

# Flora & Fauna Guarantee Action Statement

#34

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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## Grey-crowned Babbler *Pomatostomus temporalis*



Grey-crowned Babbler (*Pomatostomus temporalis*)

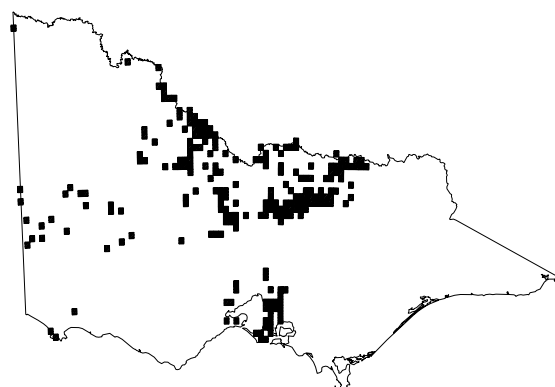
### Description and Distribution

The Grey-crowned Babbler (*Pomatostomus temporalis*) is a distinctive bird, 23-29 cm long, with a curved bill, pale-grey crown, dark face mask, orange-tipped wings, and white-tipped tail. It lives in groups of 2-12 birds, all of which participate in nesting activities and territorial defence.

Babbler groups' home ranges vary from 2-53 ha (Blakers et al. 1984) and increase with increasing group size (Counsilman 1977).

Group size also appears to be related to habitat elements such as the amount of wooded cover and the type of ground layer (Brown et al. 1983, Davidson and Robinson, pers obs).

Grey-crowned Babblers are insectivores that forage partly on the ground and partly on the trunks and branches of trees and shrubs. They prefer rough-barked trees and trees with peeling bark (D. Robinson pers. obs). Family groups build a number of large, domed stick nests in saplings, shrubs or trees, usually some 1-6 m above the ground. These nests are used as dormitories for communal roosting at night. An extra nest is built for breeding.



Distribution in Victoria (DSE 2002)

Adult birds have an average life expectancy of approximately four years (Brown 1987). Young birds stay with the family group for at least one year after fledging and may remain for two or more years. These birds are physiologically capable of breeding but instead act as non-breeding helpers. As breeding spaces become available in the population, some helpers disperse (Brown et al. 1983). Helpers also may disperse to try to establish their own breeding groups (Brown et al. 1983). Helpers contribute significantly to breeding success (Brown 1987), which implies that maintenance of larger groups with higher numbers of helpers will be important for the Grey-crowned Babblers' long-term survival.

Grey-crowned Babblers are widespread throughout eastern and northern Australia (Blakers et al. 1984), and formerly were widespread through much of western, central and northern Victoria (Emison et al. 1987). During this century, however, Grey-crowned Babblers have disappeared from south-western Victoria (Learmonth 1964), and from most of Victoria south of the Great Dividing Range (Pescott 1983, Schulz 1991).

Northern Victoria is the stronghold of extant populations, but here their range has also shrunk, and they are considered much less common than formerly (Harrop 1991, Officer 1991). In addition, Grey-crowned Babblers have apparently disappeared from south-eastern South Australia (author).

They have become less common in parts of the Riverina (Phil Maher pers. comm.), the Pilliga Scrub in northern New South Wales (Harry Recher pers. comm), near Sydney (Hindwood 1943), the ACT (Frith 1969) and some parts of south-eastern Queensland (Battaglene 1989, Schulz 1991). Extant populations are scattered over northern Victoria, from near Murtoa in the west, east to Chiltern, and south to Castlemaine and Longwood. They are most abundant in the region between Longwood and Benalla, the Hume Freeway and the Broken River. An estimated 150 groups (c. 600 birds) occur in this region. Elsewhere in the state there is an estimated total of fewer than 50 groups, all of which appear to be under threat (author, Schulz 1991).

## Conservation Status

### Current status

DCE (1991)      Vulnerable

Grey-crowned Babbler has received the Scientific Advisory Committee's final recommendation for listing as a threatened taxon in Schedule 2 of the Flora and Fauna Guarantee Act 1988.

