DEPARTMENT OF
SUSTAINABILITY AND ENVIRONMENT

Flora & Fauna Guarantee Action Statement

#33

This Action Statement was first published in 1992 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.

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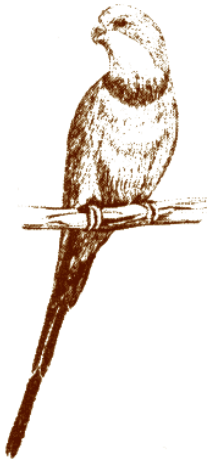
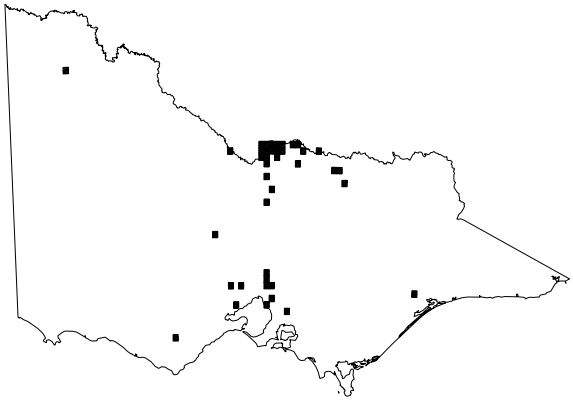
Victoria
The Place To Be

Superb Parrot

Polytelis swainsonii



Superb Parrot *(Polytelis swainsonii)*



Distribution in Victoria (DSE 2002)

Description and Distribution

The Superb Parrot (*Polytelis swainsonii* Desmarest 1826) is a medium-size parrot with a long tail extending to nearly twice the length of the body (400 mm total length including a 260 mm tail). General plumage of the male is brilliant green with yellow-green underparts. Forehead, throat and cheek patches are yellow with a crescent of scarlet across the throat. The female is green with a dull bluish-green face. Both sexes have a yellow iris and coral red bill. Immatures resemble the adult female, except that the iris is pale brown and young males are a slightly brighter green (Forshaw & Cooper 1981).

The Superb Parrot occurs in eastern inland New South Wales and north-central Victoria (Blakers, Davies & Reilly 1984). The total population is estimated to be several thousand birds (Webster & Ahern 1992). In Victoria, its range has contracted from south to north, where recent records are restricted to a narrow corridor of the Murray Valley between Echuca and Yarrawonga.

Superb Parrots nest in forests and woodlands in the area of New South Wales known as the 'south-west slopes', bounded to the east by Cowra, Rye Park and Yass, and to the west by Grenfell, Young, Cootamundra and Coolac.

Host trees include various box species and Blakely's Red Gum (Eucalyptus blakelyi), as well as River Red Gum (Eucalyptus camaldulensis). Nesting also occurs in the plains region further to the west and south-west, where the majority of nests are confined to the riverine woodland along the Murrumbidgee, Edward and Murray rivers. Within the Murray-Riverina, nests are typically located in hollows of large, mature, healthy River Red Gums possessing a large number of spouts, but some nests also occur in dead trees. Nests may be solitary, or clustered in one or several trees close to a watercourse and within about 9 km of the box woodland used for foraging (Webster 1988).

Nesting occurs between September and December with a general dispersal north from Victoria after the breeding season.

The female remains at the nest throughout incubation and until the chicks are well developed, while the male collects food and brings it to her (Webster 1988).
Food items are mainly flowers, fruits and seeds, particularly those seeds that are at the doughy stage. Forage species include the canopy trees, particularly Black Box (E. largiflorens) and Yellow Box (E. melliodora). A common parasite of these box species, Box Mistletoe (Amyema miquelii) and insect parasites such as lerps (Psyllidae) are eaten. Understorey species sought for foraging include Common Wallaby-grass (Danthonia caespitosa), numerous wattle species (e.g. Acacia acinacea, A. dealbata), the acacia parasite Grey Mistletoe (Amyema quandang), Pale-fruit Ballart (Exocarpos strictus) and introduced plants including cereal grains (especially spilt grain), barley-grasses (Critesion spp.) and Annual Veldt Grass (Ehrharta longifolia).
The number of Superb Parrots returning to Victoria each year is not known, but CNR staff believe it may be as low as 100 breeding pairs (Davidson & Chambers 1991). Barmah State Park/ State Forest contains the only locations in Victoria where the Superb Parrot is known to still breed (Webster 1991), with sixteen nest trees having been recorded (Davidson and Chambers 1991). These trees are distributed in three general locations, however observed movements of parrots during the breeding season, as well as observations of adult birds feeding fledglings, strongly suggest that there may be additional nests within Barmah Forest.

