are published and monitoring tools and protocols are created for at least 50 per cent of priority species

#### Engagement

**Target 21.** At least half the number of projects that benefit priority species and priority places receive private investment or support from partners

**Target 22.** Community groups lead or participate in recovery activities for all accessible priority species and places, including through citizen science

These 10-year objectives, 5-year targets and key actions set out in this Action Plan provide a focus for improving the trajectories of 110 priority species and 20 priority places.

While all threatened species and natural environments are important, focusing on a limited number of priority species and priority places helps target effort and resources so that tangible outcomes can be achieved, measured and shared.

# INTRODUCTION



#### The challenges to the existence of the plants and animals that define Australia are bigger than ever

Australia's unique biodiversity is part of our national identity. Our plants and animals are central to the cultural identity of First Nations people, who have managed the Australian environment for over 65 thousand years and continue to shape the landscape through their stewardship. Our biodiversity is fundamental to the health of our environment, economy and community. Our native species and ecological communities face significant challenges from accumulated and compounding threats. These include the pervading and invasive threat of pests and weeds, habitat loss and fragmentation, climate change, and more frequent and extensive natural disasters.

With one of the highest rates of extinction in the modern world, it is clear that the trajectory for many of Australia's native plants and animals must change. Australia's threatened species and ecological communities are ours to protect now or be lost forever. Their loss impacts our health, well-being and identity, and erodes the rich cultural heritage of First Nations peoples. The Threatened Species Action Plan 2022-2032 (the Action Plan) maps a pathway to recovery for our nation's threatened wildlife, spanning terrestrial, marine and freshwater environments. It presents a vision to drive practical on-ground efforts and identifies critical action for the recovery of threatened species and ecological communities guided by experts and the Australian public. The Action Plan complements conservation measures under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and other government actions to combat the impacts of climate change.

This Action Plan replaces the Threatened Species Strategy Action Plan 2021-2026. The former plan was evidence-based, developed through extensive stakeholder consultation and received positively by the threatened species management community. But the 2022 State of the Environment Report has shown that the challenges are greater than ever. This Action Plan builds on the former plan and sets new ambition and broader scope to meet the greater challenges we face to protect our biodiversity.

This includes new objectives to prevent new extinctions and to protect and conserve 30 per cent of Australia's land and 30 per cent of our oceans, and targets to increase threatened species recovery activities led by First Nations people.

#### An open invitation

This Action Plan is an invitation for all Australians to collaborate on the recovery of our threatened species and places. We can all make a difference, whether it be through accelerating on-ground action, delivering new research and innovative tools, supporting or participating in community-led activities, or raising awareness about how we can help our threatened species and ecological communities. This Action Plan outlines opportunities for everyone to be involved, from individuals and community groups, to schools, business, land managers, First Nations peoples and governments.

> The Action Plan was developed with input from the community, land managers, scientists, conservation groups, First Nations people and other stakeholders.

We recognise First Nations peoples' continuing connection to land, sea and community, and in implementing this Action Plan, we aim to work in partnership to advance their aspirations to maintain and protect their culture and custodianship of Australia's native plants and animals.

# We all have a part to play in conservation

There are more than 1,900 threatened species in Australia listed under the EPBC Act, of which plants comprise more than half with over 1,300 at risk of extinction. Many Australian mammals are now living as a tiny proportion of their former range and abundance. More than 85 ecological communities – naturally occurring groups of native plants, animals and other organisms that interact in a unique habitat – are also listed as threatened.

The Australian Government plays an important role in coordinating national efforts to conserve and protect our native plants and animals. The scale of the challenge means that conservation success relies on the collective effort and expertise contributed by individuals and partners.

All governments across Australia – federal, state, territory and local – play important roles in biodiversity conservation. Species and ecological communities – and the threats they face – cross boundaries, so a national, coordinated approach to conserving our biodiversity across our broad land and seascapes is essential.

Landholders, communities, First Nations peoples, the private sector, non-government organisations, and regional natural resource management (NRM) groups are taking action to protect and conserve Australia's biodiversity. Indigenous rangers manage nearly half of our nation's protected areas and other regional and remote landscapes and care for country that has enormous natural and cultural value.



Researchers and scientists inform robust and evidence-based decision making, which helps prioritise the actions needed to support species recovery. Dedicated community groups, such as 'Friends of' and citizen science groups are excellent stewards and advocates for the species they support, and they contribute meaningful data and information on how species are faring.

By working together, we can better align efforts and use resources to their best advantage to protect and recover threatened species for the future.

#### Focusing effort can prevent extinction and put species on the path to recovery

Some parts of Australia have particularly high value for the number of threatened species in the area. The Action Plan has a new approach with priority places identified to enable place-based action to support protection and recovery of multiple species. These priority places extend across many types of land and owners. The Australian Government is inviting people to partner with us in building a collaborative effort to help the recovery of threatened species and ecological communities across these regions.

This Action Plan directs focus towards 110 priority threatened species and 20 priority places. These species and places have been carefully selected to represent Australia's diverse land, sea and freshwater environments. The Plan includes specific actions, outcomes, and targets for these priority species and places, developed against 8 action areas identified as fundamental to the recovery of all threatened species.

These species, places, targets and actions will be the focus of national efforts and investments for at least the next ten years. Actions to improve the recovery and condition of priority species and places will also benefit other threatened species and ecological communities.



#### Working strategically

The Action Plan encompasses new and existing initiatives from across the Australian Government to benefit threatened plants, animals and ecosystems and contribute to Australia meeting its national and international responsibilities.

The Australian Government has a primary role in managing and protecting matters of national environmental significance, including threatened species and ecological communities listed under the EPBC Act. The Action Plan also functions to complement the objectives and operation of the EPBC Act. The EPBC Act was reviewed in 2020 and recommendations included setting of clear national environmental standards, improvements to collection and dissemination of environmental data and environmental planning at regional scales. The Action Plan's targets support these recommendations, including:

- clear prioritisation principles for identifying priority species and places for focusing recovery effort, based on comprehensive consultation
- » establishing monitoring protocols and data repositories to improve accessibility and sharing of threatened species data
- » supporting the Threatened Species Scientific Committee's recommendation to utilise a combination of recovery instruments for threatened species, including regional and multi-species plans, so that contemporary, effective conservation approaches are achieved for all threatened species.

Future reforms to the EPBC Act will complement this Action Plan and drive further improvements to threatened species protection and recovery.

# Protecting and conserving our wildlife, together

Many factors influence the success of conservation efforts. Robust ecological knowledge and data, planning and coordination, effective legislation and policies, sufficient resources, monitoring and adaptive management are all key to species recovery. By working together, we can turn around species decline and ensure that future generations can enjoy Australia's unique and diverse native animals, plants and ecological communities.

There are some wonderful success stories about species that are still here thanks to collective action. Predator-free safe havens have prevented the extinction of Mala, and Humpback Whales have made a strong recovery since commercial whaling was banned.

This Action Plan will build on these successes. It will support an increase in efforts to protect, manage and restore our environment so that we have more threatened species recovery success stories to celebrate in the future.



# **OBJECTIVES**

### Our biodiversity is under increased threat from multiple pressures

Australia has experienced significant environmental change since European colonisation. Many exotic plant, animal and pathogen species have been introduced, many vegetation types have been cleared, fire regimes have been modified, and freshwater and coastal environments have been transformed.

The impacts of some threats, such as invasive species, lost habitat and changes in fire regimes, are damaging in isolation, and devastating when they interact.

Over the last 50 years Australia has witnessed a wave of extinctions, with many threatened species and ecological communities suffering today from the cumulative impact of multiple threats.

The 2021 Australia State of the Environment report found that pressures on our biodiversity have intensified in recent years. We need to build the resilience of Australia's threatened species and ecological communities to withstand a range of current, emerging and future threats. To do this, the Threatened Species Action Plan 2022-2032 has 4 clear objectives.

#### **10 Year Objectives**



### **Objective 1**

# The risk of extinction is reduced for all priority species

Focusing on priority threatened species helps target effort and generate benefits for these species and other species that share their habitat. While the ultimate purpose is to remove species from the threatened species list, recovery is complex and takes time, particularly in the context of long-term historical decline. By measuring trajectories – that is whether a species is declining, stabilising or improving – we can assess how a species is tracking on the path to recovery and reduce the risk of its extinction. The priority species are listed at **Appendix 1**.



### **Objective 2**

# The condition is improved for all priority places

Place-based conservation provides coordinated action for both listed threatened species and other native species. Priority places will focus efforts on threatened ecological communities and threatened species habitats, including places where many threatened species are co-located, mainland or island safe havens where major threats can be eliminated, and possible climate refuges for the future. Improvements in condition will be tailored to each place but could include actions to eliminate invasive pests or improve habitat quality. The priority places are listed at **Appendix 2**.





### **Objective 3**

#### New extinctions are prevented

Australia's precious flora and fauna are some of the most unique in the world, and sadly over 100 species have become extinct. For highly imperilled species that are known to still be persisting, preventing their extinction and supporting their recovery requires a national commitment and coordinated approach. Developing a protocol for identifying species most at risk alongside greater investment in monitoring and management tools will facilitate early interventions and drive more effective management action to prevent new extinctions. This objective is about drawing a line in the sand to save species that are currently still alive. It does not apply to species that have already become extinct although are yet to be declared extinct under legislation.



### **Objective 4**

# At least 30 per cent of Australia's land mass is protected and conserved

The Australian Government is committed to strong international leadership on the environment, including through the United Nations Convention on Biological Diversity (CBD). Aligning with ambitious global targets expected to be agreed under the CBD's Post-2020 Global Biodiversity Framework, the Australian Government has set a national goal to protect and conserve 30 per cent of our land and 30 per cent of our oceans by 2030. With Australia's national network of marine parks already covering 45 per cent of our waters, the focus under this Action Plan will be to increase terrestrial areas managed for conservation.