### Reasons for Conservation Status

The primary cause of the Grey-crowned Babbler's decline has been widespread clearing of its preferred box woodland habitat. For example, in the Northern Plains region, where the largest populations survive, more than 80% of the original wooded vegetation has been cleared (Woodgate & Black 1988). Furthermore, much of the remaining woodland habitat is unsuitable, either because it does not contain the preferred overstorey species or because it is too dense. Most of the remaining habitat that is suitable for Grey-crowned Babblers occurs along roadsides or on private land.

Significant continuing threats to the species are fragmentation and degradation of these remnants (Bennett 1990). Degrading processes comprise:

- persistent grazing by domestic stock;
- tree dieback;
- removal of fallen timber;
- habitat simplification and fragmentation;
- increased levels of predation by feral cats and foxes;
- introduced pasture grass and weed invasion; and
- fire protection works in small remnants such as ploughed and burnt firebreaks by roadsides.

In its final recommendation, the Scientific Advisory Committee (1992) determined that the Grey-crowned Babbler is:

- significantly prone to future threats likely to result in extinction; and
- rare in terms of abundance and distribution.

## Major Conservation Objective

The major conservation objective is to maintain the present natural distribution and increase the number of birds in Victoria to about 2000 in 10 years. There are two actions required:

- to ensure the long-term viability of all large populations (i.e. more than 20 family groups), all of which are within 10 km of another group, and ensure their maintenance; and
- to secure and enhance all potentially viable populations (5-20 groups). A first, important step for both of these is to define the species' ecological requirements in south-eastern Australia.

## Management Issues

### Ecological Issues Specific to the Taxon

Grey-crowned Babblers are communal breeders in which offspring from the previous season and other unrelated birds help to raise the current year's brood. In some populations, breeding success is related to the number of helpers (Brown et al. 1983). Fragmentation and degradation of habitat may diminish a group's breeding opportunities when the habitat is unable to support large groups of birds.

Preliminary results of a study investigating habitat use by Grey-crowned Babblers in the Benalla region indicate that larger groups occur along well-treed roadsides, particularly where there is some woodland vegetation in the adjacent paddocks or where tree-lined roads, creeks or fencelines intersect. Continuing fragmentation of habitat may cause further decreases in breeding success and extinction of small isolated groups. The most significant environmental threat to habitat quality is the loss of large trees in paddocks where there is little or no regeneration due to persistent grazing by cattle and sheep. The loss of large trees is exacerbated by the various dieback processes, including altered drainage patterns, increased salinity, insect attack and soil compaction.

Other threats to Grey-crowned Babbler habitat are the removal of litter and logs along roadsides for fire protection works and firewood. Such simplification of the ground layer decreases the amount of foraging habitat available for Grey-crowned Babblers. Weed invasion by introduced grasses such as canary grasses (*Phalaris* spp.) also reduces the amount of foraging habitat by preventing ready access to the litter layer.

The narrowness of strips of roadside vegetation makes Grey-crowned Babbler habitat vulnerable to events such as fire, insect attack, altered water regimes and weed invasion. Narrow roadsides also make Grey-crowned Babblers more vulnerable to predation by foxes and feral cats. Vehicles can also cause mortalities (Schulz 1991).

Grey-crowned Babblers tend to nest in shrubs or the lower canopy of trees, usually less than 6 m above the ground. There is no regeneration of the shrub and sapling layer on many sites, but where it has occurred it has often been rapidly colonised by Grey-crowned Babblers. This may indicate that structurally diverse vegetation is an important component of the bird's habitat.

Preliminary results of a study investigating habitat use by Grey-crowned Babblers show that sites used by the birds tend to have more small trees and shrubs, more large trees (greater than 70 centimetres diameter at base), sparse grass cover, more ground litter and logs and more large trees in adjoining areas than previously suspected.

On the basis of these results, habitat management on public land will likely entail:

- Controlling grazing to allow shrubs and saplings to regenerate, particularly in paddocks.
- Retaining large logs within the home ranges of family groups.
- Minimising disturbance to the roadside ground layer.
- Revegetating along fragmented roadsides abutting colonies.
- Adhering strictly to native vegetation retention controls, particularly retention of large trees and woodlots near colonies.

