



Saving Our Species

A commitment by the
Government of Western Australia



Dr. Carmen Lawrence
Premier

CHUDITCH OR WESTERN QUOLL . MULGARA OR MINYI-MINYI . DIBBLER. RED-TAILED PHAECOGALE . SANHILL DUNPART . NUMBAT OR WALPURTI . SOUTHERN BROWN BANDICOOT OR QUENDA . GOLDERN BANDICOOT OR WINTARRU . WESTERN BARRED BANDICOOT . DESERT BANDICOOT OR WAILYN . PIG-FOOTED BANDICOOT OR KANTJILPA . DALGYTE OR BILBY OR NINU . LESSER BILBY OR TJUNPI . WESTERN RINGTAIL POSSUM . GILBERT'S POTOROO . BROAD-FACED POTOROO . BRUSH-TAILED BETTONG OR WOYLIE . BURROWING BETTONG OR BOODIE . SPECTACLED HARE-WALLABY OR WAMPANN . RUFOUS HARE-WALLABLY OR MALA . CENTRAL HARE-WALLABY OR KULLIWARRI . CRESCENT NAILTAIL WALLABY OR TJAWOLFO . BLACK-FOOTED ROCK-WALLABY OR WARRU . TAMMAR . BARROW ISLAND EURO . SHARK BAY MOUSE . GOULD'S MOUSE . PLAINS RAT . HEATH RAT . WESTERN MOUSE . GROUND PARROT . NIGHT PARROT . SCARLET-CHEATED PARROT . CICADABIRD . EASTERN GRASS OWL . PURPLE-CROWNED FAIRY-WREN . ORANGE-BELLIED PARROT . NORTHERN SCRUB-ROBIN . CHUDITCH OR WESTERN QUOLL . MULGARA OR MINYI-MINYI . DIBBLER. RED-TAILED PHAECOGALE . SANHILL DUNPART . NUMBAT OR WALPURTI . SOUTHERN BROWN BANDICOOT OR QUENDA . GOLDERN BANDICOOT OR WINTARRU . WESTERN BARRED BANDICOOT . DESERT BANDICOOT OR WAILYN . PIG-FOOTED BANDICOOT OR KANTJILPA . DALGYTE OR BILBY OR NINU . LESSER BILBY OR TJUNPI . WESTERN RINGTAIL POSSUM . GILBERT'S POTOROO . BROAD-FACED POTOROO . BRUSH-TAILED BETTONG OR WOYLIE . BURROWING BETTONG OR BOODIE . SPECTACLED HARE-WALLABY OR WAMPANN . RUFOUS HARE-WALLABLY OR MALA . CENTRAL HARE-WALLABY OR KULLIWARRI . CRESCENT NAILTAIL WALLABY OR TJAWOLFO . BLACK-FOOTED ROCK-WALLABY OR WARRU . TAMMAR . BARROW ISLAND EURO . SHARK BAY MOUSE . GOULD'S MOUSE . PLAINS RAT . HEATH RAT . WESTERN MOUSE . GROUND PARROT . NIGHT PARROT . SCARLET-CHEATED PARROT . CICADABIRD . EASTERN GRASS OWL . PURPLE-CROWNED FAIRY-WREN . ORANGE-BELLIED PARROT . NORTHERN SCRUB-ROBIN . CHUDITCH OR WESTERN QUOLL . MULGARA OR MINYI-MINYI . DIBBLER. RED-TAILED PHAECOGALE . SANHILL DUNPART . NUMBAT OR WALPURTI . SOUTHERN BROWN BANDICOOT OR QUENDA . GOLDERN BANDICOOT OR WINTARRU . WESTERN BARRED BANDICOOT . DESERT BANDICOOT OR WAILYN . PIG-FOOTED BANDICOOT OR KANTJILPA . DALGYTE OR BILBY OR NINU . LESSER BILBY OR TJUNPI . WESTERN RINGTAIL POSSUM . GILBERT'S POTOROO . BROAD-FACED POTOROO . BRUSH-TAILED BETTONG OR WOYLIE . BURROWING BETTONG OR BOODIE . SPECTACLED HARE-

Cover:

Numbats illustration by
Martin Thompson

Contents

Contents	1
A Message from the Premier	2
Summary of Key Initiatives	3
The Nature of the Problem	5
Legislative and Strategic Frameworks	6
Integrated Action Across All Agencies and Volunteer Groups	7
Species Recovery Plan	8
The Byford Endangered Species Centre	12
Community Involvement and Education	13

A Message From The Premier



Dr Carmen Lawrence, MLA

Western Australia has a vast treasure of native flora and fauna. It is also the last refuge for many species that were once common across Australia. Unfortunately, during the 200 years of European settlement and before attention was paid to species survival, many of Australia's mammal and plant species became extinct.