# **FOCUSING OUR EFFORTS**



### Australia's threatened species are very diverse, as are the range of threats impacting them

Determining where to best focus efforts to recover threatened species and communities under this Action Plan is based on scientific advice and wide consultation with threatened species managers, First Nations people, conservation organisations, the conservation research community, land managers, state and territory governments, and the wider Australian public.

Consultation with these stakeholders in 2020 helped us determine six **prioritisation principles** that were used by independent scientists to identify the Action Plan's priority species and places. The 2020 consultation also elicited 8 key **action areas** critical to the success of national threatened species recovery. Referencing these action areas, further input from stakeholder groups and the community in 2021 informed development of targets and actions that would effect measurable, positive change for Australia's threatened species and ecological communities.

This Action Plan presents 22 **targets** to help recover threatened species and ecological communities in Australia between 2022-2027, covering the first half of this 10-year plan. Each 5-year target is backed up by real **actions with timeframes**.

The targets and actions are complementary and not mutually exclusive between action areas, for example, fire management activities to improve habitat condition could also help mitigate the threat of invasive species. Each target will be tracked and reported on individually, examples of relevant targets for each action area are provided on pages 12-13.

#### Six prioritisation principles

- » Risk of extinction prioritising species and places under severe and imminent threat
- » Multiple benefits prioritising species and places where recovery action will benefit other species
- Feasibility and effectiveness prioritising species and places where action can make a difference and is cost-effective
- Importance to people prioritising species and places of cultural significance
- » Uniqueness prioritising species and places that unlike any other
- » Representativeness achieving balance in selected species and places

More information about the prioritisation principles is at **Appendix 3**.

# EIGHT ACTION AREAS



# Mitigating established and emerging threats

Australia has seen a range of threats to our native species introduced since European arrival. Many of these threats now operate across much of our land and in our oceans. They include invasive predators, feral herbivores, invasive weeds, aquatic pests and changes to fire regimes. They operate independently and together to drive species decline.

The Action Plan will support threat mitigation actions that can be practically undertaken now or can begin in the next few years and will make a real difference to threatened species over the next 10 years. These include best practice methods for feral cat and fox management (**Targets 8 and 9**), development of new tools and technologies to effectively and efficiently manage invasive pests and weeds across the landscape (**Target 19**), and practical interventions that are coordinated across tenures and jurisdictions.

# Conserving, restoring and improving habitat

All species need suitable and high-quality habitat to survive and flourish. Improving the extent, connectivity and condition of habitat across our landscapes will support the persistence and recovery of threatened species and ecological communities.

The Action Plan will support the protection, restoration and improvement of habitat for priority threatened species (**Target 2**) and in identified priority places (**Target 5**). It will also support landscape level interventions that benefit threatened species more broadly, such as protecting key habitat in collaboration with landowners and land managers (**Target 21**), connecting key habitat to enable species movement (**Target 6**); and improving fire management practices, including cultural burning by First Nations people (**Target 16**).

### **Emergency preparedness and response**

Species can be pushed dangerously close to extinction or face significant impacts within a short timeframe after emergency events, such as disease outbreaks and bushfires. The Action Plan is intentionally flexible to enable rapid responses to natural disasters and other emergency events to help avert extinctions.

Emergencies could include acute events, such as a severe storm, catastrophic fire, or a disease outbreak in wild populations, but may also include deepening chronic pressures, such as prolonged severe drought. Through the Action Plan, we will improve anticipation and preparation for emergencies so that the impact of future natural disasters and other damaging events on our threatened species is reduced (**Target 17**), recognising that the intensity and frequency of such events is likely to increase with a changing climate.

### **Climate change adaptation and resilience**

The changing climate is affecting species and ecosystems in a multitude of ways, such as driving changes in species distribution and behaviour, altering the composition and functioning of ecological communities, or exacerbating impacts of other threats. Reducing impact of established pressures on threatened species, such as by tackling invasive pests and weeds and conserving habitat, will build the resilience of our native species and support their capacity to adapt to a changing climate. There are also targeted actions that can improve adaptive capacity of our native species and places (**Target 7**).

As parts of the landscape become unsuitable for species survival, translocations of species and populations into new, more suitable locations outside their natural range may be needed, along with habitat restoration and targeted environmental water delivery. This could include planting species and provenances that are more likely to survive and thrive in a changing climate.



### Effective planning for conservation

Conservation planning is needed to protect and recover threatened species and threatened ecological communities. Conservation plans should be evidence-based and effectively deal with the challenges ahead. This may include strategies for individual species, coupled with regional approaches to species protection and threat abatement. The conservation planning regime should ensure strategies to protect and recover species and ecological communities are developed quickly and remain contemporary, based on sound data and monitoring. The Action Plan will support strengthening conservation planning approaches for priority threatened species and in priority places.

The Action Plan will be guided by the Threatened Species Scientific Committee's advice on the best conservation planning outcomes for priority species and places. This may include greater focus on regional approaches to identify recovery priorities and inform investment and regulatory decisions at landscape scale (**Target 18**), aligning with the 2020 EPBC Act review.

Conservation approaches will continue to be developed and updated in collaboration with stakeholders. They will focus on supporting integration of First Nations Knowledges in conservation assessments, processes and planning to guide recovery actions, research and monitoring activities (**Target 15**).

#### **Knowledge and tools**

Collecting and managing information about Australia's environment underpins evidence-based decisions. By drawing on science – engaging with scientists, citizen scientists and data managers – and by incorporating First Nations peoples' unique ecological knowledge into recovery programs, we can be confident we are choosing the actions most likely to succeed.

The Action Plan will support the development of monitoring standards and national data-sharing for priority threatened species (**Target 20**), as well as new tools and technologies to improve threatened species and ecological communities monitoring and drive threatened species recovery at scale (**Target 19**).

### Forging stronger partnerships

The Action Plan provides a platform for the Australian Government to strengthen relationships with existing conservation partners and build relationships with new partners – it is an invitation to the community to work together on shared threatened species priorities.

Through the Action Plan, the Australian Government will work closely with First Nations people, natural resource management organisations, state and territory government agencies, scientists, land managers, non-government organisations and local community groups to identify shared priorities and support and showcase local action (**Targets 6, 16 and 22**).

Greater collaboration is also needed between governments and the private sector to invest in the environment. Innovative financing mechanisms and co-funding arrangements will be explored to help make the conservation dollars go further, and to support the private sector's growing ambitions to invest in the management and restoration of our biodiversity (**Target 21**).

### **Community leadership and engagement**

Creating opportunities for Australians to learn more about and interact with our threatened species builds awareness and generates increased public support for action and investment in recovery.

The Australian Government will continue efforts to raise the profile of Australia's lesser-known species to help the Australian community get to know our remarkable plants and animals, understand what threats they face and promote ways in which the community can lead or get involved in recovery efforts (**Target 22**).

# OUR APPROACH

### For many species, recovery is complex and needs a long-term approach

This Action Plan has 10-year objectives that will be met through consecutive 5-year targets and actions. The 2022 targets and actions will be reviewed in 2027, to ensure the focus of our efforts remains both strategic and responsive.

The targets ensure accountability, articulating a set of priority actions to coordinate collective efforts against that we will track and publish progress on. They help focus action where it is needed most, where we know we can be effective, and where the greatest benefit to threatened species and places can be achieved.

Connected and complementary, each of the 5-year targets and actions will help us track toward achieving the Action Plan's high-level 10-year objectives. Reporting on progress in 2025 and 2027 will highlight where we need to adjust priorities, targets and actions, to inform the second set of 5-year targets and actions that will commence in 2027 and continue until 2032.

The bedrock of our approach to meeting the targets is partnerships and engagement, informed by a continuous improvement cycle of observation, applying our learning, solid planning and implementing informed action.

The 22 targets for 2022-2027 are summarised on pages 2 & 3, clustered by 8 categories:

- » Species targets
- Places and habitat targets **>>**
- Threat targets >>
- Insurance targets >>
- » First Nations targets
- **Planning targets >>**
- **>> Research targets**
- » Engagement targets

### Observation

Continuous improvement What we can do better What works Share experiences New opportunities

Applied learning Data collection New tools Science & research Sharing data

#### Planning **Partnerships** Conservation

planning Climate adaptation and resilience First Nations engagement Emergency preparedness

Figure 1: Continuous

improvement

#### Action

and

Engagement

Right-way science

Research

Collaboration

Threat management Emergency management Habitat management

# Targets to achieve by 2027

# **Species targets**

### **Target 1** All priority species are on track for improved trajectory

### Target 2

Implementation of priority actions for priority species is tracked and published



#### Why is this important?

While all threatened species and natural environments are important, focusing on a limited number of priority species helps target effort and resources so that tangible outcomes can be achieved, measured and shared.

A key finding from the Threatened Species Strategy 2015-2020 was that recovery for many species takes time, especially for species that take many years to reproduce. To get priority species 'on track' for achieving improved trajectories when the Action Plan concludes in 2032, Targets 1 and 2 will ensure that a range of activities will be underway to support each priority species by at least 2027. These activities should reduce the risk of extinction for these species in the longer-term.

The 110 priority species were carefully and strategically selected according to the prioritisation principles (Appendix 3). Improving the trajectories of these priority species should also benefit many other threatened species, ecological communities and native wildlife that share the same range or have similar threats.

The Action Plan will begin by establishing baseline status and trends for each priority species, then guided by relevant conservation planning documents, identify key recovery actions to prioritise and finally measure and report on progress.

