

# Action Statement

Flora and Fauna Guarantee Act 1988

No. 87

## Major Mitchell's Cockatoo *Cacatua leadbeateri*

### Description and Distribution

Major Mitchell's Cockatoo, *Cacatua leadbeateri* (Vigors 1831) inhabits the arid and semi-arid regions of Australia, except the northeast. Its morphology and distribution are described in detail in Higgins (1999).

In Victoria it is restricted mainly to sparsely timbered grasslands, Pine-Buloke and Belah Woodlands, tall old mallee with suitable nest hollows, and riverine woodlands of Black Box and Red Gum (Pizzey and Knight 1997, Emison *et al.* 1987, Higgins 1999). Remnant vegetation surrounding agricultural land has also been used for nesting.

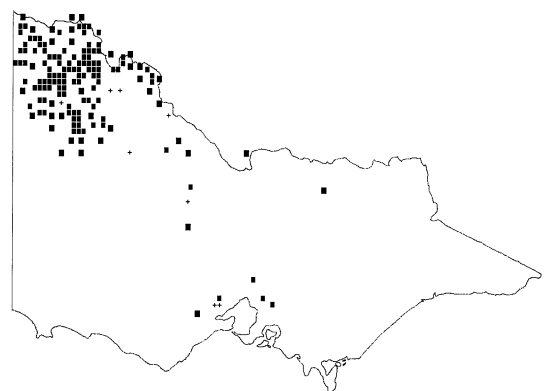
Wyperfeld and Murray-Sunset National Parks and the Big Desert Wilderness are the major strongholds for the species in Victoria. It also occurs in other reserves such as Annuello and Bronzewing, but is otherwise restricted to remnant vegetation on roadsides or grazed rangelands. Vagrants reach as far south as the You Yangs (Pizzey and Knight 1997).

Near permanent water, birds appear to be sedentary, but if food and water are limited they may become somewhat nomadic, and numbers fluctuate

(Forshaw and Cooper 1981). During droughts in the interior, birds may move to less arid areas. Major Mitchell's Cockatoos feed on the seeds of a wide variety of native shrubs and trees, which might be supplemented with insect larvae and the seeds of some agricultural crops and weeds. They are monogamous and nest in tree hollows, often in



Major Mitchell's Cockatoo, *Cacatua leadbeateri*  
(illustration of male and female by Alexis Beckett)



**Distribution in Victoria**  
+ before 1970, ■ since 1970  
[from Atlas of Victorian Wildlife, NRE 1999a]

old Cypress-pines. The species is long-lived, reproducing slowly and teaching the young over several years (Rowley and Chapman 1991).

## Conservation Status

### Current status

SAC (1995).....threatened

NRE (1999b).....vulnerable

The Major Mitchell's Cockatoo has received a final recommendation for listing as a threatened taxon (SAC 1995) and is listed on Schedule 2 of the **Flora and Fauna Guarantee Act 1988**.

### Reasons for conservation status

Although the species does occur in conservation reserves, the clearing of mallee scrubs and dry woodlands in other areas in the northwest of Victoria has reduced its range and numbers in the state (Emison *et al.* 1987).

Habitat has been lost or degraded by the selective harvesting of species such as Slender Cypress-pine, burning of fire-sensitive woodland vegetation, and increased grazing pressure from livestock, rabbits and kangaroos. These have destroyed nest hollows and severely reduced the regeneration of the key woody perennial plants which provide shelter, nest and food. Major Mitchell's Cockatoo has declined sharply in the southern part of its range in Victoria, and is now absent from Lake Hindmarsh, rare at Lake Albacutya, and retreating from southern Wyperfeld National Park (F. Noelker *pers. comm.*).

Illegal trapping or killing of adults and the removal of young from nests still occurs and may be affecting local populations of the species. The impact of past poisoning and destruction of birds to protect crops is largely unknown.

In its final recommendation, the Scientific Advisory Committee (SAC 1995) has determined that the Major Mitchell's Cockatoo is:

- in a state of demonstrable decline which is likely to result in extinction;
- significantly prone to future threats which are likely to result in extinction; and
- very rare in terms of abundance or distribution.

### Major Conservation Objective

The major conservation objectives are to ensure the long term viability of the Major Mitchell's Cockatoo within Victoria by:

- maintaining and enhancing existing habitat on private and public land;
- reducing illegal trade in the species; and
- investigating the specific requirements of the species and acting on the knowledge gained.

