



Conserving Adelaide's Biodiversity

What it means for Members of Parliament and Councillors

Changes are needed in the way we think, act and make decisions in order to conserve South Australia's biodiversity. We all have a part to play in protecting our natural biodiversity.

The Adelaide region's bushland, coastal and watercourse environments are characterised by a unique assemblage of plants and animals. Having evolved over thousands of years they are specially adapted to the local climate, soil and water conditions. They provide the biological stability that sustains the region's natural resources.

The Kurna, the indigenous people of the Adelaide region, managed this unique environment for thousands of years prior to European settlement. Descendants of the Kurna people still live in the Adelaide area.

Today, Members of Parliament and Councillors as community leaders are in a position to influence government and community attitudes towards biodiversity conservation. This brochure describes what biodiversity is, why it is important and what you can do to promote biodiversity conservation.

What is biodiversity?

Let's consider what we mean by biodiversity. Biodiversity (or biological diversity) is the variety of all forms of life - the different plants, animals and micro-organisms, the genes they contain, and the ecosystems of which they form a part. Australia is committed to the conservation of biodiversity, the sustainable use and management of its components, and the equitable sharing of genetic resources.

Biodiversity planning is essential if we as a community are to effectively conserve urban biodiversity - our natural heritage.

Changes are needed in the way we think, act and make decisions in order to conserve Australia's ecosystems for the benefit of future generations, while meeting the needs of Australians today. We need to reappraise how we integrate the management of our natural resources with our economic resources, which are largely based on introduced species.

Our urban areas have a significant imbalance between natural ecosystems and those we have created through using introduced species. This situation is threatening to overwhelm our remaining natural biodiversity.

What does this mean for you? It means appreciating what Adelaide was originally like, understanding what it is like now - and helping to protect and restore Adelaide's diverse natural areas.

Adelaide in 1836

According to early reports, there were kangaroos and wombat holes in Victoria Square and bilbies and platypus in and along the River Torrens. Native lilies and orchids flowered in the streets of Adelaide and dingoes were often heard in the distance.



Black-chinned honeyeater (*Melithreptus gularis*)

In and around Adelaide there were 21 different vegetation associations ranging from open forests and woodlands along South Road at Black Forest to shrublands at Marino. Travelling from Glenelg to the city took several hours, and was made difficult by the numerous swamps and creeks that had to be crossed. Near where Football Park now stands were reed beds where black swans, ducks, ibis, herons and spoonbills flocked. Six different frog species could be heard in

the shallow wetlands and numerous native fish and yabbies occurred in Adelaide's creeks and rivers.

Native species were spread continuously across the whole region, ensuring that native plants were pollinated, soil kept in place, water ebbed and flowed in seasonal patterns, and various species were kept from becoming over-abundant.

What remains today

Today only 2% of the Adelaide Plains' original vegetation cover is left. Of the 725 native plant species of the region, 140 (19%) are locally extinct and another 393 (54%) are rare or threatened. In many cases they've been replaced by introduced species.

Our suburbs, factories and roads cover what was once extensive native grassland and woodlands capable of feeding large numbers of native mammals and birds.

Of the 22 mammal species once found in the Adelaide region, one is extinct and 18 are locally extinct. The large flocks of waterfowl that once took to the air have long since disappeared. Of the 229 species of birds once recorded, 12 are now extinct and 9 others have such low numbers that they will probably not survive locally.

Apart from birds, indigenous wildlife is uncommon in our suburbs. At night, brush-tailed possums are still out looking for food, while the mournful hoot of a lone Morepork (or Boobook owl) frequently goes unanswered. Blue-tongued and shingle-back lizards, geckos, and the occasional snake, have adapted to suburban life.

Our creeks and rivers no longer rise and fall in response to natural runoff; they have become storm and wastewater drains. No longer do they contain the diversity of native fish and frogs of the past. The few survivors are supplemented by introduced species like carp and trout.

Since the arrival of Europeans, Adelaide's natural biodiversity has not only been reduced and fragmented; it has also been invaded by many hundreds of introduced species. Our unique native marsupials and rodents have been replaced by dogs, cats, hares, horses, goats, mice, rats and foxes. Huge areas of what was native bush are now covered with ornamental trees, shrubs and lawn. Other areas have been cleared for agricultural and industrial use. This invasion has been so extensive that the biodiversity with which we are now familiar bears little or no resemblance to the natural biodiversity that was here two hundred years ago.

Many of the introduced species are the very resources on which we have come to depend on for food and

fibre and are the basis of much of our economy. This means that we are going to have to change the way we think, act and make decisions if we are to meet the needs of Australians today as well as conserve our natural biodiversity for future generations.

