

BIODIVERSITY

A summary of Australia's Biodiversity Conservation Strategy 2010–2030



Natural Resource Management Ministerial Council

Our Vision

Australia's biodiversity is healthy and resilient to threats, and valued both in its own right and for its essential contribution to our existence



What is biodiversity?

Biodiversity is the variety of all life

Biodiversity occurs in all environments on Earth – on land, in rivers and lakes, and in the seas and oceans. There are three levels of biodiversity:

- genetic diversity—the variety of genetic information contained in individual plants, animals and micro-organisms
- species diversity—the variety of species
- ecosystem diversity—the variety of habitats, ecological communities and ecological processes.

Why is it important to conserve biodiversity?

Humans depend, directly and indirectly, on living systems for our health and well-being. No matter how technologically advanced we are, we rely on food, fibre, materials and energy from nature for our continuing existence.

Australia's biodiversity is under threat

In Australia, more than 1,700 species and ecological communities are known to be threatened and at risk of extinction. Degradation of our environment continues and many ecosystems are increasingly vulnerable to collapse. Our biodiversity is declining because of the impacts of a range of threats, including:

- habitat loss, degradation and fragmentation
- invasive species
- unsustainable use and management of natural resources
- changes to the aquatic environment and water flows
- changing fire regimes
- climate change.

Lost biodiversity can never be fully recovered, but through our conservation efforts we can help to ensure that species are able to persist and to restore the capacity of ecosystems to adapt to changes and disturbances—in other words, to build ecological resilience.

A new Strategy

Australia's Biodiversity Conservation Strategy 2010-2030 is a guiding framework for conserving our nation's biodiversity over the coming decades

All Australian governments collaborated to develop this Strategy and are committed to working together to stop the decline in biodiversity. Public input from a variety of sectors, interest groups and individuals has also been used to develop the Strategy.

Background to the Strategy

The 1996 *National Strategy for the Conservation of Australia's Biological Diversity* was developed to fulfil Australia's obligations under the 1993 *United Nations Convention on Biological Diversity* (CBD), which seeks to sustain the rich diversity of life on Earth. *Australia's Biodiversity Conservation Strategy 2010-2030* replaces the 1996 Strategy.

How will the Strategy be used?

All Australians must take responsibility for, and become involved in, biodiversity conservation. The Strategy is designed to provide a road map for how this can be achieved. Implementing the Strategy is a shared responsibility across all levels of government, the community and the private sector. The Strategy will be reviewed in 2015.

Priorities for action

The Strategy highlights three priorities for action to help stop the decline in Australia's biodiversity. These priorities indicate where change is needed in the way Australians view, understand and approach biodiversity issues. They identify the key areas on which we must focus effort if we are to maintain our unique animals, plants and functioning ecosystems that provide many ecosystem services.

Each of the priorities for action is supported by subpriorities, outcomes, measurable targets and actions. Together these provide an integrated strategic focus for our efforts. See Appendix 2 of the Strategy.



Swift Parrot (Photo: Dave Watts)

Case study: South West Australia Ecoregion Conservation Plan



Kangaroo Paw (Photo: Nicola Bryden & DSEWPaC)

The South West Australia Ecoregion (WA) is recognised as one of 34 global biodiversity hotspots. A consortium of key WA organisations with funding from the Australian Government and led by WWF Australia and the Department of Environment and Conservation (DEC) are developing a conservation plan for the Ecoregion. The project brings together government, non-government, industry, tertiary, regional natural resource management (NRM) and community organisations holding key biodiversity data (including DEC, WA Museum and Birds Australia).

The conservation plan utilises a data-rich, explicit planning process that is informed by robust expert advice. Implementation of on-ground work will be carried out in high priority areas identified through the planning process to improve the condition, connectivity and resilience of habitats and landscapes, as well as increase land manager knowledge and skills.

Achieving the Strategy's vision

The Strategy highlights three priorities for action:

1. Engaging all Australians
2. Building ecosystem resilience in a changing climate
3. Getting measurable results

Principles underpinning the Strategy

- We share the Earth with many other life forms that have intrinsic value and warrant our respect, whether or not they are of benefit to us.
- Biodiversity is best conserved by protecting existing natural habitats.
- Effective conservation of biodiversity operates at the landscape and seascape scale across public and private tenures.
- Natural ecosystems are dynamic but have a finite capacity to recover from external threats, impacts and pressures.
- Building resilience recognises the critical links between ecological and social systems.
- All Australians benefit from biodiversity; all Australians can and should contribute to its well-being.
- Our efforts to conserve biodiversity must acknowledge and respect the culture, values, innovations, practices and knowledge of Indigenous peoples.
- Knowing that our knowledge is limited, we should apply the precautionary principle while employing adaptive management approaches using new science and practical experience.



Case study: Corroboree Frog breeding program (Australian Capital Territory Government)

The captive breeding program for the Northern Corroboree Frog (*Pseudophryne pengilleyi*) at Tidbinbilla Nature Reserve aims to maintain a captive 'assurance' colony as a precaution against extinction in the wild. The program is undertaken by ACT Parks, Conservation and Lands and is part of the National Recovery Program for Corroboree Frogs (*Pseudophryne* species) and the ACT Action Plan for the northern species.

