

Action Statement

Flora and Fauna Guarantee Act 1988

No. 169

Swift Parrot *Lathamus discolor*

Description and distribution

The Swift Parrot *Lathamus discolor* Shaw 1790 (Psittaciformes: Platycercidae) is a non-breeding winter migrant to the mainland from Tasmania. It has a restricted breeding area in the east of Tasmania, arriving on the mainland in autumn to spend the winter period in foraging groups inhabiting forests and woodlands in south-east Australia.

Swift Parrots are small to medium size birds reaching a length of 245mm, including a 120mm tail. Sexes are similar, except that the female is generally duller than the male. General plumage is green. Crown and ear coverts are dark blue and the face is red with yellow margins. Underparts are lighter and paler than back. Shoulder and underwing coverts are red, eye yellow and bill a horn colour. Brown (1989) and Higgins (1999) give a full description of the species.

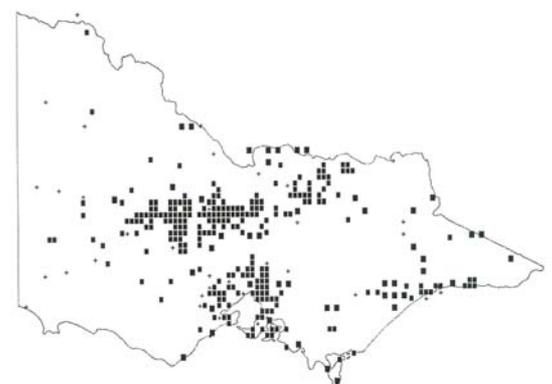


Swift Parrot *Latham discolor*
(Photo: Mike Carter)

Habitat

In Victoria, the over-wintering habitat of the Swift Parrot is eucalypt forests and woodlands consisting primarily of the winter-flowering Grey Box (*Eucalyptus microcarpa*), Red Ironbark (*Eucalyptus tricarpa*), Mugga Ironbark (*Eucalyptus sideroxylon*) (far north-east Victoria), Yellow Gum (*Eucalyptus leucoxylon*) and White Box (*Eucalyptus albens*) (Brown 1989; Emison *et al.* 1987, C. Tzaros *pers. comm.*). They feed in gregarious flocks on nectar where eucalypts are in blossom or where lerps/psyllids are common. Blakers *et al.* (1985) describes Swift Parrots feeding on lerp psyllids amongst Red Gum (*Eucalyptus camaldulensis*) as well as the aforementioned species.

In general terms, Grey Box flowers in autumn when the birds first arrive, followed by the Ironbarks



Distribution in Victoria
+ before 1970, ■ since 1970 [source: DSE 2004]

with Yellow Gum and White Box often flowering late prior to birds departing for Tasmania.

Life history and ecology

Swift Parrots breed in the east and midlands of Tasmania and spend the winter in mainland Australia. Migration to the mainland occurs between January and May; the return journey to Tasmania occurs in August and September. Some birds have been recorded as remaining resident in Tasmania through winter, and small numbers may remain in Victoria during summer (Emison *et al.* 1987).

The roosting sites of the Swift Parrot often differ from their feeding areas. In Tasmania, Brown (1989) reported that post-breeding birds often fly for long distances (> 40 km) to feeding sites during the day, returning to the roost in the evenings. In Victoria, large groups of Swift Parrots seen feeding in Yellow Gum woodland during the day near Plenty Gorge have been observed to travel over 10km distances in the evening to return to roost sites on the Yarra River (Beardsell 1997).

Whilst little is known of the birds movements on the mainland, counts conducted each winter between 1995 and 1998 show that the parrots concentrate mainly in southern and central Victoria (Tzaros 1996, 1997, 1998a; Kennedy 2001), centred on the box-ironbark forests consistent with sighting records from previous years (Emison *et al.* 1987). It is thought their appearance elsewhere on the mainland is a result of dispersal from this centre, as they follow the blossoming of various eucalypt species (Emison *et al.* 1987).