The State Government has acted quickly to prevent the loss of any more unique species.

- Researchers have worked to identify the probable reasons for extinction and decline.
- Captive breeding successes have already been recorded for several species.
- Ambitious plans are being formed to re-locate animals which are now extinct on the Australian mainland from areas where they have survived.

Legislation and policies are being put in place to protect the State's rare and endangered species.

The Government relies on its dedicated professionals working at Departments of Conservation and Land Management and Agriculture, the Perth Zoo, the Museum and King's Park, who carry the burden for protecting our flora and fauna and saving threatened species.

It recognises that a determined effort is needed to prevent the loss of any more unique species, but it alone cannot solve the problems - it is asking that the community make a commitment to help.

Save our Species must become a catchcry of the 1990's.

The challenge to protect our endangered species embraces all walks of life. The Government is determined to raise the profile of the issue and will seek help from the community and business to preserve the State's natural heritage.

No previous generation of children has been made so aware of the need to preserve the creatures of our planet. It is to them that we must dedicate a pattern of commitment to the State's natural living gifts.

Summary of key initiatives

- The Government will repeal the outdated and inadequate Wildlife Conservation Act 1950 and replace it with legislation which better provides for the protection of threatened species. Proposed new legislative provisions will significantly increase the penalties for illegal taking of threatened species from the present \$10 000, to \$60 000 for individuals and \$100 000 for corporations. Full consultation with key local government, industry and environmental bodies will ensure that views on the legislation are heard.
- A draft Nature Conservation Strategy prepared by CALM will be released for public discussion in December. A public response plan will ensure that all views are heard for incorporation in the final strategy to be released next year.
- The Government has established two threatened species advisory committees - one for flora and one for fauna - to ensure that appropriate integrated action is taken to assist threatened species to recover and to re-establish viable and secure populations in the wild.
- The Government will establish a Threatened Species Unit within CALM to co-ordinate work across all agencies and volunteer conservation groups. Its Advisory Council will include the chief executives of the relevant State Government agencies and representatives of local government and non-government conservation organisations.
- The Government will establish inter-agency teams to prepare and implement recovery plans for each species identified by its threatened species advisory committees as being at great risk of extinction.
- The Government will establish common biological data-bases for the reference collections of the Western Australian Museum, King's Park, Perth Zoo, the Herbarium and CALM. Links will be established with the International Species Information System (ISIS) which services 400 living zoological collections around the globe.
- In addition to the expansion of existing programs of fox and feral cat control the Government will, following release of the Nature Conservation Strategy, issue new dieback and wetlands programs.
- The Government will extend the conservation reserve system to make it as representative of endangered species and their habitats as possible.
- The Government is working to set up the Byford Endangered Species Centre to build on Western Australia's national and international reputation in the areas of captive breeding and community education. Community groups and private sector business and industry groups will be offered opportunities to accelerate the development of the Byford Centre through donations and corporate sponsorships to the newly founded Perth Zoo Society.
- The Government will continue financial assistance for fencing to private landholders under the Remnant Vegetation Protection Scheme and through CALM's Declared Rare Flora Program, with emphasis on

threatened species. Where appropriate, the Government will enter into agreements under Section 16 of the Conservation and Land Management Act for joint management of private land for conservation of endangered species.

- The Government will introduce a youth support scheme assisted by volunteers so that unemployed youth can participate in short-term support programs for endangered species and associated training in conservation.
- The Government will give a prominent role to public education and community involvement in its Nature Conservation Strategy, recognising that increased public support and individual action are required to put things right. A special conservation education advisory council will be established to undertake co-ordination of government and non-government bodies.
- The Government will establish two postgraduate research scholarships to be awarded annually for doctoral studies in Western Australian universities.

The Nature of the Problem

Australia has a poor track record with conservation of native flora and fauna. The problem relates to individual plant and animal species as well as to naturally occurring ecological systems.

Animal Species

Eighty eight Western Australian animal species are currently threatened. Some, like the spectacled hare wallaby, are on the brink of extinction. During the 200 years of European settlement more species of mammals (20 in all) have become extinct in Australia than in any other country or continent.

Australia accounts for half of all mammal species that have become extinct world-wide in recent times. Nationally, 110 species are currently considered endangered or vulnerable. Western Australia is the last refuge for many species that were once common right across Australia. So species recovery programs in Western Australia have **national significance**.

