

Flora & Fauna Guarantee Action Statement

#48

This Action Statement was first published in 1993 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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Dwarf Lantern-bush *Abutilon fraseri*



Dwarf Lantern-bush (*Abutilon fraseri*)
(Illustration by Mali Moir)



Distribution in Victoria (DSE 2002)

Description and Distribution

Dwarf Lantern-bush (*Abutilon fraseri* (Hook.) Walp) is a small, erect sub-shrub that grows to a height of 40 cm. It has alternate, round, ovate or cordate leaves about 1.5-5 cm long and covered with hairs of variable size. The calyx is broad and indented at the base with acute-lanceolate lobes that are longer than the tube. The corolla is yellow, about twice as long as the calyx with five petals borne singly on peduncles which lengthen to 2-4 cm as the fruit matures (Cunningham *et al.* 1981). The fruiting capsule has 10 fruitlets, each with two hairy seeds.

Abutilon fraseri is known from five sites within Victoria. These are located at Red Cliffs Scenic Reserve (approximately 50 plants), a bushland reserve (I262, LCC 1989) near Robinvale (approximately 5 plants), the Merbein Cemetery (17 plants), the Merbein Lookout on the River Murray Reserve (2 plants), and at the rear of Mildura Wines adjacent to the walkway

from Chaffey Landing (8 plants). The latter three sites are all within 4 km of each other, while 30 km and 70 km separates the other two sites from the Merbein populations. The taxon occurs in the arid and semi-arid areas of all Australian mainland states (Jessop & Toelken 1986), although it appears to be restricted in Victoria to Belah Woodlands—a unique community type which was previously widespread in north-western Victoria and which has been extensively cleared for agriculture. According to Brown (1986), *A. fraseri* was first found in 1950 on private property at Sunny Cliffs, near Mildura. The area has since been planted to grape vines and it is unlikely that any plants remain.

Conservation Status

Current Status

Gullan <i>et al.</i> (1990)	Endangered in Victoria
SAC (1991)	Threatened

The Dwarf Lantern-bush is listed under Schedule 2 of the *Flora and Fauna Guarantee Act 1988*.

Reasons for Conservation Status

Abutilon fraseri is considered to be endangered in Victoria because it is presently rare and has suffered a decline in abundance over the last 40 years. The colony previously known from Sunny Cliffs is now extinct, with other colonies reduced in numbers (H. Browne, Red Cliffs, pers. comm.).

It is reasonable to infer that the species also probably occurred in other parts of Sunraysia (H. Browne pers. comm.) but has declined further because of the selective clearing and alteration of its habitat. At present *A. fraseri* is prone to future threats from inappropriate human disturbance and low intensity grazing by rabbits.

In its final recommendations, the Scientific Advisory Committee (1991) has determined that the Dwarf Lantern-bush 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 abundance and distribution.

Major Conservation Objective

To conserve *A. fraseri* at the five known locations within Victoria by arresting decline and increasing the number of plants in the wild to 1000 within five years.

Management Issues

With the exception of the site adjacent to the Mildura Wines walkway at Merbein, all known sites of *A. fraseri* within Victoria are on public land.

Ecological Issues Specific to the Taxon

There is limited biological and ecological information about *A. fraseri* in Victoria. Parsons & Browne (1982) mention that the species can establish in large numbers after clearing or soil disturbance. This ability to colonise after disturbance, including fire, is shared with other malvaceous species from genera such as *Abutilon*, *Hibiscus* and *Sida* and means that representatives of the species may only be growing at a site for a few years in each century. The rest of the time, hard-coated seeds remain stored in the soil. Absence from potentially good sites therefore does not imply absence or abnormality, but does carry with it problems for future management.

The plant is apparently not readily grazed by stock although will be eaten as surrounding food resources diminish (Cunningham *et al.* 1981). This appears to have happened with the population near Robinvale, which has suffered a drastic reduction in numbers because of domestic stock grazing in the past.