Birds appear most years in north-east Victoria along the Hume Highway corridor, associated with Grey Box and Blakely's Red Gum (*Eucalyptus blakleyi*) in April/May then dispersing into box-ironbark habitats. In some years, Swift Parrots remain throughout winter whilst, in other years, their numbers are high in autumn, low in winter and high again in early spring (I. Davidson *pers. comm.*), most probably coinciding with more northerly movements into the western slopes of New South Wales.

In the 1950s, several localities around Sydney were estimated to hold thousands of Swift Parrots, and before 1950, the Swift Parrot regularly visited the Mt Lofty Ranges in South Australia but is now only an irregular visitor (Blakers *et al.* 1985).

For a full account of species distribution in Tasmania and the mainland refer to Brown (1989) and Robinson (1994).

Conservation status

National conservation status

The Swift Parrot has been listed as endangered under the Commonwealth **Environment Protection and Biodiversity Conservation Act 1999**.

Victorian conservation status

The Swift Parrot has been listed as threatened under the **Flora and Fauna Guarantee Act 1988**.

The Swift Parrot is considered endangered in Victoria (DSE 2003).

Decline and threats

This species is the only member of the genus *Lathamus*, having some affinities with both the lorikeets and the rosellas. The Swift Parrot population appears to be in decline in Tasmania. In the late 1980s the estimated breeding population was approximately 1,300 pairs (Brown 1989), and has subsequently declined to about 1,000 breeding pairs (Brereton 1996). Only the endangered Orange-bellied Parrot (*Neophema chrysogaster*) has a smaller total population (Brown 1989).

The major cause of decline is believed to be loss of breeding habitat in Tasmania due to forestry operations, particularly the harvesting of mature age Blue Gum (*Eucalyptus globulus*), coupled with continual loss of mainland winter-flowering eucalypts on which the over-wintering birds are dependent (Brown 1989, Gaffney & Brown 1992, Robinson 1994). In Tasmania, it is conservatively estimated that no more than one third of the original Blue Gum forest habitat remains and is continuing to diminish at around 1 000 ha annually (Brown 1989). In addition, high mortalities in Hobart from birds hitting house windows and roadkills from cars are a major concern to wildlife authorities (Swift Parrot Recovery Team 2001). It is unknown to what degree mortalities of this nature occur on the mainland. Being a migratory species, Victoria is its stronghold on the mainland where its distribution is associated with certain forest types (in conjunction with heavy blossom). Approximately eighty-three per cent of the original box-ironbark vegetation has now been cleared and what is left is highly modified and fragmented from its original structure (ECC 2001).

Since European settlement, the box-ironbark forests and woodlands have been extensively cleared and fragmented for agriculture, urban development and gold mining, and cut for a variety of wood products (ECC 2001). In essence then, a major issue may centre on habitat quality rather than habitat quantity. For example, many

sightings of Swift Parrots in recent years have been along drainage lines. This may be in response to better water and soils and hence better flowering and increased insect abundance. Drainage lines in the Box-ironbark are mostly highly degraded due to the practices mentioned above.

White Box appears to be an important foraging resource. Much of its extent is on privately-owned agricultural land, where it is fragmented and continuing to degrade. Rural tree decline and other incremental processes may be reducing available quality habitat.

A major limitation to managing for its conservation continues to be our poor knowledge of its ecological requirements. In its final recommendation the Scientific Advisory Committee (SAC 1991) has determined that the Swift Parrot is:

- in a demonstrable state of 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 and distribution.

Existing conservation measures

Biological research and survey

Bi-annual statewide winter surveys commenced in 1995 and are undertaken over designated weekends in May and August each year. The counts show that most Swift Parrots in Victoria are observed on public land, some sites have been used in two or more years and site use is correlated to the extent of tree-flowering (Tzaros 1996, 1997, 1998a, S. Kennedy *pers. comm.*). Ecological research on the foraging ecology of the parrot in Victoria has shown that more than 90% of observations were of birds using Red Ironbark, Mugga Ironbark, Yellow Gum or Grey Box and the parrots feed preferentially on clumps of large trees (> 40 cm DBHOB), which are usually the site of the most intensely flowering trees, and are used by a higher diversity and abundance of other nectarivorous birds, than are found elsewhere in the forest (Tzaros 1998b, Kennedy 1998, Kennedy and Tzaros 2001, Kennedy and Price 2001). Often these sites are on low-lying, fertile ground that are used by many species of fauna as drought-refuges.

