

ACTION PLAN No. 16

In accordance with section 21 of the *Nature Conservation Act 1980*, the **Swift Parrot (*Lathamus discolor*)** was declared a vulnerable species on 19 May 1997 (formerly Instrument No. 89 of 1997 and currently Instrument No. 192 of 1998). Section 23 of the Act requires the Conservator of Flora and Fauna to prepare an Action Plan in response to each declaration. This is the Action Plan for the:

Swift Parrot *Lathamus discolor*

Preamble

The *Nature Conservation Act 1980* establishes the ACT Flora and Fauna Committee with responsibilities for assessing the conservation status of the ACT's flora and fauna and the ecological significance of potentially threatening processes. Where the Committee believes that a species or ecological community is threatened with extinction or a process is an ecological threat, it is required to advise the responsible Minister and recommend that a declaration be made accordingly.

Flora and Fauna Committee assessments are made on nature conservation grounds only and are guided by specified criteria as set out in its publication "*Threatened Species and Communities in the ACT* July 1995".

In making its assessment of the Swift Parrot, the Committee concluded that it satisfied the criteria indicated in the adjacent table.

An Action Plan is required in response to each declaration. It must include proposals for the identification, protection and survival of a threatened species or ecological community, or, in the case of a threatening process, proposals to minimise its effect.

This Action Plan was prepared by the Conservator of Flora and Fauna in accordance with the Nature Conservation Act, in consultation with the Flora and Fauna Committee and after the statutory period of public comment.

While the legal authority of this Action Plan is confined to the Australian Capital Territory, management considerations are addressed in a regional context.

Criteria Satisfied

- 2.1 The species is known to occur in the ACT region and is already recognised as vulnerable in an authoritative international or national listing.
- 2.2 The species is observed, estimated, inferred or suspected to be at risk of premature extinction in the ACT region in the medium-term future, as demonstrated by:
 - 2.2.1 Current serious decline in population or distribution from evidence based on:
 - 2.2.1.1 Direct observation, including comparison of historical and current records;
 - 2.2.1.2 Serious decline in rate of reproduction or recruitment; serious increase in mortality, serious disruption of demographic or social structure; and
 - 2.2.1.3 Serious decline in quality or quantity of habitat.
 - 2.2.6 Small population.

Links with Other Action Plans

Measures proposed in this Action Plan complement those proposed in the Action Plan for Yellow Box/Red Gum Grassy Woodland (Action Plan No. 10) and in the Action Plans for other threatened birds in the ACT (Action Plan Nos. 15, 17, 18, 19, and 20). Action Plans are listed at the end of this document.

Species Description and Ecology

DESCRIPTION

The Swift Parrot *Lathamus discolor* is a small, streamlined, bright grass-green parrot, about 250 mm in length (Figure 1). It has a dusky red spike-shaped tail, red forehead and throat bordered by yellow, and blue crown and cheeks. In flight, the red underwing and red undertail are visible. The bill is light brown to grey and the iris yellow. Females are slightly duller than males. Immature birds are similar to adult females but can be distinguished by a pale orange bill and dark iris.

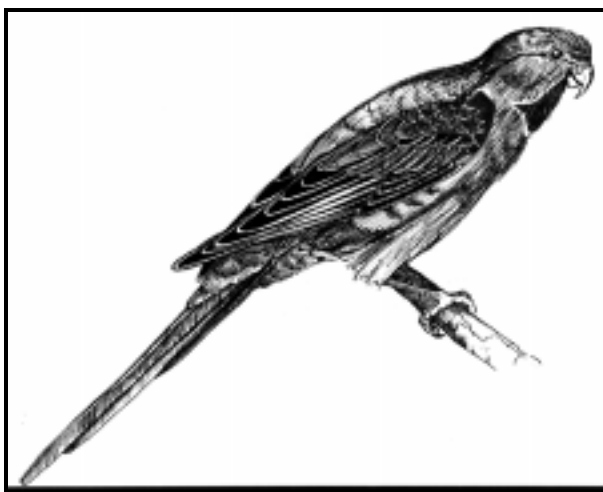


Figure 1: Swift Parrot (*Lathamus discolor*). Scale: Approximately two-fifths actual size.

DISTRIBUTION

L. discolor breeds only in Tasmania and over-winters mainly in the box-ironbark forests inland of the Great Dividing Range in NSW and Victoria. In some years, individuals are recorded wintering in South Australia and southern Queensland (Garnett 1992).

