WHITE-FLOWERED PHILOTHECA

(*PHILOTHECA BASISTYLA*)

INTERIM RECOVERY PLAN

2004-2009

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Photograph: Karen Bettink – Florabase

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FOREWORD

Interim Recovery Plans (IRPs) are developed within the framework laid down in Department of Conservation and Land Management (CALM) Policy Statements Nos. 44 and 50.

IRPs outline the recovery actions that are required to urgently address those threatening processes most affecting the ongoing survival of threatened taxa or ecological communities, and begin the recovery process.

The Department is committed to ensuring that Critically Endangered taxa are conserved through the preparation and implementation of Recovery Plans or Interim Recovery Plans and by ensuring that conservation action commences as soon as possible and always within one year of endorsement of that rank by the Minister.

This Interim Recovery Plan will operate from July 2004 to June 2009 but will remain in force until withdrawn or replaced. It is intended that, if the taxon is still ranked Critically Endangered, this IRP will be reviewed after five years and the need for a full Recovery Plan will be assessed.

This IRP was given regional approval on 4 March 2004 and was approved by the Director of Nature Conservation on 22 July 2004. The allocation of staff time and provision of funds identified in this Interim Recovery Plan is dependent on budgetary and other constraints affecting CALM, as well as the need to address other priorities.

Information in this IRP was accurate at July 2004.

ACKNOWLEDGMENTS

The following people have provided assistance and advice in the preparation of this Interim Recovery Plan:

Anne Cochrane	Manager, CALM's Threatened Flora Seed Centre
Mike Fitzgerald	Former Manager and Special Projects Officer, CALM's Merredin District

Thanks also to staff of the W.A. Herbarium for providing access to Herbarium databases and specimen information, and CALM's Wildlife Branch for their assistance.

SUMMARY

Scientific Name:	*Philotheca basistyla*	**Common Name:**	White-flowered Philotheca
Family:	Rutaceae	**Flowering Period:**	August to October
CALM Region:	Wheatbelt	**CALM District:**	Merredin
Shire:	Trayning	**Recovery Team:**	Merredin District Threatened Flora Recovery Team (MDTFRT)

Illustrations and/or further information: Brown, A., Thomson-Dans, C. and Marchant, N. (Eds). (1998) *Western Australia's Threatened Flora*. Department of Conservation and Land Management, Western Australia; Mollemans, F.H (1993) *Drummondita wilsonii, Philotheca langei* and *P. basistyla* (Rutaceae), new species from south-west Western Australia. *Nuytsia*, 9 (1): 101-109; Western Australian Herbarium (1998) FloraBase - Information on the Western Australian Flora. Department of Conservation and Land Management, Western Australia. http://www.calm.wa.gov.au/science/.

Current status: *Philotheca basistyla* was declared as Rare Flora in 1998, under the Western Australian *Wildlife Conservation Act 1950* and was ranked as Critically Endangered (CR) in the same year. The taxon is also listed as Endangered under the Commonwealth *Environmental Protection and Biodiversity Conservation* Act 1999 (EPBC Act). It meets World Conservation Union (IUCN 2000) Red List Category 'CR' under criteria A1c; B1ab(iii)+2 ab(iii); C2a(ii) as there had been a suspected population size reduction of over 90% over the previous 10 years based on a decline in the quality of habitat; it occurs over a small geographic range with an extant of occurrence estimated to be less than 100 km^2 and area of occupancy less than 10 km^2, it is severely fragmented with just two populations known and a continuing decline has been observed in the quality of its habitat; .its population size is estimated to number fewer than 250 mature individuals and 90% of mature individuals are in one population. The main threats are road, track and firebreak maintenance, pipeline maintenance, poor regeneration, weed invasion, rabbits, stock movement and inappropriate fire regimes.

Critical habitat: The critical habitat for *Philotheca basistyla* comprises the area of occupancy of the known populations; similar habitat within 200 metres of known populations; remnant vegetation that links populations; additional nearby occurrences of similar habitat that do not currently contain the species but may have done so in the past and may be suitable for translocations.

Habitat critical to the survival of the species, and important populations: Given that this species is listed as threatened it is considered that all known habitat for wild and translocated populations is habitat critical.

Benefits to other species/ecological communities: The species is not located within any Threatened Ecological Communities (TECs).

International Obligations: This plan is fully consistent with the aims and recommendations of the Convention on Biological Diversity, ratified by Australia in June 1993, and will assist in implementing Australia's responsibilities under that convention. The taxon is not listed under any specific international treaty, however, and therefore this IRP does not affect Australia's obligations under any other international agreements.

Role and interests of indigenous people: There are no known indigenous communities involved in the management of areas affected by this plan. Input and involvement will be sought from any indigenous groups that have an active interest in the areas that are habitat for the taxon, and this is discussed in the recovery actions.

Social and economic impacts: The implementation of this recovery plan has the potential to have some minimal social and economic impact, as part of a population is located on private property.

Evaluation of the Plans Performance: CALM, in conjunction with the Recovery Team will evaluate the performance of this IRP. The plan is to be reviewed within five years of its implementation.

Habitat requirements: *Philotheca basistyla* is endemic to Western Australia and is restricted to a geographic range of only a few kilometres from Trayning and Kellerberrin. It grows in deep yellow sand in dense scrub heath vegetation (Brown *et al*. 1998).