Yellow Gum bird censuses have been ongoing for over 10 years in the Plenty Gorge area (Beardsell *in prep.*) Winter surveys for Swift Parrots in Grey Box areas has been undertaken in the Port Phillip Area in previous years.

Habitat inventory

Surveys documenting the botanical and zoological significance of the greater Melbourne area have been prepared (McDougall 1987, Beardsell *in prep.*)

Reports documenting the vegetation assessment of the Box-Ironbark Region (Muir *et al.* 1995) and identification of remnants (Davidson 1996) have been prepared.

As part of the Environment Conservation Council (ECC) investigation of Box-Ironbark Forests and Woodlands, a range of habitat inventories have been undertaken eg Large Old Tree Sites, Drought Refuges (ECC 2001)

Habitat conservation

The Environment Conservation Council (formerly the Land Conservation Council) has completed a five year study of the Box-Ironbark Forests and Woodlands and has recommended a substantial increase in the area protected within National Parks, State Parks and other conservation reserves. The Victorian Government has responded in detail to these recommendations and indicated full in-principle acceptance of the new parks.

Areas of Red Ironbark and Yellow Gum of importance for Swift Parrots have been protected within the Plenty Gorge Park, on the northern outskirts of Melbourne. Within DSE's Gippsland Region, Red Ironbark is not harvested.

Habitat management

In the Bendigo area, DSE has forest harvesting prescriptions which are based on habitat re-establishment and the improvement of existing habitat quality. Both the Midlands and North East Forest Management Plans contain management guidelines. Parks Victoria managers are looking at improving habitat management for threatened species in priority habitat sites.

Recovery Team

A National Swift Parrot Recovery Team has been established to co-ordinate conservation management activities. Funding has been successful in obtaining a full-time co-ordinator based within the Tasmanian National Parks & Wildlife Service who undertakes research and other conservation programs directed by the Recovery Team.

Recovery Plan

The National Swift Parrot Recovery Plan has been prepared. The Recovery Actions incorporate the thrust of the Victorian Action Statement as it relates to management activities and programs

required in this state to meet conservation objectives.

Conservation objectives

Long term objective

The long-term objective is to maximise the protection and retention of wintering habitat throughout Victoria to ensure that habitat availability will cater for a minimum of 5 000 birds. This figure is based on the known present breeding population of 1 000 pairs and the work by Thomas (1991) on determining minimum viable population numbers for long-term security.

[It should be noted that the National Recovery Plan objective is to change the conservation status of the swift parrot from endangered to vulnerable within 10 years and to achieve a demonstrable sustained improvement in the quality of swift parrot habitat to increase carrying capacity (Swift Parrot Recovery Team 2001)].

Objectives of this Action Statement

1. Improve our knowledge of Swift Parrot ecology;
2. Prevent further loss of habitat by identifying and protecting the 40 most important sites on public land within the next two years;
3. Reverse the ongoing degradation of existing remnant habitat by encouraging landholder cooperation and providing community awareness programs.

Intended management actions

The intended management actions listed below are further elaborated in DSE's Actions for Biodiversity Conservation database. Detailed information about the actions and locations, including priorities, is held in this system and will be provided annually to land managers and other authorities.

Research and Survey

1. Continue to identify and map the extent of the over-wintering habitat of the Swift Parrot to identify important sites that are used regularly, concentrating primarily on forests and woodlands consisting of winter-flowering eucalypts, based on the approach used by Kennedy and Price (2001).

Responsibility: DSE (Biodiversity & Natural Resources Division, Regions)

2. Investigate the movement patterns of Swift Parrots throughout their winter migration, particularly where large concentrations may occur on arrival and departure.

Responsibility: DSE (Biodiversity & Natural Resources Division, Regions)

3. Conduct regular surveys of well known/used habitats outside the two count periods - coinciding with peak flowering/lerp events.

Responsibility: DSE (Biodiversity & Natural Resources Division, Regions), Parks Victoria

4. Collect further ecological data (compatible with Tasmanian protocols used by Breerton 1996) on Swift Parrots at foraging sites, especially at post- and pre-migration periods. Data could be collected as part of a post graduate study.