Birds return to Tasmania in late winter and early spring. The breeding range of *L. discolor* in Tasmania is now largely restricted to the east coast within the range of Tasmanian Blue Gum *Eucalyptus globulus*. There is also a small breeding population in northern Tasmania between Launceston and Smithton (Brereton 1996a) (Figure 2).

The species was a regular visitor to the Sydney region and southern South Australia until the 1930s-40s, but is now a vagrant in those areas (Higgins 1998).

Taylor and Canberra Ornithologists Group (COG) (1992) stated that individuals or small flocks reach the ACT, usually attracted by flowering eucalypts,

and are likely to occur anywhere in the lower parts of the ACT, below 700 m, once every two to three years.

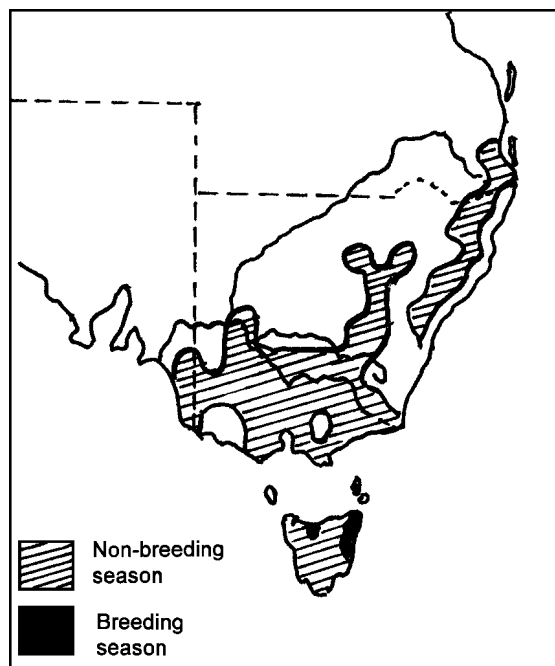


Figure 2: Distribution of *L. discolor* in south-east Australia, showing its breeding and winter range.

ABUNDANCE

Blakers *et al.* (1984) described records of 500-600 birds in locations around Sydney in 1958, with a flock of more than 1000 birds passing one point at Lane Cove in a twenty minute period.

A census of the *L. discolor* breeding population was conducted in Tasmania in 1987-88 during which 1320 pairs were counted (Brown 1989). A comparable census was carried out in 1995-96, when an estimated 940 pairs of birds were counted (Plowman 1996), a decrease of almost 30% in the population (Brereton 1996b).

Small numbers of *L. discolor* are recorded intermittently in the ACT (Brereton 1996a) although not each year. Historical records in the ACT region show large flocks of up to 40 birds on two occasions in the 1960's (Lamm *et al.* 1963). In the past 25 years there have been about 20 records of flocks of no more than seven birds from a number of inner Canberra suburbs, and areas such as Gungahlin and Hall. Single birds have been found dead, one at the Australian National Botanic Gardens and one at Mulligans Flat Nature Reserve.

HABITAT

Grassy Blue Gum (*E. globulus*) forest in south-eastern Tasmania is the most preferred forest type used by *L. discolor* during the breeding season (Brereton 1996b). This habitat is highly fragmented, with remnant patches of less than one hectare being commonly used (Brereton 1996b). Single isolated trees in farmland are also used as nest sites.

On the mainland, the species inhabits mainly dry open eucalypt forests and woodlands, usually box-ironbark communities and also Yellow Box/Red Gum woodland (Higgins 1998). It also often visits urban areas and farmlands with remnant woodland (Higgins 1998).

BEHAVIOUR AND BIOLOGY

L. discolor is largely an arboreal feeder, uttering subdued tuneful notes as it moves actively among the foliage, frequently hanging and head down nibbling the leaves for lerps (a group of small eucalypt sap sucking insects) or sipping nectar from the blossoms (Hindwood and Sharland 1964). As well as nectar and lerps, it feeds on eucalypt seed, grass seed, small caterpillars, and occasionally berries and other vegetable matter (Hindwood and Sharland 1964).

L. discolor has an extremely fast and direct flight on pointed quick-beating wings, and the flock moves with remarkable precision (Schodde and Tidemann 1986). For this reason and also because it migrates at considerable height, the bird is difficult to identify unless it is in a large feeding group.