#### What will we do?

#### ACTION

Open a profile page for each priority species on the Action Plan website that includes:

- » population and distribution for the 2022 Action Plan baseline year
- » identification of habitat that is important and threats that need to be addressed for the species' long-term survival and recovery
- » identification of the actions and indicators we will measure between 2022-2027 to determine whether the species is on track for an improved trajectory by 2032
- » prioritisation of key recovery actions to be supported, guided by relevant species conservation plans and review of activities already underway by other partners.

#### ACTION

#### **WHEN 2022**

**WHEN 2022** 

Identify habitat important to the survival of priority species and identify actions required to improve this habitat.

#### **ACTION**

#### WHEN 2022-2027

Commence or continue key recovery actions and/or build on activities underway, expanding collective recovery and threat management.

Continually update species' profiles as priority actions are implemented.

#### ACTION

#### WHEN 2027

Assess the trajectories of all priority species against the publicly available 2022 baselines and the measures of success.

# **Species targets**

**Target 3** Species at high risk of imminent extinction are identified and supported to persist

#### Why is this important?

The period since European colonisation in Australia has seen the introduction of land management practices not suitable to the environment or climate, and a diverse array of new threats to our native species. Our country has experienced significant biodiversity loss and decline over this period. Over 100 extinctions of Australian species have been recognised under national environmental law, due to current threats and the legacy of historic threats. Sadly, legislative recognition of more extinctions is likely, for species where the last individuals have already perished but extinction is yet to be confirmed.

We can reduce the likelihood of future extinctions by being aware of which species are critically imperilled. New research and information helps inform this awareness. Formal recognition occurs by listing species at risk of extinction under the EPBC Act as well as state and territory legislation, and these species have conservation strategies to rebuild their populations. At times, species may be pushed dangerously close to extinction, for example through a major event, or face significant impacts within short timeframes. In these situations, there may be a need for rapid intervention to reduce the risk of imminent extinction. The ability to respond quickly where required is needed, followed by work with partners to focus efforts on recovery.

#### What will we do?

#### ACTION

#### WHEN 2023

Develop and publish guidance on how to identify species that are at high risk of imminent extinction, whether from a major event or unanticipated significant impacts within short timeframes, then identify and implement urgent management interventions.



# **Places and habitat targets**

# Target 4All priority places are<br/>on track for improved<br/>condition

### **Target 5**

#### Implementation of priority actions for priority places is tracked and published

#### Why is this important?

While all natural environments are important, focusing on a limited number of priority places will help target effort and resources so that tangible outcomes can be achieved, measured and shared. To get priority places 'on track' for achieving improved condition when the Action Plan concludes in 2032, Targets 4 and 5 will ensure that a range of activities will be underway to support each priority place by at least 2027.

The 20 priority places were carefully and strategically selected to ensure a good balance between diversity of threatened species and ecological communities, importance to First Nations people, and representativeness across Australia's widely varied species, landscapes and seascapes. Improving the condition of these priority places will benefit not only threatened species, but also many other species of native plants and wildlife. In line with the objectives of the EPBC Act, this approach broadens the focus from supporting individual species to also protecting and restoring wider ecosystems through landscape-scale conservation activities.

The Action Plan will begin by establishing baseline status and trends for each priority place, identifying key recovery actions to prioritise and finally measuring and reporting on progress.





#### Location of priority places (More information is on pages 46-47)

#### What will we do?

ACTION	WHEN MID-2023
Open a profile page for each priority p website that includes:	lace on the Action Plan
» key indicators for condition, to mea Action Plan baseline year	asure against the 2022
» habitat that is important for threate threatened ecological communities to be addressed to secure or impro-	ened species and and threats that need ove this habitat
> threats that need to be addressed to overall condition for threatened spectrum	to improve the place's ecies
» identification of the actions and ind between 2023-2027 to determine w track for improved condition by 203	licators we will measure vhether the place is on 32
» key recovery actions to be supporte guided by existing conservation ma regional environmental plans and r already underway by other partner	ed are prioritised, anagement and/or review of activities rs.
ACTION	WHEN 2022-2027
Commence or continue key recovery a activities underway, expanding collecti management.	ctions and/or build on ve recovery and threat

Continually update places profiles as priority actions are implemented.

#### ACTION

WHEN 2023

Identify key actions to restore habitat in priority places where this will be a key measure of condition change, using conservation planning documents and other relevant conservation management plans.

#### ACTION

#### WHEN 2027

Assess the condition of all priority places against the publicly available 2023 baselines and the measures of success.

# **Places and habitat targets**

### **Target 6** The area managed for conservation is increased by 50 million hectares

#### Why is this important?

Habitat loss, fragmentation and degradation reduces the area that threatened plants and animals have in which to survive. These processes have a major impact on nationally listed threatened species, including at least 70 of the priority species.

The Australian Government is committed to strong international leadership on the environment, including through the United Nations Convention on Biological Diversity (CBD). Australia supports the development of an ambitious Post-2020 Global Biodiversity Framework under the CBD to halt and reverse biodiversity loss by 2030. Australia has also committed to strong domestic action including a national goal to protect and conserve 30 per cent of Australia's land and 30 per cent of Australia's oceans by 2030. Australia's National Representative System of Marine Protected Areas (made up of Australian, state and territory government marine parks) covers 45 per cent of Australian waters, or around 4 million square kilometres. This means we have one of the largest representative systems of marine protected areas in the world. Within our marine park network, need and scope for increasing levels of protection, for example through increasing green zones, will be considered as part of the 10-yearly statutory review processes established for national marine park management plans.

On land, our National Reserve System covers around 22 per cent of Australia's landmass (over 169 million hectares). Protecting and conserving more than 30 per cent of Australia's landmass by 2032 will require an increase in the conservation estate of over 61 million hectares. Within the 5-year timeframe of this Action Plan target, we will aim for an increase of 50 million hectares of land and sea managed for conservation by 2027, putting us firmly on the trajectory to meet our 30 per cent goal by 2030.



Within protected areas, increasing First Nations custodianship of land and sea country will make a significant contribution to restoring habitat and achieving healthy ecosystems. Working with communities, organisations and land managers to restore and conserve habitat, including restoring connectivity where it's beneficial, will help threatened species and threatened ecological communities to persist in the landscape and adapt to climate change.



#### What will we do?

#### **ACTION**

#### WHEN 2027

Support 45 million hectares of Indigenous-led place-based planning for integrated land and sea management, such as through Indigenous Protected Areas, and activities to improve habitat for priority species and places.

#### ACTION

#### WHEN 2027

Support activities to improve condition of at least 5 million hectares of important habitat for priority species and within priority places.

#### ACTION

#### WHEN 2022-2027

Coordinate activities across jurisdictional and regional borders to improve habitat and connectivity where appropriate.

#### ACTION

#### WHEN 2022-2027

Work cooperatively with all Commonwealth land holders and managers to improve habitat across the Commonwealth estate.

#### Resources

National standards for the practice of ecological restoration in Australia, Society of Ecological Restoration Australasia: seraustralasia.com/standards/home.html Landcare Australia's find a group: landcareaustralia.org.au/landcare-get-involved/findagroup/

### **Target 7**

Impacts of climate change on priority species and places are identified and actions are underway to strengthen resilience and adaptive capacity

#### Why is this important?

The changing climate is affecting Australia's biodiversity currently and will continue to threaten our species and ecological communities. Individual species may see altered distribution, phenology and behaviour, in turn resulting in changes to the composition and function of ecosystems and ecological communities. Climatic shifts can exacerbate the impacts of existing pressures, such as habitat fragmentation and invasive species, on threatened species and places.

The Australian Government's participation in global efforts to reduce greenhouse gas emissions will work towards minimising the impacts of climate change, but targeted actions are needed to assist our species and places to adapt to a changing climate and ensure their persistence into the future. However, there is a paucity of information on how climate change will affect many of our species and ecosystems, making it difficult to know where and how on-ground protection and management efforts should be directed.

A critical first step in tackling climate change for our threatened species will be improving our understanding of how changes in climate are projected to affect threatened species and places, as well as altering the impact from other threats to these species and places. Actions to support the resilience of species and places will be informed by best available knowledge, with action taken before it is too late.

This work will be supported by programs such as the National Environmental Science Program Climate Adaptation cross-cutting initiative. This forms part of the implementation of the Australian Government's *National Climate Resilience and Adaptation Strategy 2021-2025*, which seeks to ensure Australia is better positioned to anticipate, manage and adapt to the impacts of climate change.

#### What will we do?

#### ACTION

Support relevant research to improve our understanding of how climate change will impact priority species and places, as well as how climate change may alter risk from the other threats they face.

#### ACTION

#### WHEN 2022-2027

WHEN 2022-2027

For susceptible species, update conservation plans to include support for adaptation measures to actively mitigate climate change risk.

#### **ACTION**

#### WHEN 2022-2027

Identify and undertake management activities to build resilience and/or improve adaptive capacity of priority species and places vulnerable to climate change. Actions to enhance resilience and adaptability could include restoring habitat that will be refugia in the future, re-establishing habitat corridors to help migration and addressing other threats to reduce overall pressures on species.

#### Resources

**National Environmental Science Program:** dcceew.gov.au/science-research/nesp

National Climate Resilience and Adaptation Strategy: dcceew.gov.au/climate-change/policy/adaptation/strategy

Department of Climate Change, Energy, the Environment and Water's Species Profile and Threats Database: environment.gov.au/cgi-bin/sprat/public/sprat.pl



### **Target 8**

Feral cats and foxes are managed across all important habitats for susceptible priority species using best practice methods

### Target 9

Feral cats and foxes are managed in all priority places where they are a key threat to condition, using best practice methods for the location

#### Why is this important?

Across Australia, feral cats and European red foxes kill native wildlife for food and threaten more than 120 nationally listed threatened species with extinction, and through impacting the balance of fauna species, can degrade the condition of threatened ecological communities.

