

Action Statement

Flora and Fauna Guarantee Act 1988

No. 83

Grey Falcon

Falco hypoleucos

Description and Distribution

The Grey Falcon is a smoke-grey bird with bright orange-yellow legs and feet. It is between 300 mm and 430 mm long and has a wing span of up to 950 mm. The female is larger than the male. The upper-parts are grey-blue, but the tail feathers are barred darker grey and the primaries have black tips. The face and under-parts are whitish with thin dark streaks. The eyes are brown, and the bill is yellow at the base and tipped with black, with an orange-yellow cere.

The species occurs throughout the arid and semi-arid zones of Australia, where the mean annual rainfall is less than 500 mm, but rarely in waterless areas. These areas are relatively treeless except along watercourses, and comprise sandy to stony plains, spinifex tussock grassland, low shrubland and acacia scrub. This corresponds to the Eyrean faunal zone (Schodde 1982). Breeding is usually confined to the arid zone, where the annual rainfall is less than 250 mm. Nests are usually in tall eucalypts close to a watercourse, although these may be dry during nesting. During droughts they venture towards higher rainfall areas, and seasonally may move north during winter and south during the summer. The area near the junction of the Murray and Darling Rivers has held larger numbers of Grey Falcons in drought years and appears to be a drought refuge.

In Victoria the species is on the periphery of its arid-zone range. Grey Falcons have been sighted in most years in north-west Victoria. They may be more common in Victoria during or following droughts. The inland droughts of 1977-78 contributed to more sightings as the birds moved south in search of more favourable conditions.

The Atlas of Victorian Wildlife has only 68 records of the Grey Falcon, 43 of which are since 1970. Records of breeding in Victoria are sparse, with

one in 1901 near Mildura and another in 1941. Two nests were located north of Lake Cullulleraine in the 1990s (D Baker-Gabb, pers. comm.), but there are no breeding records in the Atlas since 1901.

The species feeds primarily on birds, particularly graminivorous parrots and pigeons, but there are some records of small mammals, insects and reptiles being taken (Marchant and Higgins 1993).

Conservation Status

Current Status

CNR (1995)	Vulnerable in Victoria.
SAC (1992)	Threatened in Victoria

The Grey Falcon is listed as a threatened taxon in Schedule 2 of the Flora and Fauna Guarantee Act 1988.

Reasons for Conservation Status

Little is known about the Grey Falcon. It is one of the rarest Australian falcons (Cupper & Cupper 1981), and there are very few records for Victoria. No nests had been located in Victoria in recent years, despite numerous searches (Lindsay Cupper, pers. comm.), until two were located in the 1990s (D. Baker-Gabb pers. comm.). It has never been considered common, and the sighting of a Grey Falcon has always been a notable event. It is now less common around Mildura than in the 1950s.

Clearing and grazing of arid zone habitat, the destruction of raptors because they were thought to prey on domestic poultry, and the use of pesticides have all had an adverse effect on the species (Olsen & Olsen 1986). A large part of its preferred habitat in Victoria is private land and has been developed for agriculture.

Major Conservation Objectives

The major conservation objectives are to:

- protect sufficient areas of remaining habitat to ensure that viable populations are able to survive and breed successfully in the wild (Victoria depends entirely on other States for a viable population),
- minimise threatening processes such as habitat destruction and overgrazing and egg collection (unless collection is authorised for approved research), and
- determine the ecological requirements of the Grey Falcon.

Management Issues

Ecological Issues Specific to the Taxon

The management of species with small, widely dispersed and partially nomadic populations is difficult. The fact that the Victorian population is on the fringe of the species' range and forms a small part of the total population means that many factors which influence the population are beyond Victorian control. There must therefore be consultation with agencies in adjoining State.

Throughout its Victorian range, the management of the Grey Falcon must be aimed at reversing, or at least minimising the identified impacts on the species. The protection of known nests is essential, but as there are so few this needs to be extended to habitat protection over the known range to ensure that nest sites are available as required. Nest sites must be in undisturbed areas with a high availability of food; that is, a relatively intact vegetation and a correspondingly high bird population. This is of particular importance near the junction of the Murray and Darling Rivers, as a drought refuge area.

It is not clear why the Grey Falcon is largely confined to the arid zone. Suitable prey species and nesting sites are freely available outside this environment, but the Grey Falcon rarely visits these areas. It is possible that competition with the Peregrine Falcon is the cause, as there is a great similarity between the two species in both hunting style and choice of prey. If competition does occur, the more powerful Peregrine would prevail; it might thus be that the Grey Falcon is an ancient Australian species retreating before the dominant and more recently arrived Peregrine. This is only a theory, but there must be a reason why this peculiarly Australian species is able to survive and breed in the country's arid country yet is unable to make more use of the wetter regions which appear to be equally well-suited to its needs (Hollands 1984). A progressive adaptation to the drying of the interior may also be partly responsible.

The rarity of the species, and even more the scarcity of nests, has created a demand for eggs by collectors, who are prepared to pay high prices for eggs or information on the locations of nests. Grey Falcons do not defend their nests or eggs, and as a consequence eggs are relatively easily removed.