Responsibility: DSE (Biodiversity & Natural Resources Division)

5. Undertake targeted Swift Parrot surveys to map and assess the condition of the box-ironbark habitat in key areas of Gippsland, based on reliable Swift Parrot records.

Responsibility: DSE Gippsland Region

Habitat conservation – private land

6. Provide information and advice, including maps, regarding the location and management of Swift Parrot sites to landholders, land managers and other authorities, especially Catchment Management Authorities and local government authorities.

Responsibility: DSE (Biodiversity & Natural Resources Division, Regions)

7. Incorporate actions to protect, enhance and restore Swift Parrot habitat into relevant Regional Catchment Strategies or their subordinate strategies via Biodiversity Action Plans. Implement these actions, according to priority, as resources become available, in conjunction with other agencies, community groups and landholders.

Responsibility: Catchment Management Authorities

8. Incorporate information regarding the location and management of Swift Parrot sites into local planning schemes, including environmental significance overlays, and apply the Victorian Planning Provisions so as to protect these sites.

Responsibility: Shires

9. Encourage landholders to protect, enhance and restore Swift Parrot habitat on private land, targeting known important areas. This could be achieved in a variety of ways, including voluntary agreements, incentives, conservation covenants and the Land for Wildlife scheme.

Responsibility: DSE (Regions), Catchment Management Authorities

Habitat conservation – public land

10. Protect by the use of appropriate zoning and prescriptions the areas identified by Kennedy and Price (NRE 2001) as being the most important Swift Parrot habitat on Crown land within the box-ironbark forests of central Victoria (see Appendix 1). These areas are to be designated as Swift Parrot Management Areas (SPMAs). SPMAs may overlap with areas managed for the conservation of other species, including Powerful Owl, Brush-tailed Phascogale and Squirrel Glider. The number, size and location of SPMAs may be amended in line with new information.

Responsibility: DSE (Biodiversity & Natural Resources Division, parks & Forests Division, Regions), Parks Victoria

11. Within State forest, SPMAs are to be designated as Special Management Zones and managed to protect the key habitat features for Swift Parrots. All larger trees will be protected from harvesting and all activities likely to disturb Swift Parrots will be excluded while the birds are foraging within the areas.

Responsibility: DSE (Regions, Parks and Forests Division)

12. Ensure that SPMAs within conservation reserves are managed to maintain or enhance their value as Swift Parrot habitat. All larger trees will be protected and all activities likely to disturb Swift Parrots will be excluded while the birds are foraging within the areas.

Responsibility: Parks Victoria

13. Undertake regular liaison with Department of Defence to ensure that management of Puckapunyal and Mangalore takes account of Swift Parrot requirements.

Responsibility: DSE (Regions)

14. Ensure that mineral exploration, mining and extractive industry activities are planned and conducted to minimise impacts on Swift Parrot habitat, especially within SPMAs. Where impacts are unavoidable, ensure that rehabilitation works enhance or restore habitat.

Responsibility: DSE (Regions), Parks Victoria

Community awareness and involvement

15. Develop and circulate community awareness tools including brochures, posters, slide-shows and web pages.

Responsibility: DSE (Biodiversity & Natural Resources Division)

16. Involve local Field Naturalist groups in identifying heavy winter-flowering eucalypts

and check for Swift Parrots throughout the winter period.

Responsibility: DSE (Biodiversity & Natural Resources Division)