The species is insect-pollinated and distance between populations is a management problem. The Red Cliff, Robinvale and Merbein populations are now isolated, with pollinators not moving between populations (i.e. not further than 30 km).

Each site has problems of human disturbance, including off-road driving, trampling and rubbish dumping, which may affect survival of the species. Vehicles are not directly damaging *A. fraseri* at Redcliffs Scenic Reserve, but they are contributing to the erosion of topsoil adjacent to the plants.

Wider Conservation Implications

Reducing inappropriate human disturbance will enhance other conservation values in the reserves and along the Murray River frontage generally.

Social and Economic Issues

There are only minor social and economic issues involved with the conservation of this species. Potential problems of inappropriate human disturbance can be overcome with proper management.

Multiple use of reserves. The activities of various authorities have the potential to conflict with *A. fraseri* protection. Authorities other than CNR which have land management responsibilities include the State Electricity Commission, Rural Water Commission, First Mildura Irrigation Trust, Sunraysia Water Board and Merbein Cemetery Trust. Protection of *A. fraseri* is compatible with these responsibilities, and will not increase costs provided there is effective co-ordination and planning. These authorities must ensure that *A. fraseri* is not inadvertently destroyed during any activity in the reserves.

Attitudes to public land. Attitudes of local residents towards reserves containing *A. fraseri* will be an important factor influencing effective conservation. On the one hand, there is community involvement in protecting the reserves. Merbein Rotary Club, Red Cliffs QUOTA club and local primary and secondary schools have actively participated in the protection and enhancement of Red Cliffs Scenic Reserve, Merbein Lookout and Chaffey Landing. On the other hand, some in the community treat public land in ways that are inconsistent with the status of reserves and which are illegal. Red Cliffs Scenic Reserve and Bushland Reserve 1262 have been degraded by illegal off-road driving and rubbish dumping.

Archaeological sites. The sites of *A. fraseri* are close to archeological sites and must be managed appropriately. The Mildura and District Anthropological Society recognise two separate occupational phases by Aboriginal people in the Red Cliffs Reserve.

Visitors and Recreation. Merbein Lookout, Chaffey Landing and Red Cliffs Scenic Reserve attract many visitors for nature walks, swimming and other recreational activities. *A. fraseri* protection does not affect these activities. Where necessary, the provision of fenced areas and walkways protects *A. fraseri* and other values appreciated by visitors.

Private Land. The site at Chaffey Landing is on land owned by Mildura Wines Ltd, who are keen to co-operate in protecting this site. *A. fraseri* may possibly occur on other private land where, if found, it can only be protected with the involvement and support of landholders.

Management Action

Previous Management Action

Red Cliffs Scenic Reserve

The Red Cliffs Scenic Reserve was Gazetted in 1991 as an 'area of natural beauty'.

Dr R. F. Parsons of La Trobe University and Mr H. Browne of Red Cliffs have been monitoring *A. fraseri* at the Red Cliffs site since 1979.

A draft management plan, cognisant of the importance of rare plants, has been written for the Red Cliffs Reserve by Mildura staff of CNR (Rajic 1990).

Rabbit warrens are regularly fumigated at the reserve to control rabbit numbers, which build up seasonally in the summer months.

Protective fencing was erected around some significant Aboriginal sites through the *Aboriginal Contract Employment in Conservation* (ACEC) program during October 1989.

Information about *A. fraseri* and the reserve has been conveyed to environmental, anthropological and historical interest groups in the Mildura region. These groups include the Red Cliffs QUOTA Club, Society for Growing Australian Plants-Mildura Group, the Aboriginal Cooperative, Merbein Cemetery Trust and the Lions Club of Mildura.

Bushland Reserve 1262

In December 1990, CNR requested that stock be removed from part of Crown C Allotment 21 (Parish of Bumbang) in order to protect *A. fraseri* and associated flora.

Both Reserves

Other management activities associated with the reserves have included occasional patrolling of access tracks by CNR officers.