Conservation Status

Current Status

DCE (1991)	Vulnerable
Garnett (1992)	Vulnerable (Aust)

The Superb Parrot has been listed as a threatened taxon on Schedule 2 of the Flora and Fauna Guarantee Act 1988.

Reasons for Conservation Status

In its Final Recommendations, the Scientific Advisory Committee (1991) determined that the Superb Parrot is:

- in a 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.

Garnett (1992), in attributing 'vulnerable' status to the species, considers the national population to have possibly been declining at more than 1% per year for the last 10 years, in a habitat 'that has been extensively cleared and degraded and is still deteriorating'. There has been a severe contraction of the parrot's range in Victoria and, without sound management action, the species appears likely to lose its breeding status in Victoria.
The effects upon the Superb Parrot of timber harvesting and silviculture within riverine forests are poorly understood, however processes likely to grossly disturb or change the forest near nest trees, or likely to lead to the removal of old trees with hollows, must be seen as potentially threatening to the species.
Much of the natural box woodland foraging habitat adjacent to Barmah Forest has been cleared for agriculture, with mere remnants along roadsides providing tenuous yet critical links with riverine nesting habitat. Despite recent clearing controls, many chronic degrading processes continue to destroy this box woodland.

Major Conservation Objectives

- To protect and maintain the Superb Parrot in the wild.
- To increase the size of the Superb Parrot population in Victoria to 500 breeding pairs within 20 years.
- To ensure the continued availability of suitable nest trees.
- To increase the existing area of potential foraging habitat, i.e. Black Box and Yellow Box woodland within 6 km of and linked to the Murray riverine forest between Barham and Yarrawonga. Priority will be given to regeneration programs adjacent to the Barmah Forest that:
  - fill in gaps in existing corridors;
  - connect blocks of existing habitat; and
  - create new corridors and foraging habitats.

Management Issues

The Superb Parrot occurs across Victoria and New South Wales, and therefore the conservation effort needs to be co-ordinated between the State administrations. New South Wales has a major responsibility as the population is predominantly centred in that state. The potential recovery rate of the Victorian population is closely linked to the survival prospects of NSW-based populations, with which genetic interchange probably occurs.
In Barmah Forest, nest trees used by the parrots occur in State Park and State forest managed (among other things) for timber products and grazing. Nest trees are typically large and old, with numerous hollows and therefore generally low commercial timber value. However, adjacent or nearby trees may be merchantable and hence subject to logging. Also, silviculture programs for forest regeneration aim to remove many such old trees. With so few known nest trees in Victoria, it is essential that all are afforded a biologically conservative minimum level of protection from disturbance or destruction by commercial forest operations.
In a draft management plan prepared collaboratively for the National Parks and Wildlife Service of NSW and the Flora and Fauna Branch of the Department of Conservation and Natural Resources (CNR), Victoria, Webster & Ahern (1992) recommend establishing a 100 m buffer around each nest tree to exclude logging and silviculture all year round.
It is also important to maintain the integrity of nest colonies (clusters of nest trees). Most Superb Parrot nests throughout the species' range are within identifiable colonies (Webster 1988) and population recovery is most likely to emanate from existing nest colonies or individual nest trees (Webster &

Ahern 1992). To protect nest trees from logging or silviculture, planning needs to focus on nest colonies as the units of management so as to maximise habitat security and social cohesion within the colony.
Another major management issue is to provide future box woodland foraging habitat for the Superb Parrot. Webster (1988) detailed the need for suitable foraging areas to be available within about 9 km of nest sites. In Victoria, the parrot's main foraging areas are now reduced to remnant woodlands on roadsides, or remnant blocks in private ownership managed for stock shelter and grazing.
Managing grazing of box woodland areas within Barmah Forest may also be relevant. These and other minor issues are discussed by Webster & Ahern (1992).