Plant Species

The flora of Australia is very rich in species, especially in the heathlands of Western Australia's south-west. Extensive clearing for agriculture has destroyed the habitat of many, caused the extinction of some and left others surviving only in remnant populations outside conservation reserves.

About 100 kinds of Australian flowering plants have become extinct since European settlement, 53 of them in Western Australia. Nationally, nearly 1 000 plant species are currently considered to be endangered or vulnerable, 260 of them in Western Australia. Nearly 1400 populations of these plants are known, but 980 of them are outside declared conservation reserves.

The problem is large and important. However, the Government through its principal conservation agencies has had major success in recent times in species protection and re-establishment. This success demonstrates that the problem can be solved. The policy directions set out in this statement build on pioneering work that is well under way in Western Australia.

Legislative and Strategic Frameworks

The Government will repeal the outdated and inadequate Wildlife Conservation Act 1950 and replace it with legislation which better provides for the protection of threatened species and see programs introduced which will:

- adopt an ecological view of the environment to recognise the relationship between species and habitats and the importance of maintaining natural ecological systems
- apply across all environments (land, sea, freshwater and air) and all land tenures
- contain a range of new provisions to regulate public use of threatened ecosystems and the taking of species, and describe offences and increased penalties.

Full consultation with key State, local government, industry and environmental bodies will ensure that views on the legislation are heard.

To assist people to better understand the Government's overarching principles, objectives and strategies across the full range of conservation issues in Western Australia, a draft Nature Conservation Strategy, prepared by CALM will be released for public discussion in March. A public response plan will ensure that all views are heard for incorporation in the final strategy to be released next year.

Integrated Action Across All Agencies and Volunteer Groups

Legislative action and the Nature Conservation Strategy will provide the framework for the Government's specific actions to save rare and endangered species. Integrated action across all government agencies and volunteer groups is paramount. The agencies involved include:

- The Department of Conservation and Land Management (CALM)
- The Perth Zoo
- King's Park
- The Western Australian Museum
- The Department of Agriculture
- Environmental Protection Authority
- Local Government Authorities
- The Universities
- CSIRO
- Australian National Parks and Wildlife Service
- National Parks and Nature Conservation Authority
- Landcare Committees
- Volunteer Conservation Groups

The Government has established two threatened species advisory committees - one for flora and one for fauna - to ensure that appropriate integrated action is taken to assist threatened species to recover and to re-establish viable and secure populations in the wild.

The Government will establish a Threatened Species Unit within CALM to co-ordinate work across all of these groups. The Unit's advisory council will include the chief executives of the relevant state government agencies and representatives of local government and non-government conservation organisations. The Unit's functions are to ensure that:

- Proper support is given to the work of the Government's threatened species advisory committees
- The status of native species in the wild and in captivity is kept under review
- Priority lists of endangered species are prepared and disseminated
- Integrated action to implement species recovery plans is carried out
- Research priorities are established and carried out
- Appraisals of progress and problems are brought before the public annually.

Species Recovery Plans

Species recovery plans are the key strategy in saving endangered species. The Government will establish interagency teams to prepare and implement recovery plans for each species identified by its advisory committees as being at great risk of extinction.

A recovery plan sets out the reasons for the decline and the specific action required to arrest the decline and lead to recovery. Plans have already been completed for the western swamp tortoise, chuditch, tammar, woylie, black-flanked rock wallaby, Shark Bay mouse and the endemic frogs *Geocrinia alba* and *G. vitellina*. Recovery plans are nearing completion for eight rare flora, including Purdie's donkey orchid.

These and other projects currently being developed by CALM have been provided for in their 1991/92 Budget of \$1.167m for endangered species initiatives.

A key component of recovery plans is the identification of the factors leading to the decline of species and actions consistent with those factors which should lead to the recovery of the species. The preparation and implementation of a recovery plan may involve all or some of the following.

Scientific Support

The best available scientists and scientific knowledge are required to establish:

- an inventory of the State's flora and fauna species, their distribution and abundance, their ecological relationships and evolutionary history
- the reasons species are threatened whether it be habitat loss or change, predation and competition by feral animals and weeds, diseases such as *Phytophthora* fungi which causes dieback, or other factors such as climatic change
- habitat requirements, life-cycles, growth and reproductive patterns, position in the food chain and the natural and unnatural factors causing changes in population numbers
- veterinary studies of wild and captive animals to determine the impact of diseases on conservation objectives
- genetics research to support the preservation of as much of a species' essential variability as possible
- the potential application of such technologies as germplasm banking, artificial insemination, in-vitro fertilisation, embryo transplantation and DNA fingerprinting.