Suitable habitat management on private land will be encouraged by directing available financial incentives for fencing and by extension programs.

## Wider Conservation Issues

The Grey-crowned Babbler is part of a suite of woodland species that are threatened in south-eastern Australia, for example, Tuan (*Phascogale tapoatafa*), Squirrel Glider (*Petaurus norfolcensis*), Regent Honeyeater (*Xanthomyza phrygia*), Superb Parrot (*Polytelis swainsonii*), Swift Parrot (*Lathamus discolor*) and Bush Thick-knee (*Burhinus magnirostris*). The primary cause of these species' decline has been extensive clearing for agriculture (Calder & Froud 1987) and continuing pressure on what remains.

Management of Grey-crowned Babbler habitat in Victoria will assist conservation of these other species. Research and recommendations for management of Grey-crowned Babbler habitat in Victoria will also have application to their conservation in other states, particularly in New South Wales.

Grey-crowned Babblers occur across several broad woodland communities, namely Grey Box (*Eucalyptus microcarpa*), Black Box (*E.largiflorens*), Yellow Box (*E.meliiodora*), Red Ironbark (*E.sideroxylon*), Murray Pine (*Callitris glaucophylla*) and Buloke (*Allocasuarina luehmannii*), all of which have been greatly reduced in range (Froud & Calder 1987). Protection of the Grey-crowned Babbler's preferred habitats will maintain examples of all of these communities.

Most of the known groups of Grey-crowned Babblers utilise remnant woodland habitats along roadsides or remnants on private land. In many parts of rural Victoria, roadside vegetation constitutes the largest proportion of remnant native vegetation. Management of Grey-crowned Babbler habitat will assist the broader protection of these remnant roadside communities.

## Social and Economic Issues

There are no major social and economic issues preventing achievement of the conservation objective.

The key issues that need to be resolved relate to revegetation on private land, firewood collection and roadside vegetation management. There are several other areas of potential conflict of lesser importance. Grazing domestic stock within Grey-crowned Babbler habitat is acceptable provided provision is made for the regeneration and survival of trees and shrubs. This can only be achieved through voluntary agreement and financial incentives, (e.g. for fencing). The works required will not have a great impact on any one landholder, but rather will constitute minor changes across the Grey-crowned Babblers' range.

Large logs are an important component of Grey-Crowned Babbler habitat (Davidson & Robinson, in prep.) and should be retained wherever possible. Timber removal is a problem near large towns, where firewood collection significantly reduces the amount of potential foraging habitat. Reducing firewood collection near babbler sites will place increasing pressure on other sources of firewood. Maintaining large logs in Grey-crowned Babbler habitat may provide additional harbour for pest animals such as rabbits and foxes. In addition, many landholders believe that fallen timber is a fire risk. Others think that fallen timber is untidy. If firewood collection is restricted on public land, the value to landholders of growing timber for firewood will increase.

Remnant Grey-crowned Babbler habitat along roadsides is sometimes damaged by fire protection works such as ploughing and burning, particularly through destruction of the litter layer, reduction of woody vegetation and introduction of vigorous pasture grasses and other weeds. Modification of these practices may be needed in those areas where firebreaks bisect good quality habitat (e.g. Violet Town-Nalinga Rd). Other major works, such as the installation of power lines, also cause disturbances to Grey-crowned Babbler habitat. For instance, when power lines are placed they may need to be realigned to minimise the impacts on the quality of Grey-crowned Babbler habitat. These controls could cause conflict with local communities and authorities.

Cats are increasingly recognized as major predators of native fauna. As rural areas become more closely settled and urban subdivisions and municipal tips are established local cat populations will increase. This may cause a decline in the numbers of Grey-crowned Babblers as cats are known predators of this species (Seabrook 1991, P. Maher pers. comm.). In more settled areas (e.g. Mornington Peninsula), cat control has the potential to aid recovery of Grey-crowned Babbler populations. This will require owner cooperation and may be assisted by the passage of the Companion Animals Bill 1991.