Ecological Issues Specific to the Taxon

Clearing box woodland and its associated shrubs, and displacing native grasses and forbs, appears to have dictated the Superb Parrot's successive abandonment of traditional breeding areas. The parrot avoids open areas on foraging flights, hence simple fragmentation of the habitat can be devastating.
Grazing domestic stock on public and private lands throughout the range of the Superb Parrot could exclude available forage, either by direct removal or by repeated disturbance to feeding birds.
Superb Parrot nest trees tend to be close to watercourses (Webster 1988). However, it is not yet clear whether this reflects an ecological requirement or is the result of past forest management and harvesting practices.
The species is faithful to traditional nest sites (Webster 1988), which implies that harvesting nest trees and altering the near environs may be a conservation issue.
If disturbed by human activity near the nest, the Superb Parrot may display agitation and avoid entering the nest hollow (Webster 1988). It is therefore important to avoid disturbance at known nest sites during the breeding season.
Egg incubation appears to be highly synchronised amongst the population, suggesting that any disruption to breeding is unlikely to be compensated by the production of a second clutch.
The list of forage species utilised by Superb Parrots is diverse, but the relative importance of any item is not understood. A number of plant species described as favoured forage plants in NSW are listed as rare or depleted in Victoria (Gullan, Cheal & Walsh 1990) and this may have some significance for parrot movements within this state.
Geographic and ecological habitat restriction, together with the small remaining number of discrete breeding colonies, render the Victorian Superb Parrot population increasingly vulnerable to catastrophic random events such as bushfire, epidemic or inappropriate logging or silvicultural practices.

Wider Conservation Issues

Red Gum forest management, since the late 1890s when control over exploitation was introduced, has taken the form of a selection harvesting system. It will be possible to maintain populations of Superb Parrots (and other arboreal residents) provided mature and potentially mature forest habitats are conserved. Proposed silvicultural treatments that enhance seedling establishment but destroy mature trees are a potential threat to Superb Parrots. A forest management strategy is needed that adequately provides for the needs of wildlife species dependent upon large old trees.
Box woodland habitats are poorly represented in conservation reserves and only small and degraded remnants survive. Improved protection, management and rehabilitation of this habitat for the Superb Parrot will enhance the conservation of a number of threatened species including Grey-crowned Babbler (Pomastomus temporalis), Bush Thick-knee (Burhinus magnirostris) and Squirrel Glider (Petaurus norfolcensis).
Protecting remnant box woodland and a program for revegetating the agricultural landscape adjoining the forest is consistent with the regional salinity management plan for controlling watertable levels. It is now widely recognised that our agricultural landscape is over-cleared. More native vegetation will provide additional benefits for agriculture as shelter belts to reduce climatic stress on crops and stock, and provide some natural control of agricultural pests.
Unnatural flooding regimes within Barmah Forest, resulting from flood mitigation or forest management activities, may be expected to adversely affect forage availability, timing of breeding or even the suitability of nest sites for the Superb Parrot.

Social and Economic Issues

The Superb Parrot can be protected within the framework of recent land classification decisions, industry strategies and land-use policies. There will be small additional short-term impacts for timber producers, while landholders stand to benefit.
The Land Conservation Council (1985) recommended creating a number of parks along the Murray River that include potential nesting habitat. It sought to phase out grazing and logging from these areas. The Government did not accept this aspect of the recommendations, so grazing and logging remain in the established Barmah State Park. Only two nests have so far been located in State Park.
The Timber Industry Strategy (1986) stated that past extracts of wood products had not been limited to sustainable levels and that harvesting and silvicultural practices should be environmentally sensitive. Licence allocations have since decreased, but the adequacy of the proposed harvest prescriptions is speculative because the dimensions of habitat buffers are untested. Some further reduction in harvest area may ensue, but this will be minimal and the impact will be offset by productivity gains, improved harvesting practices, and product marketing.
CNR is developing both a Barmah Management Plan and a Mid-Murray Forest Management Area Plan, each of which must provide opportunities for public consultation. The plans will address prescriptions for harvesting timber and minor forest produce, managing grazing, and zoning for recreation.
Greater attention may need to be given to a strategy for sustaining older age-classes of River Red Gums throughout the forest.

The State Conservation Strategy of 1987 directed that 'Remnant native vegetation will be protected on linear reserves including roadsides...and the revegetation of these areas will be encouraged. Management plans for the conservation of linear reserves will be developed by local and State Government'. Such action has the potential to aid recovery of the Superb Parrot in Victoria.

