

Flora & Fauna Guarantee Action Statement

#64

This Action Statement was first published in 1995 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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Spotted Bowerbird *Chlamydera maculata*



Spotted Bowerbird (*Chlamydera maculata*)
(Illustration by John Las Gourgues)



Distribution in Victoria (DSE 2002)

Description and Distribution

The Spotted Bowerbird (*Chlamydera maculata*, Gould 1837), ranges in size from 270 to 310 mm, the male being slightly larger than the female. The wings and tail are brown or black with buff spots on the ends of all feathers, giving the bird its common name.

The underparts are a pale, brown-grey, mottled buff cream, grading to plain cream over the belly. The head is buff streaked with darker brown. The male has a brownish hind neck with an erectile tuft of vivid lilac pink plumes. The female either does not possess these plumes or has only a few pink feathers.

Bowerbirds feed on fruits, seeds, berries and insects and their larvae. Cooper and Forshaw (1977) reported birds in north-western Victoria feeding on ripe berries of the introduced Pepper Tree (*Schinus molle*). The Spotted Bowerbird has been seen with other fruit-eating and berry-eating birds in horticultural crops.

The Spotted Bowerbird, also called the

Mimic Bird, can imitate the calls of other birds as well as a variety of everyday sounds (Cooper and Forshaw 1977). It has a penetrating, drawn out, rasping call for contact and alarm.

The male Spotted Bowerbird constructs an 'avenue' type of bower, consisting of thin parallel walls of finely interwoven grasses and twigs usually orientated north-south on the ground under sheltered shrubbery or overhanging branches. The male decorates the bower with numerous objects. When selecting bower ornaments he favours white, grey, pale green, amber and mauve objects, but apparently rejects red, yellow and blue objects, although Favaloro (1940) suggested that red and blue objects are also favoured ornaments.

Borgia and Mueller (1992) suggested that Spotted Bowerbirds prefer decorations that match their reddish-pink nuchal crest, and believed bower quality affects mate choice decisions by females.

Male Spotted Bowerbirds tend, watch and sing over their bowers during almost any

month of the year, although activity is more pronounced prior to breeding between July and December (Cooper and Forshaw 1977). Following mating, females construct nests of a loose saucer of dry twigs lined with finer twigs, usually located some distance from the bower in shrubbery 2 to 10 metres high (Readers Digest 1976).

Mating takes place in the bower after elaborate courtship displays by the male entice the female into the bower. Males may mate with any number of females. A detailed description of the Spotted Bowerbird courtship can be found in Cooper and Forshaw (1977).

Following mating, females leave to nest and rear their young. Two grey to greenish eggs are usually produced by the female. When not breeding or attending bowers, Spotted Bowerbirds range locally, singly or in small groups. Spotted Bowerbirds are endemic to Australia. They inhabit the dry inland of eastern Australia, where they nest and breed in woodland communities and associated understoreys near watercourses. Their range extends from northern Queensland through western New South Wales and historically into north-western Victoria and neighbouring South Australia along the floodplain associated with the Murray and Darling Rivers. Although common throughout most of its range, the bird has declined or become extinct in the far south, i.e. South Australia, Victoria and southern New South Wales (Condon 1969, Morris et al. 1981).

In Victoria, the species has only been recorded in a few locations in the extreme north-west (which is at the southern limit of its range) but was said to be "very common" by Favalaro (1940). Only a few sporadic sightings have been reported from north-western Victoria since 1942, with the most recent being a breeding record near Robinvale in 1979. Sightings in the late 1960s have occurred at Boundary Bend and at Murray-Kulkyne Regional Park. These sightings were all in Black Box (*Eucalyptus largiflorens*) woodlands.

Conservation Status

Current Status

CNR (1995) Endangered in Victoria

The Spotted Bowerbird is listed as a threatened taxon under the Flora and Fauna Guarantee Act (1988).

Reasons for Conservation Status

In Victoria the Spotted Bowerbird is considered endangered because of its extreme rarity, low abundance and limited distribution, with only one breeding record since 1976 (Emison et al. 1987). Favalaro (1940) noted that Spotted Bowerbirds had formerly been very common along the Murray River from the South Australian border in the west to Kerang in the east.