References

- ANZECC (2000) *Threatened Fauna List*. ANZECC Endangered Fauna Network Secretariat, Environment Australia, Canberra.
- Beardsell, C. (1997) *Sites of Faunal and Habitat Significance in North East Melbourne*. Nillumbik Shire Council: Eltham, Victoria.
- Blakers, M., Davies, S.J.J.F., & Reilly, P.N. (1984) *The Atlas of Australian Birds*. Royal Australasian Ornithologists Union: Melbourne University Press.
- Breckwolfdt, R. (1986) *The Last Stand: Managing Australia's Remnant Forests and Woodlands*. AGPS: Canberra.
- Brereton, R. (1997) The Swift Parrot (*Lathamus discolor*) Recovery Plan 1997-1999. Parks & Wildlife Service, Dept. Environment and Land Management, Tasmania.
- Brown, P.B. (1989) *The Swift Parrot Lathamus discolor - A report on its ecology, distribution and status, including management considerations*. Department of Lands Parks & Wildlife, Tasmania.
- Brown, P.B. (1990) Swift Parrot. in *Threatened Birds of Australia*, ed. by J. Brouwer and S. Garnett, Royal Australasian Ornithologists Union and Australian National Parks & Wildlife Service, *RAOU Report No. 68*. p.75-76.
- Davidson, I. (1996) *Overview Report on remnant vegetation in the box-ironbark region*. Unpubl Report. Department of Natural Resources and Environment, Benalla.
- DSE (2003) *Advisory List of Threatened Vertebrate Fauna in Victoria - 2003*. Biodiversity & Natural Resources Division, Department of Sustainability and Environment: Melbourne.
- DSE (2004) *Atlas of Victorian Wildlife* (electronic fauna database). Department of Sustainability and Environment: Melbourne.
- Duncan S. & Sherwin, C. (1994) *Flora and Fauna of the Box-Ironbark Region: Strategic Directions and Priority Actions*. Second Draft. Department of Conservation & Natural Resources, Melbourne.
- ECC (2001) *Box-Ironbark Forests and Woodlands Investigation Final Report*. Environment Conservation Council
- Emison, W.B., Beardsell, C.M., Norman, F.I., & Loyn, R.H. (1987) *Atlas of Victorian Birds*. Department of Conservation Forests & Lands and Royal Australasian Ornithologists Union, Melbourne.
- FNCV (1993) *Box & Ironbark Woodland Conservation - Proceedings of the VNPA Conference held in Benalla in August 1992*. *Vict. Nat.* **110** (1).

- Gaffney, R.F. & Brown, P.B. (1992) *The Swift Parrot Recovery Plan: Research Phase*. Department of Parks, Wildlife and Heritage: Tasmania.
- Garnett, S. (1992a) *The Action Plan for Australian Birds*. Aust. Nat. Parks & Wildl. Serv., Pirie Printers, Canberra. update to 2000 - see below??
- Garnett, S. T. (ed) (1992b) *Threatened and Extinct Birds of Australia*. RAOU Report No.82, RAOU & Aust. Nat. Parks & Wildl. Service: Canberra.
- Garnett, S. & Crowley, G. (2000) *The Action Plan for Australian Birds - 2000*. Swift Parrot - pp. 327-330. Birds Australia/Natural Heritage Trust. Environment Australia: Canberra.
- Higgins, P. (ed)(1999) *Handbook of Australian, New Zealand & Antarctic Birds. Vol. 4: Parrots to Dollarbird*. Swift Parrot pp. 412-425. Oxford University Press: Melbourne.
- Kennedy, S. (1998) *Foraging ecology of the Swift Parrot (Lathamus discolor) in the Box/Ironbark region of Victoria*. Unpublished report to the Department of Natural Resources and Environment.
- Kennedy, S. (2001) *Swift Parrots. Results of Winter surveys on Mainland Australia, 1995-2000*. Unpublished report to the Department of Natural Resources and Environment.
- Kennedy, S. & Price R. (2001) *Characteristics of priority Swift Parrot foraging sites in the Box-Ironbark forests and woodlands of Victoria*. Unpublished report to the Department of Natural Resources and Environment.
- Kennedy, S. & Tzaros C.L. (in prep.) *Foraging ecology of the swift parrot Lathamus discolor in the Box-Ironbark forests and woodlands of Victoria*.
- Land Conservation Council (1978) *Report on North Central Study Area*. LCC Victoria.
- Lendon, A.H. (1973) Swift Parrot. In *Australian Parrots in Field and Aviary*. Angus & Robertson, Sydney. p.297-301.
- McDougall, K. M. (1987) *Sites of Botanical Significance in the Western Region*. Department of Geography, University of Melbourne.
- Muir, A.M., Edwards, S.E. & Dickens, M.J. (1995) *Description and Conservation Status of the Vegetation of the Box-Ironbark Ecosystem in Victoria*. Flora & Fauna Branch Tech. Report No. 136. Department of Conservation & Natural Resources: Melbourne.
- RAOU (1990) *Threatened Birds of Australia*. edit. by J. Brouwer and S. Garnett, RAOU Report No. 68, Moonee Ponds.
- Robinson, D. (1994). *Research Plan for Threatened Woodland Birds of Southeastern Australia*. ARI Tech. Report No.133. Department of Conservation & Natural Resources: Melbourne.
- SAC (1991) *Final recommendation on a nomination for listing: Swift Parrot Lathamus discolor (Nomination no. 173)*. Scientific Advisory Committee, Flora and Fauna Guarantee. Department of Conservation and Natural Resources: Melbourne.
- Swift Parrot Recovery Team.(2001) *Draft Swift Parrot Recovery Plan*. Department of Primary Industries, Water and Environment, Hobart.
- Thomas, V.C. (1991) *Recovery Plan -Research Phase for Long-footed Potoroo*. Unpublished Report to ANPWS.
- Tzaros, C.L. (1996) *A report on the winter survey of the Swift Parrot in Victoria, 1995*. Unpublished report to the Department of Natural Resources and Environment.
- (1997) *A report on the winter survey of the Swift Parrot in Victoria, 1996*. Unpublished report to the Department of Natural Resources and Environment.
- (1998a) *A report on the winter survey of the Swift Parrot in Victoria, 1997*. Unpublished report to the Department of Natural Resources and Environment.
- (1998b) *The Swift Parrot Lathamus discolor: a study of its foraging ecology in the Box-Ironbark ecosystem of northern Victoria*. Unpublished report to the Department of Natural Resources and Environment.
- Woodgate, P., & Black, P. (1988) *Forest Cover Changes in Victoria 1869 -1987*. Department of Conservation Forests and Lands: Victoria.