The use of pesticides in marginal farmland did result in localised DDT-related eggshell thinning, and thinning of up to 15% has been detected (Olsen, Fuller & Marples, 1993). Although DDT is no longer used, the effects may continue for some years.

Wider Conservation Issues

Nearly 50 other bird species in the North West Region are threatened or suspected to be threatened. Habitat protection is likely to assist in the conservation of many these species, including other raptors such as the Square-tailed Kite (*Lophoictinia isura*), Letter-winged Kite (*Elanus scriptus*) and Black Falcon (*Falco subniger*). Since tall trees are used as nesting sites, their protection is also likely to help protect a number of threatened arboreal mammals and reptiles.

The number of Grey Falcons in Victoria is never likely to be large, so its protection is unlikely to have a significant impact on threatened potential prey species, nor on the populations of pest species such as European Rabbits (*Oryctolagus cuniculus*).

Social and Economic Issues

The conservation of the Grey Falcon should have no negative social impact (other than a perceived threat to poultry), but there could be minor economic impact on landholders if grazing is to be reduced.

The rarity of the species has put a high value on eggs for collectors, and hence increased pressure on the species. Any site-specific information must be kept confidential, with access given only to people involved in monitoring sites. The need for landholder involvement makes this more difficult to achieve because more people will have access to site information. Procedures need to be established to minimise the circulation of information beyond those who require it for management of the species.

Falconers and overseas zoos are also very keen to have pairs of these birds, which could encourage 'professional' poachers.

Previous Management Action

In Victoria, nothing has been done specifically for this species, apart from efforts to locate nests, with very limited success. Moves in recent years to

halt land degradation will have assisted in protecting habitat, or at least in slowing the rate of decline.

Intended Management Action

Except where indicated, the following management actions are to be undertaken or coordinated by NRE's North West Region.

Research and Survey

- Accurately establish the range of the Grey Falcon in Victoria and adjoining states.
- Estimate the size of the population that may utilise Victorian habitats and the potential for recruitment. This will require that all relevant NRE staff (Rangers, Land Protection Officers etc.) are informed and trained to report sightings.
- Investigate the ecological requirements of this species, including dietary requirements and preferences, breeding and dispersal of young, nesting preferences and longevity.
- Enlist the aid of naturalist, bird observer groups and landholders in recording observations to build on the limited records for this species.

Habitat Protection

- Ensure that the habitat requirements of the Grey Falcon are taken into account in the management of public land, and encourage habitat protection on private land.

Enforcement

- Implement a special enforcement effort to protect known nests, particularly during nesting, to eliminate the threat of egg collection.

Landholder Consultation and Liaison

- Increase public awareness of the species, and seek records through the Land for Wildlife scheme and newspaper articles. (Flora and Fauna Program)
- Consult with all landholders with nest sites or potential nest sites on their properties to ensure the long-term protection of such sites. Frequent liaison and interest is more likely to stimulate interest and 'ownership' of the need to protect the Grey Falcon and its habitat.
- Liaise with Mallee and Wimmera Catchment and Land Protection Boards regarding appropriate land management for the Grey Falcon.

Other Desirable Management Action

- Consult with relevant authorities in adjoining states on all planning and management matters. A 'working group' should be established to ensure continual consultation between the relevant state authorities and external groups such as Birds Australia (RAOU) and the Australian Raptor Association.

Legislative Powers Operating

Legislation

Catchment and Land Protection Act 1992 — 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 coordination 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.

Country Fire Authority Act 1958 — provides for fire protection and suppression in rural areas and requires that authorities take practical steps for the prevention of fires.

Flora and Fauna Guarantee Act 1988 — provides for the protection of flora and fauna through a range of mechanisms, including controls over the handling of protected flora and listed fish.

Forests Act 1978 — provides for the management of forests, and includes controls over the taking of forest produce.

Local Government Act 1958 — provides for local council by-laws and conservation regulations (e.g. permit requirement for land clearing).

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 and for regional planning controls in all planning schemes.

Victorian Conservation Trust Act 1972 — provides for the establishment of conservation covenants on land titles.

Wildlife Act 1975 — provides for the management of wildlife and includes controls over the handling of protected wildlife (vertebrates other than fish, and invertebrates listed under the Flora and Fauna Guarantee Act 1988). The status of the Grey Falcon

as protected wildlife makes the taking of it without a permit an offence under the Act.

Licence/permit conditions

No permit will be granted unless a proposal conforms with the broad conservation and research strategy proposed in this action statement.

Implementation, Evaluation and Review

The Regional Manager, NRE North West Region, will be responsible for implementing this action statement. Progress in achieving the major conservation objectives will be evaluated annually. The action statement will be reviewed in 2002.

Contacts

Management

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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 1997 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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Published by the Department of Sustainability and Environment, Victoria. 8 Nicholson Street, East Melbourne, Victoria 3002 Australia

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ISSN 1448-9902