Unused roads are an important component of Grey-crowned Babbler territories in northern Victoria, mostly because of remnant trees. Many of these unused roads are grazed under licence. Where this happens within a Grey-crowned Babbler's home range, management of the unused roads should be revised, after consultation with shires and appropriate landholders, to give priority to nature conservation. Such management may lead to rental reduction, licence removal and improved fencing of the unused roads. The cost of fencing should be met by CNR, and maintenance by adjoining landholders.

As traffic is a source of Grey-crowned Babbler mortality (B. Garrett pers. comm.), measures to minimise traffic volume, such as maintaining roads unsealed, may be necessary for key roadside sites.

Some members of the community perceive that revegetation may increase the incidence of pest animal problems. Pest animal management needs to be improved if revegetation programs are to be successful.

## Management Action

### Previous Management Actions

Several park management plans make reference to the presence of Grey-crowned Babblers, (e.g. Barmah State Park, Grampians (Gariwerd) National Park). However, the most important populations occur outside these conservation reserves.

Most roadsides in the shires of Benalla, Euroa and Violet Town were surveyed for Grey-crowned Babblers in 1991/92. As a result of these surveys, the number of known groups in the Benalla region has been doubled from 33 to 66, with the number of potential groups exceeding 150 (based on nests more than 500 m apart). Copies of the maps are available on request.

On the Mornington Peninsula and in the Port Phillip Area some specific recommendations for management have been proposed, but none has been implemented. Funding is being sought for programs including predator-proof fencing at Churchill National Park.

As part of the Land for Wildlife Scheme, a voluntary conservation program on private land, advice and information about Grey-Crowned Babblers has been given to individual landholders. There have been preliminary discussions with some councils regarding habitat management, e.g. Mornington, Hastings and Violet Town Shires, and Frankston City Council.

Articles about Grey-crowned Babblers have been published in local papers on the Mornington Peninsula and around Ballarat.

### Intended Management Actions

#### Research

Research is required into the following aspects of the ecology of Grey-crowned Babblers:

- Current distribution of the species across Victoria and in adjacent parts of New South Wales.
- Habitat requirements at both a landscape and a site scale.
- Life-history parameters, specifically home range size, dispersal patterns, survivorship, nesting ecology, effects of group size on nesting success and the impact of predators.
- Food availability, and effects of practices such as fire protection and grazing on feeding habitat.

#### Monitoring

A broad monitoring program of all populations with more than five family groups will be developed in 1993 to assess

the current status of those populations in Victoria and the success of implemented management actions. Smaller-scale monitoring of colour-banded colonies has begun on the Mornington Peninsula and in the Violet Town region, and should provide detailed information on individual survival.

#### Extension

Prepare an information pamphlet for landholders by the end of 1993 based on the findings of the critical habitat studies. Use the Land For Wildlife program to disseminate information. Instigate an extension program focusing on major extant populations within regions to promote better habitat conservation.

#### Habitat Management

- Complete the study of the ecological and habitat requirements of Grey-crowned Babblers, including a determination of critical habitat, and make detailed management recommendations by early 1993.
- Develop site-specific management to maintain and, where possible, enhance the habitat of Grey-crowned Babblers. This action may require fencing key elements of Grey-crowned Babbler habitat on private land and along unused roads. Widening roadside reserves to form links between populations should be encouraged where possible.
- Provide financial incentives to landholders to fence off Grey-Crowned Babbler habitat on private land, through an injection of funds into the Land Protection Incentive Scheme and from external funding sources.
- Examine the current legislation and policy with respect to unused roads and their management. Establish negotiations between Flora and Fauna, Public Land Management Policy Divisions and CNR Areas to ensure better grazing control along important unused roads.
- Investigate existing management of firewood resources to determine:
  - where most firewood is taken from;
  - how its removal impinges on the habitat of the Grey-crowned Babblers;
  - the possibility of establishing woodlots on private land.

Such an investigation would serve both nature conservation and firewood supply.

- Look at current fire protection practices through the RCC in conjunction with the CFA at a head office and local level to develop guidelines for appropriate management of roadsides.