The Mildura CNR nursery has succeeded in propagating *A. fraseri* from the Red Cliff Scenic Reserve using tip cuttings, although no replanting of the taxon into the wild has taken place.

Bushland Merbein Lookout and Mildura Wines (Chaffey Landing)

Access tracks (crushed rock and edging) have been constructed at the Merbein Lookout and Mildura Wines (Chaffey Landing) to eliminate the trampling of native vegetation by visitors.

Merbein Cemetery

The secretary of the Merbein Cemetery Trust has been informed of the existence and importance of *A. fraseri* at the site. Merbein Cemetery has also been included on CNR's list of cemeteries with conservation significance.

Intended Management Action

Propagation

CNR (Mildura Nursery) will propagate the species from cuttings and seed. Seed stock from each of the three

populations will be lodged at the Royal Botanic Gardens. Replanting in the wild will only be with local stock-i.e. material from the three separate populations will not be mixed. All sites will be replanted within three years.

Biological Information

Botanical experts within CNR and the Royal Botanic Gardens will remain up-to-date with biological and ecological information derived from outside Victoria that may be useful for managing, particularly for regenerating, this species.

RedCliffs Scenic Reserve

Extension/Liaison: Continue to inform community groups in the Mildura Region about rare plants, including *A. fraseri*.

Monitoring: Continue the monitoring program for *A. fraseri* with particular emphasis on any and all regeneration events.

Revegetation: Re-introduction of the plant to revegetated areas within the Conservation Zone in accordance with the draft management plan.

Enforcement: Regular monitoring of the reserve by CNR Technical Officers to discourage illegal activities such as soil removal and off-road driving.

Track Rationalisation: Control access of motorised vehicles and trail-bikes by reducing the number of tracks within the reserve.

Bushland Reserve 1262

Monitoring: Monitor the response of plants at the site to the cessation of grazing activities.

Merbein Populations

The populations are at Merbein Cemetery, Merbein Lookout and Mildura Wines (Chaffey Landing).

Monitoring: CNR Mildura Region Science Officers will monitor the changes in the growth and numbers of the plants at all three sites.

Management Agreement: Negotiate a management agreement between CNR and the Cemetery Trust to protect and enhance the Dwarf Lantern-bush at this site.

Other Desirable Management Actions

Revegetation

In consultation with the Merbein Cemetery Trust and Mildura Wines Ltd, CNR Mildura region will introduce further plantings of the taxon at these sites.

Survey

Encourage enthusiasts to search stony rises on basaltic plains between the You Yangs and Melbourne.

Legislative Powers Operating

Legislation

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

Crown Land (Reserves) Act 1958: provides for reserving areas of public land and for making a specific reservation status for existing public land.

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Conservation, Forests and Lands Act 1987: provides for the management of public land under the Act, the coordination of legislation administered by CNR and for the preparation of codes of practice.

Land Conservation (Vehicle Control) Act 1972: provides for regulation of off road vehicles on public land in the interests of preventing soil erosion and damage to public land.

Licence/Permit Conditions: Guidelines and Instructions

A permit for the collection of *A. fraseri* seed or any vegetative material will only be given for work which is in accordance with the revegetation objectives outlined in this document.

Permits will be issued to relevant CNR staff in the Mildura Region for the collection of seed and cuttings.

Consultation and Community Participation

Consultation by CNR with local conservation and interest groups or individuals will continue. Education, particularly of native plant enthusiasts, can promote conservation through increased awareness and appreciation.

Implementation, Evaluation and Review

The CNR Flora and Fauna Guarantee Officer at Mildura will be responsible for the co-ordination and implementation of this action statement and monitoring the effectiveness of actions taken.

Progress towards the conservation of this species and the associated vegetation communities will be monitored and assessed annually. Propagation efforts will also be reviewed annually.

The Action Statement will be reviewed and evaluated in five years.

Contacts

Management

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Biology

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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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