The absence of recent sightings suggests that the species may now be extinct in Victoria. Reasons for the species' decline in the state are likely to include illegal shooting and poisoning and predation by Cats and Red Foxes. The widespread clearing of its preferred habitat of Cypress-pine-Buloke and Belah woodlands in the last 100 years and widespread deterioration and loss of Black Box Woodland

have also occurred during the same period. Furthermore, much of the remaining woodland habitat is unsuitable because of partial or total lack of regeneration or because the understorey is too sparse, primarily as a result of overgrazing.

Fragmentation and degradation of these remnant habitats are ongoing threats to the habitat of the species. The decline of Spotted Bowerbirds has also been observed in southern New South Wales (John Brickhill, pers. comm., Morris et al. 1981). Shooting may well be an important factor in the decline of the Spotted Bowerbird in Victoria, with the widespread existence of orchards and vineyards where the species was previously known to occur. In the past, the species' habit of feeding on fruit crops resulted in indiscriminate shooting by orchardists. For example, Favalaro (1940) states that as many as 30 birds were destroyed each week at one homestead near Mildura. Other processes likely to have contributed to the decline of the Spotted Bowerbird and its habitat include:

- persistent grazing by domestic stock, kangaroos and rabbits,
- inappropriate fire regimes,
- clearing for agriculture,
- clearing of understorey vegetation by removing timber, and
- habitat simplification and fragmentation.

In its final recommendations, the Scientific Advisory Committee (1994) has determined that the Spotted Bowerbird is:

- in a demonstrable state of decline, and
- rare in terms of abundance and distribution.

Major Conservation Objective

The major conservation objective is to determine whether Spotted Bowerbirds still occur in Victoria. It is also desirable to maintain and enhance suitable habitat so that any populations recorded in the future can be sustained in the long term.

In the event of the Spotted Bowerbird being rediscovered in Victoria, CNR should make efforts to ensure that:

- any population found in Victoria is offered all possible protection measures, and
- the surrounding and nearby habitat is protected and rehabilitated if necessary.

Management Issues

Ecological Issues Specific to the Taxon

Very little is known regarding the ecological requirements of the Spotted Bowerbird, or of the original riverine ecosystem within which it occurred in Victoria. It is known to be adapted to dry, sparsely vegetated habitats and to frequent dry, open, grassy woodlands and inland riverine vegetation in eastern Australia.

Although bowerbirds are known to feed on fruits, seeds, berries and insects and their larvae, the importance of various dietary items, and the implications of changes in their availability, are not known.

The reliance of the species on undergrowth for bowers and nests means that the loss of understorey shrubs and grasses through overgrazing, clearing and fire protection works represents a threat to its survival. Simplification of the ground

layer decreases the amount of available foraging habitat, and may also affect bower construction and success. Lack of sufficient undergrowth for bower construction is also likely to increase the pressure of predation by Foxes and Cats. Activities which destroy or modify habitat have a direct impact on the success of conserving the species or its successful expansion back into the state. Victoria represents the southern limit of the species' range in Australia. It is considered secure in New South Wales and Queensland but extinct in South Australia (Garnett 1992). In the late 1980s there were Spotted Bowerbirds at Euston, across the border from Robinvale (P. Robertson, pers. comm.). Liaison with the relevant land managers in adjoining states to conserve any neighbouring populations is important in ensuring that the potential for recolonisation from those populations is maximised.

Wider Conservation Issues

The Spotted Bowerbird is one of a suite of woodland species that are threatened in north-western Victoria, including the Beaked Gecko (*Rhynchoedura ornata*); White-browed Treecreeper (*Climacteris affinis*) and Carpet Python (*Morelia spilota variegata*). The primary causes of decline in these species have been extensive clearing for agriculture and continuing degradation of suitable remaining habitat. Management of Spotted Bowerbird habitat in Victoria will assist conservation of these other species. Research and recommendations for management of Spotted Bowerbird habitat in Victoria will also have application to their conservation in other states, particularly South Australia and New South Wales.