L. discolor nests only in north-eastern and eastern Tasmania using hollows in mature and senescent trees. It breeds annually, in October and November. The clutch of 3-5 eggs takes about 30 days to hatch and the chicks fledge after 6-7 weeks. The breeding season of *L. discolor* coincides with the flowering of *E. globulus* and the nectar of this species is the main source of food during this time. In autumn, the population migrates to the mainland, where it feeds mainly on nectar from winter flowering eucalypts.

L. discolor occurs in small flocks on the mainland in eucalypt forest and woodland, where there are flowering trees (Blakers *et al.* 1984; Schodde and Tidemann 1986). Small flocks appear where eucalypts are flowering in profusion, or there is an abundance of lerps. *L. discolor* may be common in suburbs when plants are flowering, and in Tasmania fruit such as plums and apricots are eaten (Blakers *et al.* 1984).

The species has been recorded foraging on lerps and psyllids on a range of eucalypt species on the mainland including Blakely's Red Gum *Eucalyptus blakelyi* (Robinson 1994) which is a component of the Yellow Box/Red Gum Grassy Woodland, an endangered ecological community in the ACT. Some of the largest irruptions of *L. discolor* into NSW coincided with a great abundance of lerps (Blakers *et al.* 1984). Since these abundances rarely occur at the same location in successive years, neither do the birds (Blakers *et al.* 1984).

Conservation Status

L. discolor is recognised as a threatened species in the following sources:

International

Vulnerable. - Collar *et al.* 1994.

National

Endangered. - Commonwealth *Endangered Species Protection Act 1992*, Schedule 1.

Vulnerable. - Garnett 1992; ANZECC 1995.

Australian Capital Territory

Vulnerable. - Section 21 of the *Nature Conservation Act 1980*, Instrument No. 192 of 1998 (formerly Instrument No. 89 of 1997).

New South Wales

Vulnerable. - *Threatened Species Conservation Act 1995*, Schedule 2.

Victoria

Endangered. - *Flora and Fauna Guarantee Act 1988*, Schedule 2; DCNR 1995.

Tasmania

Vulnerable. - *Threatened Species Protection Act 1995*, Schedule 4. Vertebrate Advisory Committee 1994.

South Australia

Vulnerable. - *National Parks and Wildlife Act 1972*, Schedule 8; Watts 1990.

Threats

The principal cause of the observed dramatic reduction in range of *L. discolor* nationally is clearing for agriculture, urban development and forestry operations which has resulted in:

- considerable loss of foraging habitat within its summer breeding range in Tasmania; and
- loss of box woodland habitat in its wintering range in mainland Australia, including the ACT.

Since European settlement in the ACT region several major environmental changes have occurred that are likely to have seriously disadvantaged *L. discolor*. These are:

- **clearing of once widespread native open forest and woodland**, particularly box woodlands; and
- **urban development** - rapid spread of urban areas puts increasing pressure on remnant woodland patches; leading to:
- **fragmentation, separation and degradation** of remaining viable habitat areas.

In the ACT, it is possible that only as little as 3-4% of the original Yellow Box/Red Gum Grassy Woodland remains in something like its natural state (Landsberg pers. comm.). The current intact area of the adjoining White Box *E. albens* woodlands in NSW is considered to be less than 0.01% of its original extent (Prober and Thiele 1995).

Continuing threats to the species' woodland habitat include:

- **clearing of both living and dead trees** (for agricultural expansion, urban development and firewood collection);
- **grazing by livestock**;
- **use of chemicals** such as fertilisers and pesticides;
- **inappropriate fire regimes**; and
- **other causes of rural tree dieback** (see Action Plan No 10 for discussion).

It is the loss of woodland in the ACT part of the species' wintering range and the steps to be taken to prevent further habitat degradation, that can be addressed in this Action Plan in conjunction with the Action Plan for Yellow Box/Red Gum Grassy Woodland (Action Plan No. 10).

Major Conservation Objectives

The main objective of this Action Plan is to support national and regional efforts to maintain in the long term, viable, wild populations of *L. discolor* as components of the indigenous biological resources of Australia.