#### Liaison

- Incorporate recommendations for managing Grey-crowned Babbler habitat into roadside management plans by assisting in their development in consultation with local government authorities, Country Fire Authority, and landholders in important habitat areas.
- Consult with all of the major land managers who have an impact on roadside, unused road and farmland

native vegetation (shires, Land Care groups, farmer organizations, local CFA, utility providers, CNR and individual landholders).

- Provide recommendations for managing Grey-crowned Babbler habitat to the Roadside Conservation Committee.
- Provide recommendations for managing Grey-crowned Babbler habitat to interstate conservation authorities in New South Wales, Queensland and South Australia.
- Advise appropriate shires on locations of all extant Grey-crowned Babbler groups. Shires are the responsible authority for Native Vegetation Clearance applications less than 10 ha.
- Ensure that rural tip sites within Grey-crowned Babbler habitat are managed to destroy cats. For example, the Euroa Tip site.
- Consult with golf course managers to enhance habitat values of golf courses for Grey-crowned Babbler and other wildlife (three groups of Grey-crowned Babbler in the Melbourne area occur on golf courses (Schulz 1991); groups are also found on golf courses at Murtoa and near Echuca).
- Consult with the Bird Observers Club of Australia, Royal Australasian Ornithologists Union and local Field Naturalists Groups.
- Publish information about Grey-crowned Babbler and their management requirements in the rural media.

## Other Desirable Actions

- Determine the effects of proposed habitat management works on other woodland flora and fauna.
- Encourage a detailed vegetation survey of the woodland communities that encompass the Grey-crowned Babbler's current range.
- Investigate the desirability of nominating these vegetation communities for inclusion in Schedule 2 of the Flora and Fauna Guarantee Act 1988.
- Encourage shires to address the issue of responsible pet ownership, particularly of cats.

## Legislative Powers Operating

### Legislation

*Wildlife Act 1975*-regulates the taking and possessing of wildlife. *Pomatostomus temporalis* is protected wildlife under the Act.

*Flora and Fauna Guarantee Act 1988*-regulates taking of listed items and protected flora from the wild, provides for habitat protection and promotes conservation actions.

*Planning and Environment Act 1987*-establishes planning schemes which include some conservation controls (e.g. Native Vegetation Retention Regulations), and provides for management agreements.

*Crown Land (Reserves) Act 1975*-provides for reserving areas as public land and for making a specific reservation status for existing public land.

*Fences Act 1968*-provides guidelines to landholders for constructing, maintaining and repairing dividing fences.

*National Parks Act 1975*-makes provision for National Parks and their management.

*Forest Act 1978*-controls firewood collection.

### Licence/Permit Conditions: Guidelines and Instructions

CNR will not support applications to clear woodland vegetation from known and potential sites for Grey-crowned Babbler, except where human safety is an issue.

CNR will not issue firewood collection permits in areas that include or abut known Grey-crowned Babbler sites.

A permit under the Wildlife Act to trap, take or possess the Grey-crowned Babbler should only be issued if CNR is satisfied that the proposal has direct benefit to the conservation of the species.

The Grey-crowned Babbler is regarded as a Non-Tradeable Item under the Wildlife Regulations and as such is excluded from the Wildlife Possession Schedule. There are no records of the Grey-crowned Babbler being legally held by fanciers.

### Consultation and Community Participation

Most known groups of Grey-crowned Babbler occur partly on roadsides managed by municipalities and partly on adjoining pastoral land. Accordingly, the success of conservation actions and the recovery program will depend on community participation, which may be fostered by Land Care groups and the Land for Wildlife Scheme. It is hoped that these groups will help distribute information about Grey-crowned Babbler management.

### Implementation, Evaluation and Review

The Area Managers in locations where the Grey-Crowned Babbler occurs will coordinate the implementation of this action statement. Primary responsibility for implementation of the plan will lie with Shire Officers on roadsides and CNR Land Protection Officers on private land.

In line with the major conservation objectives to maintain large populations and to increase smaller, potentially viable, populations, the results of monitoring programs will be assessed in February 1998. The plan will be reviewed in the light of this information.

### Contacts

#### Management

The Flora and Fauna Guarantee Officer in the relevant regions of CNR.

#### Biology

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Ian Davidson, Department of Conservation and Natural Resources, Benalla.

## Compilers

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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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