Reducing the impact of these invasive predators will support the recovery of at least 38 priority species and many more nationally listed threatened species in priority places and across the landscape.

This work focuses on areas where Commonwealth leadership can improve landscape-scale outcomes, including linking efforts between state and territory government and other environment conservation managers.

#### What will we do?

#### **ACTION**

Define best practice landscape-scale feral predator control for the priority species and/or locations targeted for action through to 2027. This includes locations identified within priority places and important habitat for predator-susceptible priority species.

#### **ACTION**

#### WHEN 2022-2027

**WHEN 2023** 

Promote best practice landscape-scale feral predator management across priority places and important habitat for predator-susceptible priority species.

#### **ACTION**

WHEN 2022-2027

Promote best practice management through the National Feral Cat and Fox Coordinator and Feral Cat Taskforce to coordinate consistent on-ground action.

#### Resources

#### Approved threat abatement planning documents:

dcceew.gov.au/environment/biodiversity/threatened/threat-abatement-plans/ approved

#### Feral cat control:

dcceew.gov.au/environment/invasive-species/feral-animals-australia/feral-cats



### **Target 10** Gamba Grass is reduced to an area less than its 2022 range

#### Why is this important?

In northern Australia, the spread of exotic Gamba Grass is threatening native plants by displacing them and threatening native animals by fuelling intense fires.

Reducing the impact of this invasive plant will support the recovery of at least 5 priority species and many more nationally listed threatened species in priority places where changed fire regimes are negatively impacting the landscape.

This builds on work to assess risks to threatened species posed by plants identified by the National Priority List of Exotic Environmental Pests, Weeds and Disease Implementation Plan.

#### What will we do?

#### ACTION

**WHEN 2022** 

Develop a best practice management manual for the control of Gamba Grass and promote to land managers and governments.

#### ACTION

#### WHEN 2022-2027

Promote best practice control activities to tackle the threat of Gamba Grass and other invasive grasses in priority places and reduce its extent.

#### ACTION

#### WHEN 2022-2027

Support First Nations people and the community to take action to manage invasive grasses to reduce their extent, through programs including Indigenous Protected Areas.

#### ACTION

#### WHEN 2022-2027

**WHEN 2027** 

Work with Western Australia to eradicate Gamba Grass from the known location/s within the state.

#### **ACTION**

Eradicate Gamba Grass from Kakadu National Park.

#### Resources

**National Priority List of Exotic Environmental Pests, Weeds and Diseases:** agriculture.gov.au/biosecurity-trade/policy/environmental/priority-list

Approved threat abatement planning documents: www.dcceew.gov.au/environment/biodiversity/threatened/threat-abatementplans/approved

Best practice manual for Gamba Grass (in development)





**Target 11** Introduction and establishment of new exotic environmental pests, weeds and diseases is reduced

#### Why is this important?

Invasive predators, plants and pathogens that are already established in Australia extract a heavy toll on our wildlife and have been the cause of many native species being listed as threatened. Looking ahead, reducing the risk of new exotic, invasive species potentially entering Australia will help prevent future losses of native wildlife. We need to find out more about the 168 priority exotic pests, weeds and diseases known to pose significant environmental risk and their potential impact on Australia's threatened species and ecological communities.

This builds on work to assess risks to threatened species posed by invasive animals, plants and pathogens identified by the National Priority List of Exotic Environmental Pests, Weeds and Disease Implementation Plan. It complements the work of the Chief Environmental Biosecurity Officer and linking efforts between state and territory government and other environment conservation managers.

#### What will we do?

#### **ACTION**

ACTION

Establish a 2022 baseline for annual introductions and establishment of new exotic environmental pests, weeds and diseases.

#### WHEN 2022-2027

**WHEN 2022** 

In partnership with state and territory governments, industry, and the community, prioritise activities that will reduce introduction and establishment of new exotic environmental pests, weeds and diseases.

#### **Resources**

National Priority List of Exotic Environmental Pests, Weeds and Diseases: agriculture.gov.au/biosecurity-trade/policy/environmental/priority-list



# **Insurance targets**

### Target 12

Five new populations of appropriate species are added across the national safe haven network to improve representation of invasive predatorsusceptible threatened species

### **Target 13**

At least 80 per cent of nationally listed threatened plant species are secured in insurance collections

### Target 14

All nationally listed threatened plant species affected by Myrtle Rust are secured in insurance collections and populations

#### Why is this important?

Safe havens are mainland exclosures or islands which act as arks of safety for our precious wildlife. They provide the long-term protection and resources needed to recover and increase species populations, through the permanent removal and exclusion of invasive predators. Safe havens were a key component of the first Threatened Species Strategy and we want to build upon this work to protect more species in more places in a strategic way. Good management of safe havens includes ensuring species are in multiple locations with good genetic diversity in the individual animals.

On the east coast of Australia, the exotic Myrtle Rust fungus is causing death and disease in many species of Australian trees, including eucalypts, tea trees and bottle brushes. It is an airborne fungus that targets new leaf growth and is very difficult to contain once it takes hold.

Myrtle Rust and catastrophic natural disasters such as severe bushfires or floods threatens the capability of already imperilled plant species to continue to persist in the wild. Securing plant species in insurance collections and populations provides a safeguard against extinction in the wild, as well as a source for translocations back into the wild after severe threats have passed.

These insurance targets build on progress under the Threatened Species Strategy 2015-2020. At its conclusion, this strategy reported that 10 safe havens were established protecting 9 threatened mammal species; more than 67 per cent of Australia's listed threatened species were stored in seed banks; and there was increased understanding of many threatened species populations through targeted survey and monitoring.



#### What will we do?

#### Predator-susceptible wildlife

#### **ACTION**

#### WHEN 2023

Undertake a stocktake of threatened species susceptible to invasive predators that are not adequately represented in the national safe havens network. The 2020 baseline list prepared for the safe havens grants opportunity will be used as reference, along with other research, and appropriate actions required to improve species representation will be identified. The stocktake will include genetic health analysis to ensure sufficient genetic diversity can be supported in potential safe haven populations.

#### ACTION

#### **WHEN 2023**

Convene a national 'Safe Haven Network' working group to build collaboration, coordination and focus effort on improving species representativeness in Australia's safe havens.

#### ACTION

#### WHEN 2022-2027

Strategically enhance or grow the safe havens network by undertaking targeted translocations to improve genetic diversity and address underrepresentation of predator-susceptible species.

#### Nationally threatened plants

#### ACTION

#### **WHEN 2023**

Establish a national inventory of living collections (*ex situ*) of EPBC Act listed plants, including records of availability of material for research, recovery and restoration to ensure we focus effort on threatened plant species that are not currently represented in insurance collections.

#### ACTION

#### WHEN 2022-2027

Support research and actions that will increase the number of EPBC Act listed plant species included in insurance collections, and ensure that at least 30 per cent of these species will be available to support on-ground restoration activities.

#### **Myrtle Rust**

#### ACTION

Undertake a stocktake of nationally listed Myrtle Rust-affected Myrtaceae species held as specimens in seed/germplasm banks/botanical gardens, and their availability for research, recovery and restoration.

#### ACTION

**WHEN 2023** 

**WHEN 2023** 

Commence work with relevant groups to include missing specimens held in seed/germplasm banks/botanical gardens.

#### ACTION

WHEN 2022-2027

Commence *ex situ* conservation actions, based on relevant conservation plans, for all nationally listed Myrtle Rust-affected species.

#### ACTION

#### WHEN 2022-2027

Support a national coordinated approach to addressing the risks posed by Myrtle Rust, including through community action to prevent spread and raise awareness.

#### **Resources**

#### Island safe havens

dcceew.gov.au/environment/biodiversity/threatened/publications/factsheet-island-safe-havens

#### Providing safe havens and bringing species back

nespthreatenedspecies.edu.au/news-and-media/latest-newsproviding-safe-havens-and-bringing-species-back

# **First Nations targets**

### **Target 15**

First Nations' Knowledges are integrated in conservation assessments, processes and planning for threatened species and ecological communities

### Target 16

First Nations-led recovery activities for threatened species and ecological communities are increased

#### Why is this important?

For more than 65,000 years Aboriginal and Torres Strait Islander people lived in harmony with the Australian environment. Over these many centuries, First Nations communities developed intricate, detailed and practical knowledge systems to care for land, seas and the environment, through intergenerational transfer of knowledge.

Environmental stewardship is integral to the identity of First Nations people. Nearly 60 per cent of Australia's threatened species occur on land owned or managed by Aboriginal and Torres Strait Islanders, and with more than 77 million hectares (43 per cent) of the National Reserve System currently under management through Indigenous Protected Areas. Working in partnership with Indigenous communities and enabling First Nations Knowledges to guide recovery actions is crucial to the recovery of many threatened species and ecological communities. Environmental outcomes are improved through working in partnership with First Nations people. Interruption of First Nations biocultural land management practices by European colonisation has had negative consequences for Australian species' habitats and ecology, contributing to many species becoming threatened. An example is changing fire management practices, where re-instigation of First Nations' fire management practices after decades of interruption has led to reduced impact of wildfire and reduced loss of species in areas including the wet tropics of Queensland and the Kimberley in Western Australia.





#### What will we do?

#### **ACTION**

#### WHEN 2022

Incorporate First Nations ecological knowledge of priority species and places, as appropriate, into baseline assessments and development of indicators under Targets 2 and 5.

#### **ACTION**

#### WHEN 2022-2027

Incorporate First Nations ecological knowledge and engage First Nations land and sea managers in conservation activities and planning documents relating to threatened species and ecological communities.

#### ACTION

#### WHEN 2023

Undertake a stocktake of First Nations-led recovery activities supporting threatened species and ecological communities funded by the Australian Government.