## Management Issues

### Ecological issues specific to the taxon

Major Mitchell's Cockatoo depends on tree hollows because it cannot excavate a nest. The widespread fragmentation and loss of woodland and Big Mallee and Chenopod Mallee communities has led to a sharp decline in the number of suitable hollows. Competition with other hollow-dependent animals, including feral Honey Bees, could also limit the number of hollows available to Major Mitchell's Cockatoos (Paton 1996).

Because Belah and Pine-Buloke Woodlands are extremely sensitive to fire, they could be eliminated by a single fire if subsequent grazing pressure is high, reducing the area to a grassland with almost no tree regeneration (as has occurred in Wyperfeld National Park).

The manipulation of the flood regime of the Wimmera River system has resulted in less frequent flooding of areas such as Wyperfeld National Park, which has in turn resulted in a lack of regeneration of the key riverine woodland species Black Box *Eucalyptus largiflorens* and River Red Gum *Eucalyptus camaldulensis* (Wouters 1993).

Major Mitchell's Cockatoos are very long lived (up to 80 years in captivity: D. Moy *pers. comm.*), so a decline in their abundance in the wild might not become apparent for some time. In the absence of significant recruitment, the risk of uncontrollable decline might thus be greater than is thought.

The attractive appearance of Major Mitchell's Cockatoos means that are sought after by specialist aviculturalists and command high prices overseas (P. Menkhorst *pers. comm.*; Higgins 1999). Although pairs rarely abandon robbed nests, they will not breed again in the same season (Rowley and Chapman 1991). Forshaw and Cooper (1981) considered illegal trapping and collection of nestlings to be a contributing factor in the species' decline in Western Australia, and this may also be true for Victoria. A large bird-poaching operation focused on Major Mitchell's Cockatoos was uncovered in the Victorian Mallee in 1991.

Major Mitchell's Cockatoo probably needs a more varied diet than other cockatoos (Rowley and Chapman 1991). In north-west Victoria this restricts the birds largely to native vegetation or the boundaries of cropped land. They are relatively poor fliers (Forshaw and Cooper 1981)

and appear to avoid taking long flights over open treeless areas. This might have contributed to their decline in agricultural areas. Because they can travel quite long distance when foraging, there could be an overestimation of numbers because of duplication of records. Because Major Mitchell's Cockatoos are not fast fliers and often feed on the ground, they can be killed by vehicle collision, particularly in summer when grain spills occur along roads (Rowley and Chapman 1991). There is also a risk of predation by Red Foxes *Canis vulpes* and Cats *Felis catus*.

Major Mitchell's Cockatoos have been responsible for occasional but sometimes considerable damage to crops such as wheat and almonds. The declaration of the Long-billed Corella *Cacatua tenuirostris*, Sulphur-crested Cockatoo *Cacatua galerita* and Galah *Cacatua roseicapilla* as unprotected wildlife enables landowners to take or destroy these species, subject to the conditions limitations and restrictions of the **Wildlife Act 1975**. Incorrect identification could result in the killing of Major Mitchell's Cockatoos.

#### **Wider conservation issues**

Major Mitchell's Cockatoo is one of numerous threatened species that inhabit woodlands in northwest Victoria. The primary cause of the decline of these species has been extensive clearing for agriculture and continuing degradation of suitable remaining habitat by overgrazing. The conservation of Major Mitchell's Cockatoo habitat in Victoria will assist the conservation of these species. Research and recommendations for management of the Major Mitchell's Cockatoo in Victoria will also be relevant to its conservation in other states.

Although it inhabits a range of plant communities, the Major Mitchell's Cockatoo is most common in Pine-Buloke and Belah Woodlands. Revegetation initiatives for these communities currently under way in all Victorian Mallee National Parks will assist the long-term conservation of the Major Mitchell's Cockatoo. Environmental education associated with the recovery of these favoured habitats should provide for increased community identification with wildlife issues, as well as rare and threatened species and their management generally.

Vegetation corridors play an important role in providing remnant habitat in areas otherwise cleared of tree species. Major Mitchell's Cockatoos often avoid flying across open treeless areas (Rowley and Chapman 1991). Corridor creation and maintenance is an excellent opportunity to involve the public in flora and fauna conservation.

#### **Social and economic issues**

The main human activities which affect Major Mitchell's Cockatoo are dryland agriculture, horticulture, fire protection, wood collection and recreation in riverine environments.

The provision of environmental flows for the lower reaches of the Wimmera River, to sustain and enhance the cockatoo's habitat, is likely to effect other water users on the open Wimmera-Mallee Channel System, but the extent of the effect is unknown.