Implementation of conservation actions outlined in the Action Plan for Yellow Box/Red Gum Grassy Woodland (Action Plan No. 10) will be fundamental to making progress towards achievement of this objective. Other actions which will assist are:

- encouraging national programs of research, monitoring and experimental management aimed at identifying causes of population decline and preventing or managing them;
- negotiating with rural lessees for cooperative management arrangements for major areas of yellow box woodland of conservation value on leased land. Much of the habitat of the species within the ACT region is found on private land;
- cooperating with surrounding shires in NSW for conservation of road reserves and travelling stock routes, as they contain a large number of suitable trees for the species.
- increasing community awareness of the need to protect the species and its habitat.

Conservation Issues and Intended Management Actions

OVERVIEW

The key to conservation of this species in the ACT region lies with the conservation of its principal habitat, the Yellow Box/Red Gum Grassy Woodlands (an endangered ecological community). *L. discolor* is one of five bird species which are listed as threatened in the ACT region and which inhabit these woodlands. Any management prescriptions aimed at enhancing the conservation status of these woodlands will be beneficial to their associated fauna.

Critical local habitat features required by *L. discolor* include:

- winter flowering eucalypts; and
- eucalypts carrying lerps.

Also important to conservation of this species is co-operation with regional and national recovery efforts.

GENERAL

The rather sparse collection of records of *L. discolor* in the ACT region is representative of the sporadic nature of the distribution of the species on the mainland during winter. Nevertheless, the dates of records in the ACT, mostly in April-May (soon after birds have arrived on the mainland) and October (as birds are moving south again) indicate that the ACT is used by birds in passage. The species follows abundances of flowering eucalypts and lerps as they occur. It is likely that groups of *L. discolor* pass through the ACT before moving west into areas of key flowering eucalypts, for example, Grey Box *E. microcarpa*, White Box *E. albens* and Mugga Ironbark *E. sideroxylon*.

MANAGEMENT STRATEGIES

Protection of woodland areas that may provide wintering habitat for the species as it passes through the ACT is the main contribution to conservation of the species that can be made in the ACT. This will be achieved through the following management strategies which apply generally to Yellow Box/Red Gum Grassy Woodland:

- **Identification of habitat.** Suitable woodland patches, particularly those that contain the Yellow Box/Red Gum Grassy Woodland community have been identified in surveys undertaken by Environment ACT. It is this community and other woodlands containing Yellow Box trees which are most likely to be used by *L. discolor* in the ACT region.
- **Protection of areas containing Yellow Box habitat.** Protection of woodland specifically for *L. discolor* is not practical due to its opportunistic nature, although protection measures for woodland generally will benefit *L. discolor* and other threatened species of birds in the ACT region.
- **Enhancement of significant woodlands.** Where possible, stands of Yellow Box/Red Gum Grassy Woodland that are identified as having the highest conservation values should be managed to conserve habitat values. Protection of woodlands surrounding or connecting known habitat areas should be encouraged. Regeneration should be enhanced through the careful management of grazing pressures encouraged through Property Management Agreements. Planting of food resource trees will further enhance woodland patches.

⇒ Environment ACT will seek to implement these conservation management actions where it has the responsibility to do so. It will also encourage other agencies, individuals and community groups to do likewise.

NATIONAL RECOVERY TEAM

Liaison with other authorities involved in the conservation of *L. discolor* will be an essential part of the regional conservation effort. In particular cooperation with the National Swift Parrot Recovery Team should be developed and membership formalised.

⇒ Environment ACT will maintain links with the National Swift Parrot Recovery Team in order that ACT conservation actions are consistent with and coordinated with national programs.

MONITORING

Monitoring is essential to determine the long-term status of *L. discolor* populations in the ACT region and the success of any conservation measures taken. The Canberra Ornithologists Group is active in this regard and may be able to contribute to a monitoring program.

⇒ Environment ACT will encourage and where feasible, support bird surveys conducted in woodlands of the ACT region.

⇒ Environment ACT will forward any information on the species, particularly records, to the National Swift Parrot Recovery Team.

RESEARCH

Research into the ecology of *L. discolor* is required to assist understanding of its ecology and recovery requirements. Major research objectives concerning mainland wintering habitats are outlined in Robinson (1994) and Brereton (1996a). Objectives include:

- investigating movement patterns;
- locating important wintering habitat for *L. discolor*;
- evaluating threats to important sites;
- determining habitat requirements and ecology of *L. discolor* in woodlands, particularly flowering patterns and nectar productivity of key eucalypts; and
- incorporating habitat requirement information into regional conservation programs.