#### ACTION

#### WHEN 2022-2027

Design biodiversity conservation and natural resource management programs to actively facilitate First Nations-led projects and partnerships with First Nations people.

#### Resources

#### Our Knowledge, Our Way guidelines

csiro.au/en/research/indigenous-science/indigenous-knowledge/ our-knowledge- our-way

# **Planning targets**

### Target 17

Emergency response management and planning for critical biodiversity assets improves across jurisdictions

#### Why is this important?

Catastrophic events can push species dangerously close to extinction. Being prepared, such as through having systems in place to enable positive and strategic interventions to protect environmental assets, can limit or reduce the risk of extinctions.

Emergency events, such as bushfires and disease outbreaks, can significantly impact Australia's threatened species. We want to be better prepared going forward by reflecting upon and learning from the 2019–2020 Black Summer bushfires, including through better integration of critical biodiversity assets in emergency planning and response. This requires accessible data, including on the location of important environmental sites, the distribution of species and ecological communities and priorities to guide response efforts. Action to address the recommendations from the Royal Commission into National Natural Disaster Arrangements and recommendations from experts, including the former Wildlife and Threatened Species Bushfire Recovery Expert Panel, are foundational for improving biodiversity management in the context of large-scale emergencies. Actions under this target will be aligned with Australian Government policy led by the National Emergency Management Agency, including the National Disaster Risk Reduction Framework and the Second National Action Plan for disaster risk reduction.







#### What will we do?

#### **ACTION**

Capture the actions taken and the lessons learnt from the 2019-20 bushfire response to develop a preparedness framework that can support responses to future environmental emergencies across all jurisdictions.

#### **ACTION**

#### WHEN 2023

**WHEN 2023** 

In collaboration with states and territories, develop a multi-jurisdictional inventory of critical biodiversity assets to include in emergency response management and planning systems.

#### **ACTION**

#### WHEN 2024

Support Commonwealth, state and territory government efforts to identify and incorporate critical biodiversity assets into emergency response management and planning systems to guide future responses to bushfires and other extreme events.

#### **ACTION**

#### **WHEN 2026**

Determine the risk of different extreme events, including bushfires, impacting priority species and priority places, and build this into Australian Government decision-making and response tools.

#### **Resources**

Bushfire recovery for wildlife and their habitat: dcceew.gov.au/environment/biodiversity/bushfire-recovery

# **Planning targets**

### **Target 18**

National conservation planning for threatened species and ecological communities is contemporary, effective and fit-for-purpose

#### Why is this important?

Recovery of threatened species and ecological communities depends on effective conservation approaches. Conservation planning must be evidence-based, understood and directed towards halting the threats that are pushing our plants and animals to extinction.

The Threatened Species Scientific Committee recommends that a combination of conservation planning approaches is critical to halt declines in our plants and animals. These approaches include species-specific conservation measures, along with regional or multi-species recovery plans that focus on landscape-scale solutions and reverse compounding local threats, this aligns with the 2020 EPBC Act review recommendations.

Contemporary conservation planning requires a combination of individual strategies for some species coupled with coordinated, integrated action across regions to mitigate threatening processes and provide support for multiple plant and wildlife species. As landscape-scale actions are undertaken, the effectiveness of recovery actions must be understood and monitored to allow actions to be refined with new information and changing pressures.

#### What will we do?

#### ACTION

Develop and publish best practice governance for effective coordination and reporting of recovery team actions and implementation of threat abatement actions.

#### ACTION

#### WHEN 2022-2027

**WHEN 2024** 

Support the ongoing development of 'fit-for-purpose' conservation planning, including:

- >> developing conservation plans for single, multiple or regionally clustered groups of threatened species and ecological communities that include information about important habitat, climate susceptibility where appropriate and key actions that will drive recovery.
- » threat abatement planning documents and regional (place-based) plans to deliver conservation outcomes for multiple threatened species and ecological communities and manage multiple threats to prevent other species in that region from becoming threatened in the first place.
- » ensure conservation and threat abatement planning documents that inform management of priority species and places are strengthened in line the Australian Government's environmental law reform agenda.

#### ACTION

#### WHEN 2022-2027

Support recovery coordinators for priority species/species clusters that have complex recovery needs and multiple partners supporting recovery efforts.



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#### ACTION

#### WHEN 2022-2027

Support and promote best practice guidelines for key recovery actions (including the use of standardised national monitoring protocols and data management standards, wildlife health guidance and protocols for translocations, *ex situ* conservation and seed collection).

#### ACTION

#### WHEN 2022-2027

Strengthen integration of conservation planning with other planning processes, and across levels of government and community initiatives, to maximise conservation outcomes.

#### Resources

Best practice manual for effective coordination and reporting of recovery team actions and Threat Abatement Plan implementation (in development)

EPBC Act reform: dcceew.gov.au/environment/epbc/epbc-act-reform

Species Profiles and Threats database: environment.gov.au/cgi-bin/sprat/public/sprat.pl

Monitoring, Evaluation, Reporting and Improvement Tool (MERIT) online reporting tool: fieldcapture.ala.org.au/home/about

# **Research targets**

### **Target 19**

At least 5 new tools to are developed to mitigate the impact of broad-scale threats on threatened species

### Target 20

Monitoring standards for all priority species are published and monitoring tools and protocols are created for at least 50 per cent of priority species

#### Why is this important?

Many of our threatened species and ecological communities are poorly understood with a continuing need to improve our knowledge base through long-term monitoring and research. By modernising technologies and systems, national-level data and information can be more efficiently consolidated into a leading source of biodiversity information that is readily accessible to governments, conservation managers, industry and the community.

Better quality information that is easily accessible can underpin more informed decision making. With real-time access to the best available information, and with the right tools, we can target actions most likely to succeed in order to recover priority species and restore priority places.

Monitoring protocols will be used to capture consistent baseline and ongoing time-series data for all priority species and places compatible with the national data standards. The protocols will be available and used for threatened species projects funded through Australian Government investments and progressively included in updates to conservation planning documents.

Data captured through monitoring will be compatible with national environmental standards for data and available on the national environmental systems and biodiversity data repositories managed by the Australian Government.

#### What will we do?

#### ACTION

Support a national program of research to develop new tools to support threatened species recovery and threat management.

#### ACTION

#### WHEN 2023

WHEN 2022-2027

Identify best practice monitoring protocols for all priority species.

#### **ACTION**

#### **WHEN 2024**

Develop and publish standardised monitoring tools and protocols for at least 50 per cent of priority species.

#### ACTION

#### WHEN 2022-2027

Promote First Nations-led research and two-way knowledge transfer to benefit priority species and places.

#### Resources

The national program of research and national monitoring protocols (in development)

Atlas of Living Australia – Open access to Australia's biodiversity data: ala.org.au

Australian Citizen Science Association - Project Finder: citizenscience.org.au/ala-project-finder





# **Coordinating national research to support threatened species**

There are a range of scientific and First Nations-led institutions, agencies and groups across Australia conducting important research and data collection to support threatened species recovery and threat management.

Through supporting and coordinating actions in this Action Plan, the Australian Government is striving to:

- » Improve our understanding about priority species, priority places and threats, in particular:
  - species resilience, response and susceptibility to extreme events (e.g., bushfires) and a changing climate
  - how species and threats are likely to move or change in response to climate change
  - what place-based and *ex situ* management actions are needed, including for example future seed banking, germplasm collection and storage, gene banking, captive breeding, genetic management, *ex situ* conservation and translocation or reintroduction.
- » Support development of new and improved tools and techniques to better monitor, protect and recover priority species and improve condition at priority places.
- » Support development of new and improved tools and techniques to better detect, track and suppress one or more invasive grasses, feral predators and Myrtle Rust.
- » Streamline and improve access to search and share national threatened species data and spatial information, research and published information, including digitising conservation plans and threat abatement documents.

# **Engagement targets**

### **Target 21**

At least half the number of projects that benefit priority species and priority places receive private investment or support from partners

#### Why is this important?

We all have a role to play in conservation and it's only by working together that we can use collective expertise and resources to best effect. Strong partnerships between all levels of government, conservation land and sea managers, business, researchers, the community and with First Nations peoples are essential to effectively coordinate action and link recovery efforts. Support for threatened species comes in many forms, including funding, sharing of expertise and equipment, and provision of people to undertake recovery actions.

Previous reporting on the 2015 Threatened Species Strategy demonstrated the extensive contribution of all partners to improving the trajectory of priority species and tackling the impacts of feral cats. By setting more explicit targets, this Action Plan helps drive increased collaboration and partnerships.

This target recognises the current collaboration and contributions being delivered by existing partners who are leading threatened species conservation initiatives, both in Australia and internationally. It also complements emerging Australian Government initiatives on improving private sector investment in natural capital and increasing collaboration with Australia's agriculture sector through development of biodiversity markets.

#### What will we do?

#### ACTION

WHEN 2022-2027

Work with the financial and agricultural sectors to increase private financing of landscape conservation and restoration.

#### ACTION

#### WHEN 2022-2027

Support innovative market mechanisms for increasing biodiversity and conservation of remnant native vegetation in productive landscapes.

#### **ACTION**

#### WHEN 2022-2027

Promote initiatives to direct private and philanthropic investment in threatened species recovery projects and support collaborative partnerships.

#### ACTION

#### WHEN 2022-2027

Support long-term stewardship of high value habitat for threatened species and ecological communities by land and water managers contributing to landscape-scale conservation priorities.

#### ACTION

#### WHEN 2022-2027

Encourage and provide extension advice and support to land and water managers who are interested in long term stewardship of their lands.