Improved management of linear reserves for habitat purposes may result in :

- A reduced area for grazing-however productivity gains directly resulting from improved shelter may offset this reduction.
- Reduced Government income from Crown Land rentals, but better conservation prospects.
- Increased fencing costs; new fences erected to provide protection from wandering stock on roadsides or new exclusions from previously licensed areas.
- Transfer of firebreaks from roadsides to productive land. There is potential to incorporate firebreaks into productive management systems, e.g. sowing the strip to a crop and harvesting for hay each spring. Areas dominated by invasive weeds often present the greatest fire risk, so replacement of this vegetation with a native community should not increase the fire hazard.

Weed invasion: disturbance of natural environments is often a precursor. Limiting vegetation disturbance on road reserves may therefore assist the pest plant control program.

While there is strong competition for funding under Government revegetation programs, there is broad scope within the critical range of the Superb Parrot for co-operative habitat retention and restoration projects involving landholders, local and State government and voluntary organisations.

All planning schemes were amended in November 1989 to introduce a requirement for a permit to remove, destroy or lop native vegetation in Victoria. The local impact of this amendment (and subsequent amendments) may not be great, because Councils have been reluctant to enforce the controls. Within the critical range of the Superb Parrot, too, there is little private habitat left and roadside tree cover has already been fragmented and reduced to only one-third of its original extent.

The illegal taking of Superb Parrots from the wild for aviculture remains a concern, as a pair of birds fetches about $250 in the trade. Nest hollows have been cut open to take young birds, thus destroying sites which would otherwise serve many generations.

The Superb Parrot will feed on spilt grain; this results in occasional accidental road-kills and may make the species susceptible to illegal trapping.

There are no major social and economic issues influencing achievement of the conservation objective. There is the potential for some small impacts on landholders and some potential benefits.

Management Action

Previous Management Action

Co-operation with NSW: An interdepartmental steering committee (ANPWS, NSW-FC, NSW-NPWS, Vic-CNR), established in 1985, initiated a Superb Parrot study program. Based on the field work conducted in the 85/86 and 86/87 breeding seasons, a draft management plan was prepared in 1989 and redrafted in 1992 following inter-departmental comment.

Protection of birds: Protection for the Superb Parrot in the wild was enhanced with the proclamation of the Wildlife Act 1975. This provided for regulation of the avicultural trade and prohibited the capture of wild specimens. Where wildlife causes serious agricultural damage or financial loss, a permit for destruction may be sought. Vigilance for the detection of offences against the Act is ongoing.

Protection of nest trees: Timber harvesting in Barmah Forest is now subject to the Code of Forest Practices, requiring coupe plans for scheduled harvesting to be prepared up to three years in advance. This may assist in detecting and protecting nest trees.

Benalla Region has drawn up exclusion zones to protect known nest trees in discrete colonies, on a year round basis. The proposed zones provide for a 100 m buffer around each nest tree.

Monitoring: Limited monitoring of the Superb Parrot population in Barmah Forest has been carried out by CNR staff and contract teams during recent breeding seasons.

Revegetation of box woodland: The Shire of Nathalia has been assisted in the development of a Roadside Management Plan. A steering committee prepared a policy document, and an inventory for assessment of conservation value has been completed by the Nathalia Tree Group with funding support from the Murray-Darling Basin Commission.

During 1991 CNR assessed remnant vegetation (including unused roads, public land and private blocks) as foraging habitat to develop a vegetation management strategy. Remote sensing provided base plans for this work. The vegetation management strategy (Davidson & Chambers 1991) was circulated to, and discussed with, the local community of the Picola-Yielima-Bearii area, and with local council and conservation groups. The Region has now begun implementing the strategy , in collaboration with Land for Wildlife and Save The Bush programs.

Intended Management Actions

Co-operation with NSW: Seek the adoption of a joint Superb Parrot management plan by NSW and Victoria as a vehicle for achieving consistent and effective management throughout the range of the species.

Protection of birds: Close access to camping sites adjacent to nest trees along the river during the breeding season.

Maintain CNR vigilance, and encourage community assistance, to deter illegal activities that directly threaten wild Superb Parrot populations, especially during the breeding season.

Protection of nest trees: Implement exclusion zones drawn up for all known Superb Parrot nest colonies.