It is not practical for this research to be carried out in the ACT, but information arising from it may be applicable to conservation management of *L. discolor* in the ACT.

⇒ Environment ACT will encourage and, where feasible, support research into the ecology and conservation of for *L. discolor*. Results of this research will be applied as appropriate.

Protection

This Action Plan, implemented in conjunction with the Action Plan for Yellow Box/Red Gum Grassy Woodland, is the main instrument by which continued survival of *L. discolor* and its grassy woodland habitat can be assisted in the ACT.

The Action Plan for Yellow Box/Red Gum Grassy Woodland outlines proposed conservation measures for the protection of this endangered community in the ACT. These measures are fundamental to the conservation of *L. discolor* in the ACT as winter habitat for this species is largely within this ecological community.

MEASURES FOR PROTECTION

There are four principal measures for protecting the habitat of *L. discolor* in the ACT:

1. **Reservation.** Recognised as providing the primary mechanism for ensuring sites of high conservation value are not converted to a land use incompatible with their natural values.
2. **Memorandum of Understanding (MOU).** Memoranda of Understanding between the ACT Government and landholders, particularly the Commonwealth Government, provide another means by which sites with high conservation value will be managed so as to maintain their conservation value, while enabling compatible land uses to occur.
3. **Property Management Agreement (PMA) for leased rural land.** PMAs are being progressively introduced as rural leases are renewed. They establish an agreed framework for sustainable management of the land. Management standards may be agreed in recognition of particular conservation issues. The PMA process is currently under review to improve flexibility and accountability so that advances in knowledge and changes in management requirements can be more satisfactorily accommodated.

Rural land in the northern part of the ACT contains areas of remnant woodland habitat that is used by several threatened bird species, including *L. discolor*. Conservation management of potential *L. discolor* habitat, predominantly Yellow Box/Red Gum Grassy Woodland, on rural leases, will be promoted to rural lessees in the context of the requirements of the *Nature Conservation Act 1980* and the Action Plan for Yellow Box/Red Gum Grassy Woodland. PMAs are the most suitable mechanism for addressing the conservation requirements of threatened species whose habitat occurs in leased rural land. PMAs for leases which contain woodland identified as habitat for threatened species will be required to provide for their

conservation, sustainable management and improvement where appropriate.

4. **Off-reserve conservation on Public Land within the urban fabric.** Urban open space varies in status, tenure, land use and management authority. Where appropriate, the Conservator of Flora and Fauna may give directions under Section 47 of the *Nature Conservation Act 1980* for the protection of flora and timber on the land in question. Management Agreements or MOUs may be developed between the Conservator and an agency if management objectives or land use activities have potential to place conservation values at risk.

These protection measures will be applied as appropriate to areas in the ACT identified as habitat for threatened bird species. It is not envisaged that there will be a need to provide additional special protection measures to particular habitat areas specifically for *L. discolor* given its nomadic nature. Rather, proposals contained in the Action Plan for the Yellow Box/Red Gum Grassy Woodland (Action Plan No. 10) are likely to enhance the maintenance of habitat suitable for *L. discolor*.

Socio-economic Issues

The main social benefit of conserving the Swift Parrot, *L. discolor*, is that it addresses community concerns that further loss or extinction of significant ecological communities, together with their component native species, be prevented.

Bird watching is a major national recreational pursuit. Thus conservation of bird communities enhances the lifestyle of ACT residents and provides eco-tourism opportunities (in keeping with promoting Canberra as the bush capital).

It is difficult to identify specific impacts which may arise from the implementation of this Action Plan because of the nomadic nature of *L. discolor* and uncertain location of habitat used during its passage across the ACT.

1. Future Urban Areas

The areas of potential habitat for *L. discolor* in the northern part of the ACT (Gungahlin) are shown as Hills, Ridges and Buffers or Residential on the Territory Plan. These areas are being progressively reviewed and the urban edge boundary redefined. Some areas of Yellow Box/Red Gum Grassy Woodland will be retained under the Hills, Ridges and Buffers land use zone.