Establishing a balance

Over the past 200 hundred years or so, the prevailing view has been that because native species and ecosystems do not provide for our basic needs we have the right to clear them and replace them with more desirable introduced species. The only justification for our actions is that we knew more about the husbandry of the introduced species than the ones that were already here.

Our community has invested far more time developing farming and recreational practices based on introduced species than in finding ways of using the species and ecosystems already here. For example, more time has been spent in cultivating introduced grasses and ornamental plants than in breeding and selecting native species such as Sturt's desert pea for use in parks and gardens. Even species like Western Australian eucalypts and eastern Australian wattles are preferred to the local species.

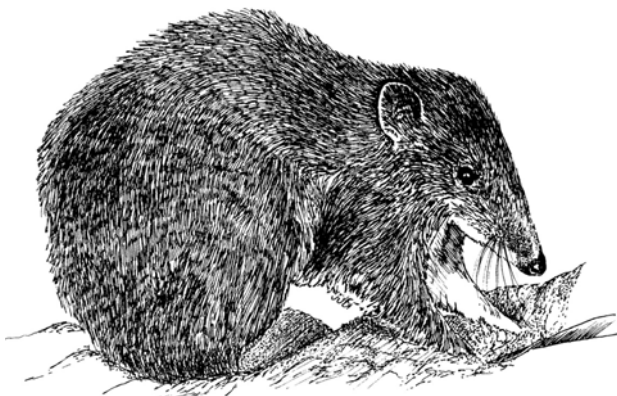
The remaining fragmented remnants of native vegetation are tiny 'islands' surrounded by a large 'sea' of changed landscapes. To restore a more reasonable balance between the natural and the cleared areas it is imperative that areas are reclaimed for natural biodiversity. This will entail restoring or enlarging remnant areas, revegetating cleared areas, joining remnants by establishing corridors of native vegetation, or creating 'buffers' to protect remnant bushland.

Without positive action, our natural biodiversity will continue to diminish.

What community leaders can do

- Become familiar with biodiversity conservation issues in your area.
- Read the summary document, *Conserving Adelaide's Biodiversity: A planned approach* and make a list of ideas that come to mind on what you might do.
- Promote an understanding of the principles of ecologically sustainable development (ESD) by writing material for local papers or newsletters.
- Have biologists address your party or council on ESD and bioregional planning as it applies to the local area.

- Seek advice on how any legislation or council decisions support ESD.
- Support legislation or decisions that enhance bioregional planning.
- Seek 'State of the Environment' reporting to indicate what is happening to biodiversity at the bioregional level.
- Develop and implement policies which seek to balance economic growth and development with the protection and extension of natural biodiversity.
- Identify and promote ecologically sustainable lifestyles suitable for your electorate/council area.
- Adopt a personal lifestyle and appropriate work practices that minimise effects on the natural environment.
- Maintain a permanent group of bioregional officers across the State to encourage and coordinate community responses to biodiversity issues.
- Deal with biodiversity issues by creating a coalition of interested parties, e.g. extend the use of the Bookmark Biosphere Trust model for the conservation of large areas.
- In working towards achieving ESD, recognise that the economy can work best only when natural systems are functioning well.
- Make seeding grants available to catalyse community based actions.
- Support local community groups that are involved in biodiversity management.
- Promote the importance of biodiversity to other MPs and Councillors.



Southern Brown Bandicoot
(*Isodon obesulus obesulus*)

What councillors can do

- Encourage council action in support of biodiversity through 'Agenda 21'.
- Develop a biodiversity conservation plan for your area and allocate an annual budget for on-ground actions.
- Ensure preparation of plans with set objectives and targets for biodiversity performance.
- Strive for continual improvement in environmental performance by your council.
- Implement policies which seek to balance development requirements with the protection and conservation of biodiversity in the natural and built environments.
- Create and direct a future which values and promotes biodiversity conservation and restoration.
- Encourage all citizens in your council area to participate in the vision for biodiversity conservation.
- Promote biodiversity conservation projects in council publications and websites.

Further reading

Dashorst, G.R.M. and Jessop, J.P. 1990, *Plants of the Adelaide Plains and Hills*, The Botanic Gardens of Adelaide, Adelaide.

Kraehenbuehl, D.N. 1996, *Pre-European Vegetation of Adelaide*, Nature Conservation Society of South Australia Inc., Adelaide.

Prescott, A.M. 1988, *It's Blue with Five Petals*, The Author, Adelaide.

Robertson, M. 1994, *Stop Bushland Weeds*, Nature Conservation Society of South Australia Inc., Adelaide.

For further information contact:

SA Urban Forest Biodiversity Program
Wittunga House
328 Shepherds Hill Road
BLACKWOOD SA 5051
Telephone (08) 8278 0600
Facsimile (08) 8278 0619
Email info@urbanforest.on.net
www.urbanforest.on.net