State agencies will prepare a co-ordinated approach to the Commonwealth for special funding to support the Save Our Species program. In due course, representation will be made to the Commonwealth Education Minister to place Western Australia's endangered species research program on co-operative research centre funding.

In line with this objective, the State Government will establish two post graduate research scholarships to be awarded annually for doctoral research studies on endangered species at Western Australian Universities.

Control of Feral Animals and Threatening Processes

The fox is a major national conservation problem. It has been strongly implicated in the extinction of mammals since European settlement. A fox eradication program at Dryandra has led to a remarkable recovery of the woylie population in that area. Feral cats are also effective hunters and in some areas are a greater problem than foxes.

Feral herbivores such as rabbits, donkeys, goats and camels threaten native species by damaging their habitats and competing with them for food. Spread of the introduced fungus *Phytophthora* causing dieback disease has devastated native vegetation throughout the South-West bringing some plant species to the brink of extinction. Salination of wetlands is completely altering habitats and threatening communities and species of aquatic flora and fauna.

In addition to the expansion of existing programs of fox and feral cat control the Government will, following release of the Nature Conservation Strategy, issue new dieback and wetlands programs.

The Agriculture Protection Board (APB) is co-ordinating a \$2 million campaign to eradicate feral goats and is co-operating with the CSIRO and two universities in research into biological control of rabbits and foxes. Other APB activities include a campaign to eradicate feral donkeys from the Kimberleys, research to make baiting techniques target specific so that native animals are not harmed, and a drive to prevent the establishment of European wasps.

Translocation and Reintroduction Programs

In recent decades many species have disappeared from much of their range even though their habitats seem to be intact. This situation exists in the case of a number of medium-sized mammals now extinct on the Australian mainland but secure on off-shore island reserves. Where the problem is due to feral predators or competitors it is possible to reintroduce the species by translocating from secure populations elsewhere or from captive bred or cultivated stock. Major success has been achieved with numbats, woylies, the greater stick-nest rat and noisy scrub birds. Ringtail possums are being monitored after their recent release on Leschenault Peninsula, near Bunbury, and preparations are complete to translocate burrowing bettongs and golden bandicoots from Barrow Island to the Gibson Desert.

The Government will continue to promote the establishment of programs to reintroduce endangered species to areas where they have become locally extinct.

Captive Breeding of Animals and Propagation of Plants

When the surviving numbers of a species in the wild become critically low it is necessary to resort to intensive captive breeding and propagation programs. Captive breeding successes have already been recorded for several species. The most dramatic is Australia's rarest animal, the western swamp tortoise. There were only 40 left in the world in 1989 but

a co-operative captive breeding program with CALM and the University of Western Australia at the Perth Zoo has since produced 32 surviving hatchlings. Another notable success has been achieved with the chuditch. The King's Park Nursery has achieved significant successes in plant propagation through innovative hormone preparations and special grafting techniques. Evidence of these developments may be seen in the Rare and Endangered Plant Garden at King's Park. Captive breeding and propagation of threatened species will also be encouraged in private wildlife sanctuaries in collaboration with government authorities.

Population Monitoring and Reference Collections

Proper inventories, record systems and reference collections are fundamental to the identification of threatened species and the forces affecting them over time. Monitoring known populations of threatened species and maintaining data-bases of locality, population data, habitat requirements, fire susceptibility or dependence, and other management data are essential for successful recovery programs and are an important aid in law enforcement as endangered species become the more frequent target of wildlife traffickers.

The Government will establish common biological data-bases for the reference collections of the Western Australian Museum, King's Park, Perth Zoo, the Herbarium and CALM. Links will be established with the International Species Information System (ISIS) which services 400 living zoological collections around the globe.

Reserve Creation and Management

Reservation of lands and waters to preserve habitats can be a key element in the preservation of species. Since 1983 the total area of nature reserves and national parks in Western Australia has increased from 14.3 to 15.3 million hectares. This includes reserves declared specifically to protect threatened species, such as the hidden beard heath on Beekeeper's Nature Reserve, north of Jurien. More than \$800,000 has been earmarked to develop and rehabilitate the Leschenault Peninsula, including the creation of a Leschenault Peninsula Park. Ring-tailed possums have been reintroduced to the Peninsula in conjunction with this development.

The Government will extend the conservation reserve system to make it as representative of endangered species and their habitats as possible. Negotiations are underway between CALM and Perth Zoo for a mutual swap of 300 hectares of Zoo land at Baker's Hill (for a nature reserve) for 300 hectares of State Forest surrounding the Zoo's Byford site.