Because Major Mitchell's Cockatoos inhabit both private and public land, including riparian areas which are popular for recreation, a wide range of people could be involved in the conservation of the species. Increased community education and participation would reduce the perceived impact of the cockatoos, and could promote novel solutions to management problems.

#### **Previous Management Action**

Areas of semi-arid habitat favoured by Major Mitchell's Cockatoos are protected in Hattah-Kulkyne, Wyperfeld and Murray-Sunset National Parks, and some smaller blocks have also been reserved.

Major reductions of grazing pressure in favoured habitats in each of these parks has established the basis for the regeneration of key woodland plants and Pine-Buloke Woodlands. Pine-Buloke Woodland has been revegetated in Hattah-Kulkyne National Park. In all Mallee national parks, rabbit and kangaroo numbers are monitored regularly, and rabbits are controlled when necessary.

The detection and prevention of illegal activities such as egg collecting, nest robbing, and trade has been carried out by NRE officers for many years. Surveillance of nest sites and recording of clutch size and breeding success to determine the prevalence of nest robbing commenced in 1995.

#### **Intended Management Action**

The following actions are to be implemented by NRE's North West Region.

1. Negotiate with landholders and land managers to conserve and enhance native vegetation suitable for use by Major Mitchell's Cockatoos on private and public land.
2. Reduce grazing pressure and control predators on public land that contains suitable breeding sites for Major Mitchell's Cockatoos.
3. Provide adequate resources to detect illegal activities at key times such as nesting.

4. Ensure that the conservation of Major Mitchell's Cockatoo is considered during the preparation and implementation of management plans, particularly fire management plans for Pine-Buloke and Belah Woodlands and the determination of water allocations.
5. Implement a program of public awareness and liaison with respect to conservation of vegetation types required by Major Mitchell's Cockatoo, the impacts that poaching may have on such a species, and the correct identification of the species by farmers involved in cockatoo control.
6. Coordinate research on the demographics of the species (including the use and availability in Victoria of resources that the species requires Major Mitchell's Cockatoo, the influences of introduced species and human activities, and habitat and food requirements and reproductive success); and research on the effects, if any, of the feral Honey Bee on breeding potential.
7. Identify potential routes for vegetation corridors to link communities that are important to the survival of the Major Mitchell's Cockatoo, and investigate the possibility of revegetation where necessary.

#### **Other Desirable Management Actions**

8. Improve legislative powers and provide suitable penalties to deter collectors, and legislate to enable DNA testing to be carried out on captive birds to determine their parentage.
9. Investigate the use of nest boxes in stands of Cypress-pine where hollows have yet to develop. This could provide an opportunity for community groups to become involved.
10. Develop an action plan for the management of the species in Victoria.

#### **Legislative Powers Operating**

##### **Legislation**

**Catchment and Land Protection Act 1994** - provides for the integrated management and protection of catchments and the control of noxious weeds and pest animals.

**Conservation Forests and Lands Act 1987** - provides for the management of public land under the Act, the co-ordination of legislation administered by NRE and for the preparation of codes of practice.

**Crown Land (Reserves) Act 1978** - provides for reserving areas as public land and for making a specific reservation status for existing public land.

**Flora and Fauna Guarantee Act 1988** - provides for the protection of flora and fauna in Victoria through a range of mechanisms including controls over the handling or protected flora.

**Forests Act 1958** - provides for the management of forests, and includes controls over the taking of forest produce.

**Land Conservation Act 1970** - provides for the determination of uses and reservation of Crown Land.

**National Parks Act 1975** - provides for the preservation, protection and management of natural areas and includes controls over taking native flora and fauna from parks.

**Planning and Environment Act 1987** - provides for the protection of native vegetation through the State section, and for regional planning controls in all planning schemes.

**Wildlife Act 1975** - provides for the management of wildlife (vertebrate animals other than fish, and Flora and Fauna Guarantee-listed invertebrates) and includes controls over the handling of protected wildlife. The status of the Major Mitchell's Cockatoo as protected wildlife makes the taking of it an offence under the Act unless an appropriate permit has been obtained.

**Wildlife (Game Regulations) Act 1990** - controls the taking and possession of protected wildlife declared as game species.

##### **Licence/permit conditions**

A permit for research involving Major Mitchell's Cockatoos, for handling the species, whether dead or alive, or for handling remains of the bird, must be obtained from NRE. A permit is also required for any work conducted within a conservation reserve.