#### Resources

#### Agriculture Biodiversity Stewardship:

agriculture.gov.au/agriculture-land/farm-food-drought/natural-resources/landcare/sustaining-future-australian-farming

#### Natural capital - unlocking private sector investment:

dcceew.gov.au/climate-change/policy/adaptation/publications/natural-capital



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# **Engagement targets**

#### **Target 22** Community groups lead or participate in recovery activities for all accessible priority species and places, including through citizen science

#### Why is this important?

Successful conservation relies on collaboration. The knowledge, support and engagement of dedicated individuals, volunteers, First Nations people, community groups and the business sector are integral for the successful conservation of Australia's threatened species and ecosystems.

While there is much work to do to ensure our threatened species and ecosystems thrive in the future, by working collectively we can build on shared aspirations and bring together our unique values and strengths to solve complex environmental challenges.

Community connection to the local environment, participation and capacity building underpin all action areas and associated targets.



#### What will we do?

ACTION	WHEN 2022-2027
Require community involvement in Austreenvironment projects where appropriate	ralian Government e.
ACTION	WHEN 2022-2027

Work with the community to improve understanding of environmental threats and promote behavioural change to benefit threatened species through social media channels and engagement programs.

#### ACTION

#### WHEN 2022-2027

Support citizen science partners and initiatives to increase community engagement in threatened species monitoring and management.

#### ACTION

#### WHEN 2022-2027

Support schools, community groups, businesses and individuals to champion threatened species and undertake activities for local threatened plants and animals.

#### ACTION

#### WHEN 2022-2027

Share success stories online of the community members who champion threatened species or play a role in the stewardship of threatened species and ecological communities.

#### **Resources**

#### Stay connected:

Follow the Threatened Species Commissioner on Facebook, Instagram or twitter:

facebook.com/TSCommissioner, instagram.com/tscommissioner/, @ TSCommissioner - Twitter

Visit the Australian Citizen Science Association: citizenscience.org.au



# TRACKING PROGRESS AND REPORTING

A 5-year report on the Action Plan's achievements against its objectives and targets will be completed in 2027 with a progress report in 2025.

A review will also be undertaken in 2027 to identify any improvements needed in developing the next 5-year targets to meet the Action Plan's 10-year objectives.

The Threatened Species Commissioner will work with existing and new partners to implement the Action Plan, providing guidance to support the design and delivery of projects aligned to the identified actions. The Threatened Species Commissioner will also work with land managers seeking to build partnerships for cross-tenure actions in priority places. By the end of 2022, the Threatened Species Commissioner will publish profiles on each priority species, with profiles on priority places published by mid-2023. These profiles will include a summary of 2022 baseline information, the highest priority actions needed for each species and place, and key indicators for measuring success to assess whether species and places are on track for improving trajectory and condition respectively by 2032.

Priority species and places profiles, progress reports, and all related assessments, plans and reports supporting implementation of this Action Plan will be published on the department's website.

> The Threatened Species Commissioner will work with existing and new partners to implement the Action Plan.



### Definitions

#### Action

Activities listed under the 'What will we do?' section of each action area, to be undertaken during the period of the Action Plan.

#### Adequate representativeness

Six or more genetically and demographically viable populations of species protected within the national safe haven network.

#### **Climate susceptibility**

A measure of a species' or place's susceptibility to climate change. Some species are at more risk from climate change than others due to ecological or physiological traits. The IUCN has a developed a framework for determining whether a species is 'climate change-susceptible': www.iucn.org/ downloads/climate\_change\_and\_species.pdf.

#### **Condition (of places)**

Key characteristics and functions of an ecosystem at a point in time, describing the state of the environment's physical features, species composition, community structure, ecosystem function, presence/absence of threats and external exchanges/influences. For priority places, the Action Plan will focus on condition as it relates to the needs of threatened species found within.

#### **Conservation planning documents**

Conservation plans provide guidance on the management and research actions to support the recovery of threatened species and ecological communities. Currently the types of planning documents under the EPBC Act include conservation advices, recovery plans and threat abatement plans. These documents can also extend in scope to include multi-entity conservation plans and bioregional plans. The Government's response to the 2020 Independent Review of the EPBC Act is considering future approaches.

#### **Critical biodiversity assets**

Biodiversity assets identified by jurisdictions, environment management agencies or environmental law as important to preserve during emergencies or natural disasters e.g., species, ecological communities, habitat features.

#### **Ecological function**

The collective term for the roles and processes that arise from interactions among living and non-living components of ecosystems. Examples include nutrient cycling and sequestration (through biomass accumulation, food production, herbivory, predation and decomposition), water filtration and cycling, soil formation, succession, disturbance regimes (fire, flooding and drying), water filtration and storage, provision of habitat, predation, dispersal, pollination, reproduction, disturbance and resilience.

#### **EPBC Act**

The Environment Protection and Biodiversity Conservation Act 1999 – also known as national environment law.

#### Important habitat

Habitat described in conservation planning documents or research as being important to the survival of EPBC listed species or threatened ecological communities.

#### Indicators of success - improved condition

A semi-quantitative rating system based on biotic and abiotic characteristics that provide comparative assessment of how well the attributes of an ecosystem are recovering after treatment, e.g. species composition, habitat integrity (structure, ecosystem function), presence or absence of threats, external influences, future prospects (Society for Ecological Restoration - National Restoration Standards 5-star recovery).

#### Insurance collections and populations

Relating to *ex situ* conservation of plant and animal species, including captive populations, populations managed in safe havens, seed banking, tissue culture, cryopreservation and living plant collections in botanical gardens and plant populations *in situ*.

#### Myrtle Rust impacted

Myrtle Rust is a disease caused by the exotic fungus *Austropuccinia psidii* (formerly *Puccinia psidii*, initially identified as *Uredo rangelii*). There is only one strain of rust in Australia. Myrtle rust threatens trees and shrubs in the Myrtaceae family of plants which includes Australian natives like bottle brush (*Callistemon* spp.), tea tree (*Melaleuca* spp.) and eucalypts (*Eucalyptus* spp., *Angophora* spp., and *Corymbia* spp.). The disease can cause deformed leaves, heavy defoliation of branches, reduced fertility, dieback, stunted growth, and plant death.

#### **Objectives**

Overarching goals for this Action Plan, to be achieved in 2027.

#### **Predator-susceptible species**

Threatened species that are at risk of extinction due to predators such as feral cats and foxes. A list of predatorsusceptible mammals was attached to the 2021 safe havens grants opportunity – see resources for links.

#### Recovery

The process of an ecosystem regaining its composition, structure and function relative to the levels identified for the reference ecosystem. In restoration, recovery is assisted by restoration activity—and recovery can be described as partial or full.

#### Resilience

The degree, manner and pace of recovery of species after a disturbance or stress, or the potential or capacity for such recovery. This property is developed by natural selection under conditions of exposure of the species to disturbance over evolutionary time scales—and enables a species or population to persist despite disturbance.

#### Restoration

The process of returning of a degraded habitat to its original species composition, structure and function.

#### Target

Specific achievements to be completed within articulated timeframes, to support achievement of the Action Plan objectives.

#### Trajectory

A pathway of recovery over time, defined and monitored using sequential measurements pre-determined baseline parameters/indicators, e.g., species population, management actions (species, habitat, threats and research) and future prospects.

### Links

#### **Agriculture Biodiversity Stewardship Package**

agriculture.gov.au/agriculture-land/farm-food-drought/ natural-resources/landcare/sustaining-future-australianfarming

Atlas of Living Australia ala.org.au

Australian Bureau of Agricultural and Resource Economics and Sciences agriculture.gov.au/abares

Australian Biological Resources Study dcceew.gov.au/science-research/abrs

Australia's international role in conserving biodiversity dcceew.gov.au/environment/biodiversity/international

#### Australia's Nature Hub

australiasnaturehub.gov.au

Australia's Strategy for Nature 2019-2030

australiasnaturehub.gov.au/national-strategy

#### Australian Weeds Strategy and the Australian Pest Animal Strategy

agriculture.gov.au/biosecurity-trade/pests-diseases-weeds/ pest-animals-and-weeds

#### **Chief Environmental Biosecurity Officer**

agriculture.gov.au/biosecurity-trade/policy/environmental/ cebo

**Commonwealth Biosecurity 2030** agriculture.gov.au/ biosecurity-trade/policy/commonwealthbiosecurity-2030

Commonwealth Environmental Water Holder dcceew.gov.au/water/cewo

**Commonwealth Marine Parks** parksaustralia.gov.au/marine

#### Emissions Reduction Fund cleanenergyregulator.gov.au/ERF

#### **Environment and Invasives Committee**

agriculture.gov.au/biosecurity-trade/pests-diseases-weeds/ pest-animals-and-weeds/eic

#### **Environmental law reform**

dcceew.gov.au/environment/epbc/about/environmental-law-reform

#### Indigenous Ranger programs

niaa.gov.au/indigenous-affairs/environment/indigenous-ranger-program

#### **Indigenous Protected Areas**

dcceew.gov.au/agriculture-land/land/indigenous-protected-areas

National Agreement on Closing the Gap closingthegap.gov.au/national-agreement

#### Natural capital: unlocking private sector investment

dcceew.gov.au/science-research/climate-change/adaptation/ publications/natural-capital

National Collaborative Research Infrastructure Strategy dese.gov.au/ncris

### National Environmental Science Program dcceew.gov.au/science-research/nesp

National Indigenous Australians Agency niaa.gov.au

#### National Priority List of Exotic Environmental Pests, Weeds and Diseases

agriculture.gov.au/biosecurity-trade/policy/environmental/ priority-list

National Recovery and Resilience Agency recovery.gov.au

#### National Reserve System dcceew.gov.au/agriculture-land/land/nrs

National Standards for Ecological Restoration

seraustralasia.com/pages/standards.html

Parks Australia parksaustralia.gov.au

Royal Commission into National Natural Disaster Arrangements naturaldisaster.royalcommission.gov.au

Safe havens grant opportunity – list of predator susceptible mammals

dcceew.gov.au/environment/biodiversity/threatened/ publications/strategy-home

#### **Species of National Environmental Significance**

dcceew.gov.au/environment/environmental-information-data/ databases-applications/snes

**Species Profile and Threat Database** 

environment.gov.au/cgi-bin/sprat/public/sprat.pl

### Threat Abatement Plans: feral cats, foxes, invasive grasses and others

dcceew.gov.au/environment/biodiversity/threatened/threatabatement-plans/approved

#### **Threatened Species Commissioner**

dcceew.gov.au/environment/biodiversity/threatened/ commissioner

#### **Threatened Species Strategy**

dcceew.gov.au/environment/biodiversity/threatened/ publications/strategy-home

#### **Threatened Species Scientific Committee**

dcceew.gov.au/environment/biodiversity/threatened/tssc

# **APPENDIX 1: PRIORITY SPECIES**

# Focused efforts will contribute to the Action Plan's high-level objective:

The risk of extinction is reduced for all priority species

#### The priority species list includes plants and animals found across Australia in a range of environments, from the arid deserts to rainforests, forests to grasslands, and inland waters to the sea.