Conservation on Private Lands

Many threatened species do not occur at all on nature reserves. A significant proportion sustain their strongest populations on private lands. Protection, in these cases, requires the support of the landholders to ensure that special provisions for habitat management, such as fencing, can be met.

The Government will continue financial assistance for fencing to private landholders under the Remnant Vegetation Protection Scheme and through CALM's Declared Rare Flora Program, with emphasis on threatened species. Where appropriate, the Government will enter into agreements under section 16 of the Conservation and Land Management Act for joint management of private land for conservation of endangered species.

Protection From Illicit Collection and Trade

Rare plants and animals are attractive to collectors. It is believed that there is significant illicit trade of birds and reptiles taken from the wild.

New legislative provisions will significantly increase the penalties for illegal taking of threatened species from the present \$10 000 to \$60 000 for individuals, and \$100 000 for corporations.

The Byford Endangered Species Centre

The Government is working to set up the Byford Endangered Species Centre to build on Western Australia's national and international reputation in the areas of captive breeding and community education.

The centre will bring together the resources, expertise and community support necessary to breed and reintroduce to the wild, animals that are on the brink of extinction. Achievement of this mission requires:

- enhancing the co-operative nature of endangered species projects with CALM, academia and other organisations
- consolidating at Byford the Perth Zoo's current captive breeding programs so that these animals will have the best opportunity to breed successfully in a safe environment
- research into the reproductive biology, nutrition and behaviour of these animals which will have invaluable spin-offs for wildlife management elsewhere in Australia and overseas
- assisting in the training of postgraduate students, zoo staff and wildlife managers, from Australia and overseas
- building on the established environmental education programs at the Perth Zoo through the introduction of field study to give Western Australian school children and other members of the community a "hands on" insight into saving our flora and fauna
- establishing permanent exhibits of rare and endangered animals to give the Western Australian community, as well as tourists, the rare opportunity to observe these special animals in their natural surroundings.

The Perth Zoo's 39 hectare Byford site is in the hills 40 kilometres south-east of Perth. The property has dams, pastures, bushland and gardens, and incorporates a fine old home - originally the Plaistowe Homestead - and outbuildings, which are partially restored. Much of the restoration to date has been completed through an innovative co-operative arrangement between the Department of Corrective Services and the Perth Zoo.

The centre will be developed through three stages at a rate commensurate with the degree of community support forthcoming for the centre.

Work on restoration, furnishing and equipping existing buildings and service facilities will cost \$750 000. Once this work is completed residential facilities for up to 90 people will be available to educational and community groups.

Community groups and private sector business and industry groups will be offered opportunities to accelerate the development of the Byford Centre through donations and corporate sponsorships to the soon-to-be-launched Zoo Society.

The Society will have 5 membership divisions including the Numbat Club for children aged 4 years and over.

Business and community groups will be able to participate in the Society's "sponsor a species" program to encourage community identification with rare and endangered animals that are not State emblems and therefore are not well known or appreciated.

Community Involvement and Education

Conserving indigenous wildlife requires a total community commitment with Government playing a management and co-ordination role.

The Perth Zoo with support from the Zoo Society will play a critical motivational and educational role in the promotion of environmentally caring behaviour in the community.

The Government will give a more prominent role to public education and community involvement in its Nature Conservation Strategy, recognising that increased public support and individual action are required to put things right. A special conservation education advisory council will be established to undertake co-ordination of government and non-government bodies.

CALM's highly successful volunteer conservation program will be expanded as will the Department of Corrective Services' Community Based Corrections Project at Byford.

CALM's volunteer program includes the full range of conservation activities from visitor information and interpretation, to camp ground hosting, wildlife research and survey, park rehabilitation, erosion control, visitor survey, park planning, friends groups, wildlife care and rehabilitation, wildlife rescue, historical research and work experience for students. Opportunities will be made available for involvement with endangered species conservation in the areas of captive management, release, tracking, protection and monitoring of animals in the wild.

The Community Based Corrections Project at Byford already covers restoration, construction and landscaping work. This will be expanded with other volunteer programs to include browse and live-animal food production for zoo animals, education programs, exhibit construction and off-site projects in the adjacent State forest and water catchment.

Aboriginal people have a special affinity with the land and its plants and animals. A solid foundation of consultation and involvement with Aboriginal communities has been established in the Kimberley, Pilbara, Gascoyne, Goldfields, South coast and Wheatbelt regions. Wildlife management has already improved as a result of this exchange of traditional knowledge. The reintroduction of traditional Aboriginal burning practices and feral animal control has contributed to a rise in populations of native animals.