The Northern Corroboree Frog is listed as threatened in the ACT, NSW and nationally. In the ACT, there are estimated to be less than 100 Northern Corroboree Frogs left in the wild.

The ACT has established successful husbandry and captive breeding methods. Since 2007 the captive population has numbered between 700 and 1,500 individuals. Over 1,000 eggs have now been laid in captivity. A captive breeding and release strategy has been prepared and release of captive bred individuals into the wild is planned to occur within the next two years.

Key partners in this program include ACT universities (University of Canberra and Australian National University), Australian zoos (Melbourne and Taronga), NSW Department of Environment, Climate Change and Water, the Corroboree Frog Recovery Team and the Amphibian Research Centre in Melbourne.



Northern Corroboree Frog
(Photo: M. Evans / ACT Government)

Priority for action 1

Engaging all Australians through:

»» mainstreaming biodiversity

Mainstreaming biodiversity is more than just raising awareness of biodiversity conservation. It also means finding ways to get more Australians—whether individuals or private organisations—to participate in biodiversity conservation. Ultimately, mainstreaming biodiversity means integrating biodiversity into decision making so that it becomes everyone's business and is part of every relevant transaction, cost and decision.

»» increasing Indigenous engagement

Indigenous peoples play a significant role in biodiversity conservation in Australia. Not only do they hold title over a large and increasing proportion of Australia's lands and waters, they are also the guardians of traditional ecological and cultural knowledge of Australia's natural environments.

Increasing Indigenous engagement through employment, partnership and participation and promoting the two-way transfer of knowledge will lead to both increased opportunities for Indigenous peoples and improved outcomes for biodiversity.

»» enhancing strategic investments and partnerships

Cooperation between different parts of the community is essential for effective biodiversity conservation. In addition to existing



Students checking on protected Blown Grass, Spalding SA (Photo: Dragi Markovic and DSEWPaC)

partnerships, we also need to look for ways of extending involvement to a broader range of individuals and groups.

Increasing investment in biodiversity conservation by the private sector and collaboration between government and other sectors will make the most of the financial and practical resources that are available to address biodiversity decline.

Markets and market-based instruments also provide a way to value biodiversity so that it can be considered alongside economic and social factors. These mechanisms are emerging as an effective means of creating incentives for long-term investments in biodiversity conservation, as a complement to regulatory measures.

See case study in this brochure: ecoMarkets.

Priority for action 1: Engaging all Australians

Subpriorities	2015 National Targets
1.1 Mainstreaming biodiversity	1 By 2015, achieve a 25% increase in the number of Australians and public and private organisations who participate in biodiversity conservation activities.
1.2 Increasing Indigenous engagement	2 By 2015, achieve a 25% increase in employment and participation of Indigenous peoples in biodiversity conservation.
1.3 Enhancing strategic investments and partnerships	3 By 2015, achieve a doubling of the value of complementary markets for ecosystem services.

Priority for action 2

Building ecosystem resilience in a changing climate by:

»» protecting diversity

Protecting diversity is a core focus for our conservation efforts and means making sure that representatives of terrestrial, aquatic and marine ecosystems and their component species and genes are conserved into the future.

We can protect diversity in a number of ways, for example by: maintaining the extent of habitat; creating nature reserves or conservation management agreements on public and private land; organising complementary sustainable land and sea management practices; and implementing targeted species-specific conservation.

See case studies in this brochure: Corroboree Frog breeding program and Tasmanian Midlands Biodiversity Hotspot Project.

»» maintaining and re-establishing ecosystem functions

Biodiversity is critical to the ecosystem functions that provide supporting, provisioning, regulating and cultural services, for example oxygen production, soil formation and retention, pollination services, water and nutrient cycling, and carbon storage. These functions are essential for our survival.

Well-functioning ecosystems also contribute to ecological resilience. Building connectivity



Yellow-footed rock-wallaby
(Photo: Department of Environment and Resource Management, Qld)

within and between landscapes and seascapes is an important consideration in managing and conserving biodiversity. Linking habitats creates opportunities for species to move as the climate changes and is also likely to play an important role in retaining genetic diversity.

»» reducing threats to biodiversity

Despite our efforts, most of the drivers of biodiversity decline have yet to be adequately addressed. The main threats to Australia's biodiversity include: habitat loss, degradation and fragmentation; invasive species; unsustainable use and management of natural resources; changes to the aquatic environment and water flows; and changing fire regimes. Climate change is a threat in its own right and will magnify the impact of existing threats.

Reducing threats to biodiversity will help improve the condition of ecosystems and help us to prevent species from becoming threatened.