Spotted Bowerbirds occur in riverine woodlands often adjacent to Cypress-pine-Buloke and/or Belah woodlands. Protection of the species' preferred habitats will maintain examples of these communities. Environmental education associated with the recovery of these communities provides for increased community awareness of general flora and fauna issues, including the management of rare and threatened species.

Social and Economic Issues

Social and economic issues associated with achieving the conservation objectives of the Spotted Bowerbird Action Statement are relatively minor.

The major potential issues for the conservation of the Spotted Bowerbird which conflict with human use of land include horticulture, wood collection, grazing, fire protection works and recreation in riverine environments. Actions to conserve the Spotted Bowerbird will affect these activities to varying degrees, depending on the awareness of land managers and the public to the conservation needs and their willingness to modify actions which affect the birds.

Issues Involving Private Land and Landholders

While habitat restoration and regeneration may reduce the area available for grazing by stock, the areas involved are likely to be small and mostly coincide with areas of high conservation value. The Land for Wildlife program is an appropriate vehicle for increasing cooperation and

awareness needed for habitat conservation on private land. The Land Protection Incentive Scheme (LPIS) has also proved most useful in fencing off a number of key areas of vegetation from grazing. Efforts (other than exclusion areas) to reduce the impact of grazing by rabbits (and kangaroos where they are in excessive numbers) will also benefit local landholders.

In the unlikely event that birds become prevalent in horticultural areas, landholders will need to be aware of their obligations to conserve this protected species rather than poison and shoot it. These issues can only be addressed by continuing consultation and extension.

Issues Involving Public Land and the Broader Community

Ecological burns that involve changes to existing fire prevention works will need to accommodate any perceived increase in fire risks in the region. Reductions in areas available for wood collection need to be accompanied by public awareness campaigns and may result in higher collection rates in other areas. There may be some minor restrictions on recreation activities (e.g. camping, four-wheel-driving), particularly in riverine environments. Such measures to protect potential habitat will benefit other floodplain improvement works, including track rationalisation, protection of river bends, and revegetation programs.

Emison et al. (1987) attributed the decline of the Spotted Bowerbird in Victoria to a combination of factors, including Cat and Red Fox predation. The importance of cats as predators of native fauna is becoming increasingly recognised. More intensive settlement of rural areas and the establishment of tips has resulted in an increase in local Cat populations. Control of domestic cats will need to involve the community becoming more responsible for their pets (i.e. confining them at night, desexing). The implementation of Cat control legislation by local governments will also be potentially beneficial. The Spotted Bowerbird is but one of a suite of species that will benefit from a lessened predation pressure by Cats.

Management Action

Previous Management Action

Little action has occurred in the past specifically for the conservation of Spotted Bowerbird. The Atlas of Victorian Wildlife Database (CNR) provides localities for all the known Victorian populations.

Reservation and subsequent removal of grazing from a number of patches of riverine woodlands with adjacent Pine-Buloke and Belah woodlands, such as has occurred at Hattah-Kulkyne National Park and Murray-Sunset National Park, has secured large isolated blocks of habitat and removed a major factor limiting regeneration of the vegetation. Revegetation of Pine-Buloke woodlands has also occurred in the former park by both hand planting and direct seeding methods. In both Parks the numbers of grazing animals are constantly monitored, with rabbit numbers kept at levels below which they pose a threat to the flora values of the area.

At Hattah-Kulkyne National Park kangaroos have been culled from a fenced area of the park (5680 hectares) in an effort to further enhance the vegetation and provide suitable habitat for species such as Spotted Bowerbird.

Intended Management Action

The following actions will be undertaken by CNR's North-West Area (Mildura).

Liaison

Maintain liaison with government agencies in adjoining states to monitor the presence of any neighbouring populations or suitable habitat that could represent a possible source of recolonisation for Victoria.

Extension

Prepare an information pamphlet explaining the plight of the Spotted Bowerbird, the reasons for its decline and the need for its protection. The importance of reporting any sighting of the species should be emphasised. Prepare information for inclusion in Land for Wildlife and Landcare extension material.

Conduct a specific public awareness effort in the Mildura area over two years to organise local groups (schools, field naturalists, bird observers clubs) to actively search for the bird. All locality records would be checked and habitat examined.