All taxonomic groups listed under the EPBC Act are included. Recovery actions for many of the priority species will also benefit other threatened species that share their habitat.

#### **Selecting priority species**

The 110 priority species were selected using a multi-criteria decision analysis process, using scores against the Action Plan's 6 prioritisation principles (Appendix 3). Over 1900 species listed under the EPBC Act as either Critically Endangered, Endangered or Vulnerable were reviewed in this prioritisation process. Species were scored using national-scale data sets by independent ecologists and the Australian community was also invited to have a say on species important to them.

More information on each priority species will be published on the department's website, including a description, photo, and key actions required for recovery.



#### 22 Birds

Australasian Bittern Botaurus poiciloptilus

Black-eared Miner Manorina melanotis

Carnaby's Cockatoo Zanda latirostris

Christmas Island Goshawk Accipiter hiogaster natalis

Eastern Curlew *Numenius madagascariensis* 

Golden-shouldered Parrot, Alwal *Psephotus chrysopterygius* 

Hooded Plover (eastern) Thinornis cucullatus cucullatus

King Island Brown Thornbill *Acanthiza pusilla magnirostris* 

King Island Scrubtit Acanthornis magna greeniana

Malleefowl *Leipoa ocellata* 

Night Parrot Pezoporus occidentalis Noisy Scrub-bird Atrichornis clamosus



Norfolk Island Green Parrot *Cyanoramphus cookii* 

Orange-bellied Parrot Neophema chrysogaster

Plains-wanderer *Pedionomus torquatus* 

Princess Parrot Polytelis alexandrae

Red Goshawk Erythrotriorchis radiatus

Red-tailed Black Cockatoo (SE) Calyptorhynchus banksii graptogyne

Regent Honeyeater Anthochaera phrygia

Swift Parrot Lathamus discolor

Western Ground Parrot, Kyloring *Pezoporus flaviventris* 

White-throated Grasswren, Yirlinkirrkirr *Amytornis woodwardi* 





#### **21 Mammals**

Australian Sea-lion Neophoca cinerea

Brush-tailed Rock-wallaby *Petrogale penicillata* 

Central Rock-rat, Antina Zyzomys pedunculatus

Chuditch, Western Quoll Dasyurus geoffroii

Eastern Quoll, Luaner Dasyurus viverrinus

Gilbert's Potoroo, Ngilkat Potorous gilbertii

Greater Bilby Macrotis lagotis

Kangaroo Island Echidna Tachyglossus aculeatus multiaculeatus

Koala (Qld, NSW, ACT) Phascolarctos cinereus

Leadbeater's Possum *Gymnobelideus leadbeateri* 

Mountain Pygmy-possum Burramys parvus

New Holland Mouse, Pookila *Pseudomys novaehollandiae* 



#### 9 Fish

Northern Brushtail Possum

Northern Hairy-nosed Wombat,

Northern Hopping-mouse,

Trichosurus vulpecula

Lasiorhinus krefftii

Woorrentinta

Notomys aquilo

Northern Quoll

Numbat

Quokka

Dasyurus hallucatus

*Myrmecobius fasciatus* 

Southern Bent-wing Bat

Spectacled Flying-fox

Pteropus conspicillatus

Western Ringtail Possum

Pseudocheirus occidentalis

Miniopterus orianae bassanii

Setonix brachyurus

arnhemensis

Yaminon

Freshwater Sawfish Pristis pristis

Grey Nurse Shark (eastern) Carcharias taurus

Maugean Skate Zearaja maugeana

Murray Hardyhead Craterocephalus fluviatilis

Red Handfish *Thymichthys politus* 

Redfin Blue-eye Scaturiginichthys vermeilipinnis

Stocky Galaxias Galaxias tantangara

Swan Galaxias *Galaxias fontanus* 

White's Seahorse *Hippocampus whitei* 



#### **6 Frogs**

Growling Grass Frog, Southern Bell Frog *Litoria raniformis* 

Kroombit Tinker Frog Taudactylus pleione

Mountain Frog Philoria kundagungan

Mountain-top Nursery-frog *Cophixalus monticola* 

Southern Corroboree Frog *Pseudophryne corroboree* 

White-bellied Frog Anstisia alba









#### **11 Invertebrates**

Ammonite Snail Ammoniropa vigens

Cauliflower Soft Coral Dendronephthya australis

Eltham Copper Butterfly Paralucia pyrodiscus lucida

Giant Gippsland Earthworm *Megascolides australis* 

Glenelg Freshwater Mussel Hyridella glenelgensis

Kangaroo Island Assassin Spider Zephyrarchaea austini

Lord Howe Island Phasmid *Dryococelus australis* 

Margaret River Burrowing Crayfish Engaewa pseudoreducta

Mount Lidgbird Charopid Land Snail

Pseudocharopa ledgbirdi

Pink Underwing Moth Phyllodes imperialis smithersi

Tasmanian Giant Freshwater Crayfish *Astacopsis gouldi* 



#### **11 Reptiles**

Arnhem Land Gorges Skink Bellatorias obiri

Bellinger River Snapping Turtle Wollumbinia georgesi

Canberra Grassland Earless Dragon *Tympanocryptis lineata* 

Collared Delma, Adorned Delma

*Delma torquata* Great Desert Skink, Tjakura,

Warrarna, Mulyamiji Liopholis kintorei

Green Turtle *Chelonia mydas* 

Olive Ridley Turtle Lepidochelys olivacea

Pygmy Blue-tongue Lizard Tiliqua adelaidensis

Short-nosed Sea Snake *Aipysurus apraefrontalis* 

Western Swamp Tortoise Pseudemydura umbrina

Yinnietharra Rock-dragon Ctenophorus yinnietharra



**30 Plants** 

Skink Adamson's Blown-grass Lachnagrostis adamsonii

> Angle-stemmed Myrtle Gossia gonoclada

Arckaringa Daisy Olearia arckaringensis

Bolivia Hill Rice-flower Pimelea venosa

Border Ranges Lined Fern Antrophyum austroqueenslandicum

, Bulberin Nut

Macadamia jansenii

Carrington Falls Pomaderris Pomaderris walshii

Davies' Waxflower Phebalium daviesii

Foote's Grevillea Grevillea calliantha

Forked Spyridium Spyridium furculentum

Giant Andersonia Andersonia axilliflora Gorge Rice-flower *Pimelea cremnophila* 

Graveside Leek-orchid Prasophyllum taphanyx

Imlay Mallee *Eucalyptus imlayensis* 

King Blue-grass Dichanthium queenslandicum

Lax Leek Orchid Prasophyllum laxum

Little Mountain Palm *Lepidorrhachis mooreana* 

MacDonnell Ranges Cycad Macrozamia macdonnellii

Narrow-leaf Eremophila Eremophila subangustifolia

Native Guava Rhodomyrtus psidioides

Scaly-butt Mallee *Eucalyptus leprophloia* 

Small-flowered Snottygobble Persoonia micranthera

Smooth Davidson's Plum Davidsonia johnsonii Stiff Groundsel Senecio behrianus

Stirling Range Dryandra Banksia montana

Tangled Wattle *Acacia volubilis* 

Waddy, Waddi, Waddy-wood, Birdsville Wattle *Acacia peuce* 

Wollemi Pine Wollemia nobilis

Wongan Eriostemon Philotheca wonganensis

Woods Well Spyridium Spyridium fontis-woodii

# **APPENDIX 2: PRIORITY PLACES**

Twenty priority places will be the focus for targeted actions over 5 years from 2022 to 2027, contributing to the Action Plan's objective:

The condition is improved for all priority places

#### Why priority places?

All threatened species share habitat with other species. Priority places under the Threatened Species Action Plan 2022-2032 will provide a place-based focus for research, support and recovery action for threatened species and threatened ecological communities that are present within identified places.

The Action Plan's objective is to improve the condition of priority places by 2032, benefiting both threatened and non-threatened species and ecological communities.



#### How are priority places selected?

Twenty priority places have been selected using the Action Plan's prioritisation principles (Appendix 3). Nearly 2000 potential places were considered, including all biogeographic (IBRA) subregions, all Key Biodiversity Areas, all Ramsar and Nationally Significant wetlands, as well as places identified by the department and threatened species managers from state and territory governments.

These sites were initially scored by density of threatened species and ecological communities likely present, and the proportion of each site under the management of First Nations people. High scoring places were further refined by considering spread across different jurisdictions and biomes.

The final list includes a range of places across Australia, extending into our marine environment. Most places have high densities of threatened species and threatened ecological communities, others have significant cultural values for the First Nations people that manage them, and others are places where targeted action on particular threats will benefit multiple threatened species.