2. Rural Leasing Aspects

Some of the woodland areas that are potential habitat for threatened bird species including *L. discolor* are within rural leases. The Rural Policy Taskforce has recently reviewed all aspects of rural leases including the recommendation of appropriate lease terms. Two recommendations of the Taskforce which have been accepted by the Government and will affect this Action Plan are that:

- the lease term for some parts of the ACT be to the year 2020 with significant areas of rural land being available for 99 year leases; and
- there be no withdrawal clauses over any part of a rural lease unless it has been clearly defined for an imminent public work, such as a road, stormwater or other infrastructure, or where a habitat has been identified as needing special conservation status.

This will mean that the Territory would have to withdraw any area of land having conservation significance at the time of an application for a new lease, or acquire it subsequently under the provisions of the *Land Acquisition Act 1994*.

It is expected that it will be later in 1999 before rural lessees are able to take up a new lease under the proposed new arrangements. In the meantime, Environment ACT will need to identify areas requiring special conservation measures before applications for extended lease terms are received. In the event that large areas of a lease are to be withdrawn for conservation purposes, consideration will be given to the viability of the remainder of the lease.

Legislative Provisions

The following legislation is relevant to conservation of flora and fauna in the ACT region:

AUSTRALIAN CAPITAL TERRITORY

Nature Conservation Act 1980

The Nature Conservation Act provides a mechanism to encourage the protection of native plants and animals (including fish and invertebrates), the identification of threatened species and communities, and management of Public Land reserved for nature conservation purposes. Specified activities are managed via a licensing system.

Native animals and plants may be declared in recognition of a particular conservation concern and increased controls and penalties apply. Species declared as endangered must be

declared as having special protection status, the highest level of statutory protection required.

Other Relevant Provisions

The Nature Conservation Act provides authority for the Conservator to manage Public Land reserved for conservation of the natural environment. Activities that are inconsistent with management objectives for nature conservation are controlled. Special measures for conservation of a species or community of concern can be introduced in a reserved area, including restriction of access to important habitat.

Section 47 of the Act allows the Conservator to give the occupier of land directions for protection or conservation of native plants and animals. This provision is relevant to the management of threats to the conservation requirements of a species or community of concern that occurs on leased land. Part VIA of the Act provides for the Conservator to enter into a Management Agreement with an agency where the agency's activities have potential to conflict with nature conservation objectives. This provision is relevant to management of conservation threats on unleased land.

The Yellow Box/Red Gum Grassy Woodland, which provides habitat for *L. discolor*, has been declared as an endangered ecological community (formerly Instrument No. 89 of 1997 and currently Instrument No. 192 of 1998). The Conservator of Flora and Fauna has prepared an Action Plan for its conservation (Action Plan No. 10).

Land (Planning and Environment) Act 1991

The Land (Planning and Environment) Act is the primary authority for land planning and administration. It establishes the Territory Plan, which identifies nature reserves, national parks and wilderness areas within the public land estate.

The Land (Planning and Environment) Act establishes the Heritage Places Register. Places of natural heritage significance may be identified and conservation requirements specified.

Environmental Assessments and Inquiries may be initiated in relation to land use and development proposals.

NEW SOUTH WALES

Threatened Species Conservation Act 1995

The Act came into effect on 1 January 1996 and requires the preparation of recovery plans for endangered species (other than those presumed extinct), endangered populations, endangered ecological communities and vulnerable species.

Threat abatement plans are required to manage key threatening processes with a view to their abatement, amelioration or elimination. A Species Impact Statement is required when a development application is made on land which contains areas declared to be critical habitat under Part 3 of the Act or which is likely to significantly effect threatened species, populations or ecological communities or their habitats.

The preparation of a Recovery Plan for *L. discolor* is mandatory as the species has been listed as vulnerable.

COMMONWEALTH

Endangered Species Protection Act 1992

Under this legislation, *L. discolor* has been declared a vulnerable species. The Commonwealth is required to prepare and implement recovery plans for the species as it occurs in Commonwealth areas, and to cooperate with both the ACT and NSW authorities in implementing protection measures. The Commonwealth also encourages joint preparation and implementation of a recovery plan across State and Territory boundaries (ANCA 1994).

Consultation and Community Participation

It is appropriate that the conservation of *L. discolor* and its associated grassy woodland habitat is promoted through community liaison and public education appropriate to this species, given its infrequent occurrence in the ACT.

⇒ Environment ACT will include consideration of the conservation needs of *L. discolor* in its consultations with ACT lessees concerning management and use of woodlands of high conservation value on leased land.