Maintain and manage the zones identified in the Barmah Forest Plan and MidMurray Forest Management Plan for protection of the currently known Superb Parrot nesting sites.
Ensure that any additional nest trees discovered in the future are immediately afforded 100 m buffers from which logging and silviculture are excluded (see below). Where two or more nest trees occur within 200 m of each other (that is, they form a colony), the outermost buffer boundaries should be rationalised to form a single exclusion zone.
Conduct further surveys within Barmah Forest during the breeding season to locate additional nest trees.
Contribute appropriate advice to forest wood utilisation plans including:

- locations of nest trees,
- buffer or exclusion zone requirements, and
- individual trees or stands to be protected from harvesting as potential long-term (future) nest sites. To avoid disclosure, these areas should not be identified as Superb Parrot sites in particular published plans, but as general conservation zones.

Monitoring: Monitor the use of known foraging sites from August to December each year and continue to seek incidental reports on additional foraging locations. Monitor known nests and investigate foraging and dispersal patterns. Continue to compile details of the Superb Parrot's diet.
Review of Buffers: Review the need for Superb Parrot buffers and exclusion zones after 10 years, or if the total area of buffer zones exceeds 200 hectares, whichever occurs first.
Revegetation of box woodland: Continue to implement the Picola-Yielima-Bearii vegetation management strategy.
In addition, wherever possible:

- Assist municipalities along the Murray River to develop roadside management plans.
- Provide advice on appropriate revegetation techniques to land managers.
- Collect seed from indigenous forage species in sufficient bulk to supply the demand for revegetation, without affecting natural regeneration.
- Provide assistance and incentives for the development of foraging habitat (e.g. grants for fence construction).
- Review leases and licences for Crown Land in the area, including unused road reserves, for their potential to develop Superb Parrot foraging habitat. Revoke licences or adjust licence rentals as appropriate.

Other Desirable Management Actions

Research: Further define the ecological requirements of the Superb Parrot, particularly the relative importance of preferred food items and the effect of grazing on foraging areas.

Critical Habitat: Declare foraging areas and nest sites that support (or are likely to support) populations of Superb Parrots as critical habitat under the Flora and Fauna Guarantee Act 1988.

Legislative Powers Operating

Species Protection

The Wildlife Act 1975 and Wildlife Regulations 1992 permit the keeping of captive-bred stocks of Superb Parrot under a range of private and commercial Wildlife Licences. All licence holders are required to maintain records of all acquisitions and disposals. Trapping of wild birds or collection of biological material must be in accordance with permits issued under this Act.
Flora and Fauna Guarantee Act 1988 provides for the protection of flora and fauna in Victoria and the declaration of critical habitat.

Habitat Protection

Nest trees are located on public land managed under provisions of the Forests Act 1958 and the National Parks Act 1975.
Conservation Forests and Lands Act 1987 through the Code of Forest Practices for Timber Production 1989 provides for the adoption of harvesting prescriptions that will protect Superb Parrot nesting habitat. Foraging habitat is subject to clearance controls under the planning schemes of the various municipalities as provided under the Planning and Environment Act 1987.

Licence/Permit Conditions

CNR will not support applications to clear box woodland communities from potential foraging sites within relevant municipalities.

Consultation and Community Participation

Webster (1988) interviewed relevant members of the Royal Australasian Ornithologist Union and the Bird Observers Club, and requested, via local newspapers, private records of Superb Parrot sightings. His report was published by ANPWS. CNR again sought public input in 1989. Reports of incidental sightings will continue to be encouraged from contributors to the CNR Atlas of Victorian Wildlife database.
The Superb Parrot Inter-departmental Steering Committee has been responsible for drafting management recommendations. Management plans prepared for the Barmah Forest/Park and Mid Murray Forest Management Area have had or will have statutory public exhibition periods and opportunities for public input.
There was wide community representation on the steering committee for the Shire of Nathalia's roadside management plan. The roadside conservation inventory was conducted by volunteers.
The vegetation management strategy has been individually presented to each participating landholder (all who were approached are participating) and a public meeting was held in February 1992 to discuss and initiate the strategy.

Implementation, Evaluation and Review

This action statement provides a program to protect and expand Superb Parrot habitat over the next 10 years. The draft management plan for conservation of the Superb Parrot in New South Wales and Victoria (Webster & Ahern 1992), although not yet officially adopted, should be consulted for longer-term management considerations.
The total area occupied by buffer zones will be reviewed as outlined under Intended Management Actions.
The Regional Manager, CNR Benalla, will be responsible for implementing the program. Progress will be reviewed annually by the Flora and Fauna Branch.

Contacts

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Further information

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

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