Compiled by Alan Webster, Port Phillip Region, Rob Price, North West Region and Kim Lowe, Parks, Biodiversity & Natural Resources Division

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 prepared under section 19 of the Flora and Fauna Guarantee Act 1988 under delegation from Chloe Munro, Secretary, Department of Natural Resources and Environment, October 2002.

© The State of Victoria, Department of Sustainability and Environment, 2003

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

Appendix 1: Sites identified by Kennedy and Price (2001) as important habitat for Swift Parrot in the Box-ironbark forests and woodlands..
(Ref.: Kennedy, S. & Price R. (2001) *Characteristics of priority Swift Parrot foraging sites in the Box-Ironbark forests and woodlands of Victoria*. Unpublished report to the Department of Natural Resources and Environment.)

Sites wholly within conservation reserves following ECC Box-ironbark recommendations

Big Tottington State Forest
Clunes State Forest
Crosbie State Forest
Dalyenong State Forest/Flora Reserve
Dunolly-Tarnagulla SF/Tarnagulla Flora Reserve
Graytown State Forest
Lyell State Forest
Mandurang SF/Spring Gully Water Reserve
Moliagul State Forest (Dardanelles Track)
Paddy's Ranges State Park
Shelbourne State Forest
Tunstalls State Forest
Wellsford State Forest
Whipstick SP/Eaglehawk RP/uncommitted.
Boweya Flora and Fauna Reserve
Chiltern National Park
Dookie Bushland Reserve
Killawarra State Forest
Warby Ranges State Park
Deep Lead Flora and Fauna Reserve
Glynwylln State Forest
Jallukar State Forest
Morrl Morrl State Forest

Sites partly within State forest and partly within conservation reserves following ECC Box-ironbark recommendations

Havelock State Forest/Timor State Forest
Maldon State Forest
Rushworth State Forest
St.Arnaud State Forest
Wareek State Forest (Chadwick Dam)
Spring Plains/Argyle State Forest
Illawarra State Forest

Sites wholly within State forest following ECC Box-ironbark recommendations

Costerfield State Forest
Diamond Dam
Dunolly-Tarnagulla SF (Murderers Hill-Wet Gully)
Kingower State Forest
Lockwood South SF
Mt. Hooghly SF
Redcastle State Forest (Holt's Flat)
Sandon State Forest
Sedgwick State Forest
One-Eye State Forest