Research

Until populations are found in Victoria a specific research proposal is premature. CNR (North-West Area, Mildura) will keep abreast of relevant research in NSW and elsewhere. If Spotted Bowerbirds are recorded in Victoria, any research program should:

Establish the current distribution of the species in Victoria and in adjacent parts of New South Wales and South Australia.

Establish the habitat requirements of the species, in particular the nest and bower requirements.

Document the life history parameters: specifically, dispersal patterns and the impact of predators.

Monitor the food availability and impacts of grazing, clearing and fire on feeding, bower construction and nesting.

The Australian Nature Conservation Agency has funded the writing of a Recovery Plan (Research Phase) for Pine-Buloke woodland, which is one of the community types in which Spotted Bowerbirds historically occurred. When finalised, this plan will highlight the need and means for restoration of part of this habitat. As part of the general habitat management, CNR Mildura is to:

Make detailed habitat management recommendations based on the research described above.

Develop revegetation works with a focus on developing suitable habitat for Spotted Bowerbird.

Prevent clearing of the understorey by wood collectors in areas of suitable habitat where Spotted Bowerbirds are historically known to have occurred or where research suggests that birds could re-occur in the future.

Reduce the grazing pressure in woodland habitats to assist in their regeneration.

Continue to provide incentives for habitat restoration on private land through Land for Wildlife and LPIS, and maintain CNR's habitat restoration works on public land.
Monitor the impact of total grazing pressure.

Monitoring

The North West Area, Mildura is endeavouring to restore several examples of broad habitats (floodplains, Pine-Buloke and Belah woodlands etc.) for a suite of rare and endangered flora and fauna including the Spotted Bowerbird. In the course of monitoring rehabilitated remnant woodlands, suitably trained CNR staff will also survey for Spotted Bowerbirds.

Predator Control

If Spotted Bowerbirds are recorded, undertake control programs aimed at reducing Red Fox and Feral Cat numbers. Undertake a public awareness campaign to promote responsible pet ownership. Furthermore support the legislative power of local municipalities under the Domestic (Feral and Nuisance) Animals Act 1994.

Protection

Enforce control over shooting and poisoning under the Wildlife Act 1975 and the Flora and Fauna Guarantee Act 1988

Other Desirable Management Actions

Determine the effects of woodland revegetation works on other woodland flora and fauna.

Determine if re-introduction into rehabilitated habitat is feasible and desirable.

Legislative Powers Operating

Legislation

Wildlife Act 1975: regulates the taking and possessing of wildlife. The Spotted Bowerbird is protected wildlife under the Act.

Vermin and Noxious Weeds Act 1958: outlines responsibility for the destruction of vermin.

Crown Land (Reserves) Act 1988: provides for the reservation of areas of public land.

Domestic (Feral and Nuisance) Animals Act 1994: provides for responsible ownership of dogs and cats and for the protection of the environment.

Flora and Fauna Guarantee Act 1988: provides for the protection of flora and fauna in Victoria and the declaration of critical habitat if so designated.

National Parks Act 1975: provides for the preservation, protection and management of natural areas and includes controls on the taking of flora and fauna from parks.

Forests Act 1958: provides for the protection of all forest produce.

Licence/Permit Conditions

A permit for any research involving Spotted Bowerbird, for handling the species whether dead or alive, or for handling remains of the bird, must be obtained from the Manager, Flora and Fauna Branch. A permit is required from the Director of

the National Parks Service for any work on land administered under the National Parks Act 1975. Permits will only be issued 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.

Consultation and Community Participation

Public awareness efforts need to be initiated to communicate the need for conservation of rare and threatened species such as the Spotted Bowerbird. The need for protection of suitable habitat on both private and public land needs to be emphasised to allow the public to assist where possible. Such participation may be fostered by Landcare groups and the Land for Wildlife Scheme. It is hoped that community groups will assist in the distribution of information about Spotted Bowerbird and its management.

Implementation, Evaluation and Review

CNR's North-West Area Manager 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.

This Action Statement will be reviewed in 1999. However, if information is obtained regarding the occurrence of the species in the state, or its ecological requirements, which would substantially alter the intended management actions, the document will be reviewed earlier.

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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Personal Communications

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