Priority for action 2: Building ecosystem resilience in a changing climate

Subpriorities	2015 National Targets
2.1 Protecting diversity	4 By 2015, achieve a national increase of 600,000 km ² of native habitat managed primarily for biodiversity conservation across terrestrial, aquatic and marine environments.
2.2 Maintaining and re-establishing ecosystem functions	5 By 2015, 1,000 km ² of fragmented landscapes and aquatic systems are being restored to improve ecological connectivity.
	6 By 2015, four collaborative continental-scale linkages are established and managed to improve ecological connectivity.
2.3 Reducing threats to biodiversity	7 By 2015, reduce by at least 10% the impacts of invasive species on threatened species and ecological communities in terrestrial, aquatic and marine environments.

Priority for action 3

Getting measurable results through:

»»improving and sharing knowledge

There are significant gaps in our current knowledge of biodiversity and incomplete data coverage for many parts of Australia. There is also much we still need to understand about how the many animals, plants and micro-organisms contribute to broader ecological functions and to the health of the environment and the community.

Ensuring knowledge is interpreted for a wide audience, communicated clearly, and made accessible will improve planning and drive greater communication between researchers, policy makers and on-ground biodiversity managers.

We also need to improve the alignment of applied research with priorities for biodiversity conservation so that new knowledge can be used to adapt management accordingly.

»»» delivering conservation initiatives efficiently

Delivering conservation initiatives efficiently is vital to ensure that our efforts and investments produce the greatest long-term benefits for biodiversity.

Aligning biodiversity conservation activities across Australia with the Strategy will ensure activities are prioritised, targeted and designed to deliver real conservation benefits. Consistent approaches to biodiversity conservation—



Agriculture, Kununurra, WA (Photo: Nicole Middleton)

including through legislative and policy review and reform—will also help to ensure conservation initiatives are delivered more efficiently.

»»» implementing robust national monitoring, reporting and evaluation

Implementing robust national monitoring, reporting and evaluation of the state of biodiversity and the success of conservation actions is crucial in ensuring that our efforts are really making a difference to biodiversity.

Monitoring changes to biodiversity and the environment over time will also help us to understand how to intervene to build broader landscape resilience. Adaptive management approaches are a particularly important part of how we respond to climate change, as the impacts on and consequences for biodiversity are progressively understood.

See case study in this brochure: South West Australia Ecoregion Conservation Plan.

Priority for action 3: Getting measurable results

Subpriorities	2015 National Targets
3.1 Improving and sharing knowledge	8 By 2015, nationally agreed science and knowledge priorities for biodiversity conservation are guiding research activities.
3.2 Delivering conservation initiatives efficiently	9 By 2015, all jurisdictions will review relevant legislation, policies and programs to maximise alignment with Australia's Biodiversity Conservation Strategy.
3.3 Implementing robust national monitoring, reporting and evaluation	10 By 2015, establish a national long-term biodiversity monitoring and reporting system.

We need to do more, now, to conserve Australia's biodiversity

Individually and collectively we can, and must, find ways of living sustainably and without destroying the biodiversity around us

We know that our actions have had serious and lasting impacts on many species and ecosystems across the planet. We have altered our environment to the extent that we can no longer take for granted a future in which nature supports our physical, economic and social needs.

We all need to work together towards shared goals if we are to conserve our natural, living wealth – our biodiversity – for future generations.

Case study: ecoMarkets (Victorian Government)

ecoMarkets is a term used by the Victorian Government to describe a range of market-based systems aimed at addressing environmental decline. The main function of ecoMarkets is to provide incentives for private landholders, who own 65% of Victoria's land, to manage their land in ways that conserve and enhance the environment.

BushTender, EcoTender and BushBroker are examples of ecoMarkets that have had significant positive impacts on environmental quality on private land. BushTender and EcoTender adopt auction-based approaches, while BushBroker is a system of tradeable credits. Landholders are able to earn income from ecoMarkets if they are able to provide environmental improvements in a cost-effective way. For more information visit www.dse.vic.gov.au

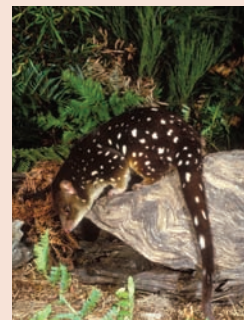


Ribbon Gums, East Gippsland (Photo: John Baker & DSEWPaC)

Case study: Tasmanian Midlands Biodiversity Hotspot Project (Australian and Tasmanian Governments)

The Tasmanian Midlands region is a nationally important 'hot spot' for its unique biodiversity, with over 180 rare and threatened plant and animal species. The main aim of the project was to work with landholders across the Midlands to help them protect the long-term future of native ecosystems with particular attention to threatened species and other special values on their own land. Under the project, 16 important biodiversity conservation agreements were secured covering 1,470 hectares of forest, woodland, grassland and wetland.

The project was run by the Southern Midlands Council, supported by Northern Midlands Council, the Tasmanian Department of Primary Industries and Water and the Tasmanian Natural Resource Management (NRM) Regions.



Spotted-tailed Quoll (Photo: Dave Watts)



For more information visit <http://www.environment.gov.au/biodiversity/strategy>

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Above left: Boardwalk construction, NT (Photo: Anindilyakwa Land and Sea Rangers and DSEWPaC)

Above right: Rainforest hikers in the Wet Tropics of Queensland (Photo: Wet Tropics Management Authority - Qld)