#### What will happen in priority places?

During early 2023, a profile for each priority place will be developed that describes key natural values for its threatened species and threatened ecological communities. Place profiles will identify important areas for support and recovery that the Action Plan will focus on, including goals to meet to improve the place's condition and the actions needed to achieve these. Actions will be specific for each place and may include elimination of particular invasive pests or weeds, implementation of First Nations ecological management practices, habitat restoration and/or augmentation and research to inform actions.

Support for these actions will be prioritised through relevant Australian Government policies and programs. State and territory governments, First Nations peoples, natural resource managers, land and sea managers and community groups will be encouraged to partner with us in working towards these goals. Our combined achievements will be measured in 2027 to determine if the Action Plan's objectives are being met.

#### What does it mean for landholders and managers?

Land and sea managers at a priority place will be invited to participate in improving the condition of the place for threatened species and threatened ecological communities. Identification as a priority place is non-statutory – it does not involve a change in regulatory requirements under the EPBC Act at that location. Rather, designation as a priority place signals a focus in effort by the Australian Government in collaboration with willing partners, through on-ground management and complementary research to improve the condition of that place. As with any voluntary arrangement, the nature of the partnerships and the extent of engagement of land managers, is expected to vary within and between places. For this reason, particularly for the mainland places, precise boundaries have not been defined. Conservation activities may occur across an entire place (for example feral cat control on Christmas Island) or may be undertaken in a patchwork reflective of biodiversity assets, land tenure and/or land manager engagement.

#### Which places?

The 20 priority places include six natural islands and 14 mainland places.

More information on each priority place will be published on the department's website, including a description, photos, and key actions required to improve condition for threatened species that are found within.

#### 6 priority islands

Bruny Island, Tasmania
Christmas Island, Indian Ocean
French Island, Victoria
Kangaroo Island, SA
Norfolk Island, Tasman Sea
Paine Island Queensland

#### 14 priority mainland places

Eastern forests of Far North Queensland Brigalow country, Queensland В C Greater Blue Mountains, NSW Australian Alps, NSW, Victoria and ACT South east coastal ranges, NSW and Victoria E F Southern Plains, including the Western Victorian volcanic plain and karst springs, SA and Victoria Midlands region of central Tasmania G H Giant Kelp Ecological Community, Tasmania Mallee Birds Ecological Community, South Australia, Victoria and NSW MacDonnell Ranges, Northern Territory Kakadu and West Arnhem, Northern Territory K Yampi Sound and surrounds, Western Australia  $\mathbf{n}$ Remnant wheatbelt woodlands, Western Australia Fitz-Stirlings, Western Australia N

**Priority places** 

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# **APPENDIX 3: PRIORITISATION PRINCIPLES**

Priority species and places have been selected in accordance with 6 prioritisation principles that help us identify where Australian Government investment in threatened species recovery can be strategically targeted to best meet the Action Plan's objectives.

The 6 principles were developed in consultation with stakeholders and the prioritisation work was undertaken by independent scientists, providing a transparent basis for the selection of species and places as priorities for coordinated, national attention.

### Six prioritisation principles

#### **Risk of extinction**

# Prioritising species and places under severe and imminent threat

- Threatened species at high risk of imminent extinction; or places that are critically important to threatened species where suitable habitat is at risk of a dramatic decline.
- » Threatened species or ecological communities that are highly restricted or limited in distribution and/or size, and where a foreseeable chance event could cause extinction.

#### Multiple benefits

# Prioritising species and places where recovery action will benefit other species

- Threatened species that share common threats or habitats with other threatened species, so that action to mitigate the threat or improve habitat would benefit multiple threatened species.
- » Places that contribute to the persistence of biodiversity (e.g. refugia under projected climate change impacts) and/or are important habitat for many species.
- Threatened species and places that provide demonstrated benefits to other species (e.g. a keystone species that has a functional role or a place that provides an ecosystem service).





#### Feasibility and effectiveness

### Prioritising species and places where action can make a difference and is cost-effective

- Threatened species and places where actions to mitigate threats or support recovery are well understood and can be practically implemented at ecologically meaningful scales (e.g. where the success of conservation actions has been effectively demonstrated through monitoring and evaluation).
- Threatened species and places where effective prior investment by the Australian Government can be built on and/or investment by other organisations and governments can be complemented.
- Threatened species and places where effective collaboration and coordination of conservation effort across organisations and governments will improve likelihood of recovery.

#### Importance to people

# Prioritising species and places of cultural significance

- Threatened species and places that hold special significance to communities, including Aboriginal and Torres Strait Islander peoples.
- Threatened species and places that are valued by the Australian community, with potential to build strong and continued support for conservation into the future.

#### Uniqueness

# Prioritising species and places that are unlike any other

- Threatened species that are taxonomically distinct – that is, species that have no close relatives.
- » Threatened species or places that are unique to Australia and not found anywhere else.

#### Representativeness

#### Achieving balance in selected species and places

- Include threatened species from a range of taxonomic groups, with a balance between charismatic and other species.
- Include threatened species and places from different parts of Australia, including land, freshwater and marine environments and from urban, regional and remote areas.
- » Include places from across a range of tenures, including public and private land, and with different levels of statutory protection.
- » Include a range of different places (e.g., climate refugia, island and mainland safe havens, sites for restoration).





Front Cover Great Desert Skink (Tjakura), Oliver Tester Orange-bellied Parrot, Graeme Chapman Stirling Range, Elliott Bell Norfolk Island coastline, Julie Quinn Growling Grass Frog, DCCEEW

Page ii Boab tree in the Kimberley, Julie Quinn

Page 1 Sand ripples at Croajingolong National Park, Kerry Cameron

Page 2 Greater Bilby in captivity, Queensland Department of Environment and Science

Page 4 White-throated Grasswren, Kelly Dixon

Page 5 Bushwalker northern NSW, Kerry Cameron

Page 6 Christmas Island Blue-tailed Skink, Parks Australia

**Page 7** Red Handfish, Tyson Bessell

Page 8 Australian Sea Lion, Michael Snedic Snow Gum in the Australian Alps, Elliott Bell

Page 9 Brush-tailed Rock-Wallaby, Hugh McGregor Kakadu Paperbark swamp and Magpie Geese, Alan Fox, DCCEEW Safehaven fence at Tidbinbilla Nature Reserve, ACT, Kerry Cameron

Page 10 Kosciusko National Park, Australian Alps, Anna-Lisa Hayes

Page 11 Cape Arid Western Ground Parrot Monitoring, Fiona Fraser

Page 12 Controlled burn of grasslands, Barton ACT, MomentsForZen

Page 13 Revegetation works at Somers Foreshore, John Baker

Australasian Bittern fitted with tracker, Matthew Herring Seedlings for habitat support at Australian National Botanic Gardens, Kerry Cameron Page 15 Eastern Curlew, Dan Weller

Page 16 Cauliflower Soft Coral, Marine Explorer

Page 17 Orange-bellied Parrot chicks, Dejan Stojanovic Davies Waxflower, Royal Tasmanian Botanic Gardens

Page 18 Stirling Ranges, Julie Quinn Lily Beach, Christmas Island, Jacinta Riley

Page 19 Olive Ridley Turtle hatchling, Roehan Rengadurai

Page 20 Conservation land management on farms, Kerry Cameron First Nations woman holding a Mulgara, Oliver Tester

Page 21 Rainforest creek in northern NSW, Kerry Cameron \_\_\_\_\_

Page 22 Malleefowl, Andrew Silcocks

Page 23 Feral Cat, Shuttershock Fox, Shuttershock

Page 24 Gamba Grass control, Rowena Eastick

Page 25 Red-Eared Slider Turtle, Jim the Photographer Gamba Grass control, Rowena Eastick

Page 26 Myrtle Rust on Lilly Pilly leaves, Geoff Pegg

Page 27 Safehaven fence at Tidbinbilla, ACT, Kerry Cameron

Page 28 Nyambaga Aboriginal Green Team managing weeds in Congarinni, DCCEEW Banksia seed opening post bushfire, Kerry Cameron

Page 29 Drone launch in Kakadu, Michael Douglas

Page 30 Bushfire in NSW, DCCEEW Kangaroo Island Dunnart habitat, Kangaroo Island, Ollie Tester

Page 31 Canberra Grassland Earless Dragon, Tidbinbilla Nature Reserve Page 32 Orange-bellied Parrot, Ron Knight

Page 33 Monitoring on Kangaroo Island, Kangaroo Island Land for Wildlife

Page 34 Feral herbivore impact surveys, Deakin university

Page 35 Chuditch (Western Quoll) release, Vulkathunha-Gammon Ranges, Ben Hyde

Page 36 Farmers, DCCEEW

Page 37 Coopernook Public School dragonfly excursion, MidCoast Council

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Page 39 Red-tailed Black-Cockatoo, Shuttershock

Page 42 Christmas Island Goshawk, Parks Australia

Page 43 White's Seahorse, John Turnbull

Page 44 Wollemi Pine foliage, Tim Waters

**Page 45** Norfolk Island, Julie Quinn

Page 47 Raine Island seascape view, Simon Banks Commonwealth of Australia (GBRMPA)

Page 48 Foote's Grevillea, Jean and Fred Hort

Page 49 Citizen science at a North Coast NSW 'Bioblitz', Gill Walker

Page 50 Grey Nurse Shark, Lindsay Devery

Back cover Mossman River Daintree, Eastern Forests of Far North Queensland, Colin Totterdell Kangaroo Island Echidna, Shutterstock Giant Andersonia, DCCEEW Leadbeaters Possum, Dan Harley Dew Rivulet, Bruny Island, Rob Blaker