Implementation, Evaluation and Review

RESPONSIBILITY FOR IMPLEMENTATION

Environment ACT (Wildlife Research and Monitoring) will have responsibility for coordinating implementation of this Action Plan subject to government priorities and resources.

⇒ Environment ACT will liaise with the National Recovery Team Coordinator to discuss longer-term conservation management issues in ACT.

EVALUATION

The Action Plan will be reviewed after three years. The review will comprise an assessment of progress using the following performance indicators:

- completion of commitments that can reasonably be expected to be finalised within the review timeframe (e.g. introduction of a statutory protection measure for a species, development of a management plan);
- completion of a stage in a process with a time line that exceeds the review period (e.g. design or commencement of a research program);
- commencement of a particular commitment that is of a continuing nature (e.g. design or commencement of a monitoring program for population abundance); and
- expert assessment of achievement of conservation objectives of the Action Plan.

The review will be reported to the ACT Flora and Fauna Committee. This will provide Environment ACT and the Flora and Fauna Committee an opportunity to assess progress, take account of developments in nature conservation knowledge, policy and administration and review directions and priorities for future conservation action.

The following conservation actions will be given priority attention:

- ⇒ implementation of management prescriptions to enhance the conservation status of the Yellow Box/Red Gum Grassy Woodland; and
- ⇒ identification of other woodland areas as potential habitat.

Acknowledgments

Material for this Action Plan was prepared by Anthony Overs.

Dr Jill Landsberg is a Senior Research Scientist with the CSIRO Division of Wildlife and Ecology.

The illustration of the species (Figure 1) was prepared for Environment ACT by Fiona Sivyer.

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List of Action Plans - October 1999

In accordance with Section 23 of the *Nature Conservation Act 1980*, the following Action Plans have been prepared by the Conservator of Flora and Fauna:

- No. 1: Natural Temperate Grassland - an endangered ecological community.
- No. 2: Striped Legless Lizard (*Delma impar*) - a vulnerable species.
- No. 3: Eastern Lined Earless Dragon (*Tympanocryptis lineata pinguicollis*) - an endangered species.
- No. 4: A leek orchid (*Prasophyllum petilum*) - an endangered species.
- No. 5: A subalpine herb (*Gentiana baeuerlenii*) - an endangered species.
- No. 6: Northern Corroboree Frog (*Pseudophryne pengilleyi*) - a vulnerable species.
- No. 7: Golden Sun Moth (*Synemon plana*) - an endangered species.
- No. 8: Button Wrinklewort (*Rutidosia leptorrhynchoides*) - an endangered species.
- No. 9: Small Purple Pea (*Swainsona recta*) - an endangered species.
- No. 10: Yellow Box/Red Gum Grassy Woodland - an endangered ecological community.
- No. 11: Two-spined Blackfish (*Gadopsis bispinosus*) - a vulnerable species.
- No. 12: Trout Cod (*Maccullochella macquariensis*) - an endangered species.
- No. 13: Macquarie Perch (*Macquaria australasica*) - an endangered species.
- No. 14: Murray River Crayfish (*Euastacus armatus*) - a vulnerable species.
- No. 15: Hooded Robin (*Melanodryas cucullata*) - a vulnerable species.
- No. 16: Swift Parrot (*Lathamus discolor*) - a vulnerable species.
- No. 17: Superb Parrot (*Polytelis swainsonii*) - a vulnerable species.
- No. 18: Brown Treecreeper (*Climacteris picumnus*) - a vulnerable species.
- No. 19: Painted Honeyeater (*Grantiella picta*) - a vulnerable species.
- No. 20: Regent Honeyeater (*Xanthomyza phrygia*) - an endangered species.
- No. 21: Perunga Grasshopper (*Perunga ochracea*) - a vulnerable species.
- No. 22: Brush-tailed Rock-wallaby (*Petrogale penicillata*) - an endangered species.
- No. 23: Smoky Mouse (*Pseudomys fumeus*) - an endangered species.
- No. 24: Tuggeranong Lignum (*Muehlenbeckia tuggeranong*) - an endangered species.

FURTHER INFORMATION

Further information on this Action Plan or other threatened species and ecological communities can be obtained from:

Environment ACT
(Wildlife Research and Monitoring)
Phone: (02) 6207 2126
Fax: (02) 6207 2122
Environment ACT Homepage:
<http://www.act.gov.au/environ>

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