Permits will be issued only if the proposed work is in accordance with the conservation objectives outlined within this Action Statement and are sympathetic to the conservation of the species.

An annual licence issued by NRE is available to keep Major Mitchell's Cockatoos. NRE will not generally authorise applications to collect specimens of this species from the wild.

##### **Consultation and Community Participation**

NRE officers regularly talk with landholders in north-west Victoria who have areas of native

bushland to discuss its value for species conservation.

Numerous interest groups have been consulted during the preparation of this Action Statement.

These groups should be encouraged to participate in this program by submitting records or observations on the species, as well as by reporting any illegal or suspicious activities to the Department of Natural Resources and Environment.

## Implementation, Evaluation and Review

The Flora and Fauna Manager in the North West Region is responsible for the overall implementation of this action statement. The Mallee Ecosystems Coordinator in Mildura is responsible for the implementation of the management actions and the evaluation of their effectiveness.

Evaluation of the proposed actions should occur annually. The results of monitoring will determine how successful the actions have been and will form the basis of protection works.

This Action Statement should be reviewed by 2003.

## Contacts

### Management

Mallee Ecosystems Coordinator, Department of Natural Resources and Environment, Mildura

Flora and Fauna Guarantee Officer, NRE Horsham.

Wildlife Officer, NRE Mildura and Horsham.

### Biology

I. Rowley, Division of Wildlife and Ecology, CSIRO, Midland, WA.

G. Chapman, Division of Wildlife and Ecology, CSIRO, Canberra.

### Personal communications

P. Menkhorst, Flora and Fauna Program NRE.

D. Moy, NRE Mildura.

F. Noelker, (deceased) Chairman Wyperfeld National Park Advisory Committee.

I. Sluiter, Oygris Ecological Research Pty Ltd, Mildura.

## References

- Emison, W. B., Beardsell, C. M., Norman, F. I., Loyn, R. H. & Bennett, S. C. (1987) *Atlas of Victorian Birds*. Department of Conservation and Environment and the Royal Australasian Ornithologists Union: Melbourne.
- Forshaw, J. M. & Cooper, W. T. (1981) *Australian Parrots*. Second Edition. Lansdowne Press: Melbourne.

Higgins, P. J. [ed.] (1999) *Handbook of Australian, New Zealand and Antarctic Birds. Vol. 4: Parrots to Dollarbird*. pp: 154-163. Oxford University Press: South Melbourne.

NRE (1999a) *Atlas of Victorian Wildlife*. (electronic fauna database). Department of Natural Resources and Environment, Victoria.

NRE (1999b) *Threatened Vertebrate Fauna in Victoria - 1999*. Department of Natural Resources and Environment, Melbourne.

Paton, D. (1996) *Overview of the impacts of managed and feral honeybees in Australia*. Invasive Species Program. Australian Nature Conservation Agency: Canberra.

Pizzey, G. & Knight, F. (1997) *The Graeme Pizzey and Frank Knight Field Guide to the Birds of Australia*. Angus & Robertson: Sydney.

Rowley, I. & Chapman, G. (1991) The breeding biology, food, social organisation, demography and conservation of the Pink Cockatoo or Major Mitchell's Cockatoo (*Cacatua leadbeateri*), on the margin of the Western Australian wheatbelt. *Australian Journal of Zoology* 39: 211-61.

SAC (1995) Final Recommendation on a nomination for listing: *Cacatua leadbeateri* Major Mitchell's Cockatoo (Nomination No. 367). Flora and Fauna Guarantee, Scientific Advisory Committee. Department of Natural Resources and Environment: Melbourne.

Wouters, C. (1993) *River Red Gum die back in the lower Wimmera River Catchment*. Department of Conservation and Natural Resources, East Melbourne.

Compiled by Walker, I. S., Sluiter, I. R. K., & Hawker, P, Department of Sustainability and Environment, North West & South West Regions.

Further information can be obtained from Department of Sustainability and Environment Customer Service Centre on 136 186.

Flora and Fauna Guarantee Action Statements are available from the Department of Sustainability and Environment website: <http://www.dse.vic.gov.au>

This Action Statement was first published in 1999 and remains current. This version has been prepared for web publication. It retains the original text of the action statement, although contact information, the distribution map and the illustration may have been updated.

© The State of Victoria, Department of Sustainability and Environment, 2004

Published by the Department of Sustainability and Environment, Victoria. 8 Nicholson Street, East Melbourne, Victoria 3002 Australia

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

ISSN 1448-9902