Existing Recovery Actions: The following recovery actions have been or are currently being implemented -

1. All land managers have been notified of the location and threatened status of the species.
2. Surveying of the critical habitat to locate other populations of *Philotheca basistyla* was undertaken in 1997 and 2001 by staff from CALM's Merredin District.
3. Declared Rare Flora (DRF) markers have been installed at Population 1 and Subpopulation 2a.
4. Dashboard stickers and posters describing the significance of DRF markers have been produced and distributed.

5. The Merredin District Threatened Flora Recovery Team (MDTFRT) is overseeing the implementation of this IRP and will include information on progress in their annual report to CALM's Corporate Executive and funding bodies.
6. Staff from CALM's Merredin District regularly monitor all populations of this species.

IRP Objective: The objective of this Interim Recovery Plan is to abate identified threats and maintain and/or enhance *in situ* populations to ensure the long-term preservation of the taxon in the wild.

Recovery criteria

Criteria for success: The number of individuals within populations and/or the number of populations have increased by ten percent or more over the period of the plan's adoption under the EPBC Act.

Criteria for failure: The number of individuals within populations and/or the number of populations have decreased by ten percent or more over the period of the plan's adoption under the EPBC Act.

Recovery actions

1. Coordinate recovery actions.
2. Undertake rabbit control.
3. Undertake weed control.
4. Conduct further surveys.
5. Stimulate the germination of soil-stored seed.
6. Develop and implement a fire management strategy.
7. Monitor populations.
8. Collect seed and cutting material.
9. Seek improved security for populations.
10. Promote awareness.
11. Obtain biological and ecological information.
12. Propagate plants for translocation.
13. Undertake and monitor translocation.
14. Review the need for a full Recovery Plan.

1. BACKGROUND

History

The first known collection of *Philotheca basistyla*, housed at the Western Australian Herbarium, was made in 1990 by Frans and Neillie Mollemans between Trayning and Kellerberrin (Population 1). In 1997 a second population was located on a nearby roadside. Currently *Philotheca basistyla* is known from 2 populations that together contain approximately 170 adult plants.

Description

Philotheca basistyla is an erect shrub to 1 m tall and 80cm across. Plants typically have glossy or waxy dark green foliage. The leaves, up to 9 mm long and 1 to 1.5 mm wide, are thickened, circular in cross-section, glandular and ascending. There are numerous solitary white flowers at the ends of the branchlets (Brown *et al.* 1998).

Distribution and habitat

Philotheca basistyla is endemic to Western Australia where it is restricted to a geographic range of a few kilometres between Trayning and Kellerberrin. It grows in deep yellow sand in dense scrub heath vegetation (Brown *et al*. 1998).

Associated species include *Eucalyptus leptopoda, Grevillea eriostachya, Melaleuca cordata, Santalum acuminatum* and *Allocasuarina acutivalvis, Baeckea muricata, B. floribunda, Hakea francisiana, M. conothamnoides, Daviesia* sp., *Choretrum pritzelii, Phebalium tuberculosum, Pimelea* sp. and *Hibbertia* sp. (Mollemans 1993).

Habitat critical to the survival of the species, and important populations

Given that this species is listed as threatened it is considered that all known habitat is habitat critical. In addition all populations, including translocated populations, are considered important to the survival of the species. Recovery actions include survey for further populations that would lead to the identification of additional habitat critical.

Benefits to other species/ecological communities

The species is not located within any Threatened Ecological Community (TEC).

International Obligations

This plan is fully consistent with the aims and recommendations of the Convention on Biological Diversity, ratified by Australia in June 1993, and will assist in implementing Australia's responsibilities under that convention. The taxon is not listed under any specific international treaty, however, and therefore this IRP does not affect Australia's obligations under any other international agreements.

Role and interests of indigenous people

There are no known indigenous communities involved in the management of areas affected by this plan. Input and involvement will be sought from any indigenous groups that have an active interest in the areas that are habitat for the taxon, and this is discussed in the recovery actions.

Social and economic impacts

The implementation of this recovery plan has the potential to have some minimal social and economic impact, as a population is located on private property. Areas on private land that are considered to be 'habitat critical' may be regarded as having potential for uses other than conservation by landholders. Approaches that may minimise this potential impact could include land acquisition, covenants or management agreements.

Evaluation of the Plans Performance

CALM, in conjunction with the Merredin District Threatened Flora Recovery Team will evaluate the performance of this Interim Recovery Plan. The plan is to be reviewed within five years of its implementation. Any changes to management / recovery actions will be documented accordingly.

Critical habitat

Critical habitat is habitat identified as being critical to the survival of a listed threatened species or listed Threatened Ecological Community. Habitat is defined as the biophysical medium or media occupied (continuously, periodically or occasionally) by an organism or group of organisms or once occupied (continuously, periodically or occasionally) by an organism, or group of organisms, and into which organisms of that kind have the potential to be reintroduced (EPBC Act).

The critical habitat for *Philotheca basistyla* comprises:

- the area of occupancy of known wild or translocated populations;
- areas of similar habitat within 200 metres of known populations, ie. deep yellow sand in dense scrub heath vegetation (these provide potential habitat for natural range extension);
- remnant vegetation that surrounds or links populations (this is to provide habitat for pollinators or to allow them to move between populations); and
- additional occurrences of similar habitat that do not currently contain the taxon but may have done so in the past (these represent possible translocation sites).

Biology and ecology

The genus *Philotheca* is well known for its colourful, showy flowers with most taxa in the genus having horticultural potential. However, few species have proved reliable in cultivation, with a large percentage of seed frequently infertile and germination poor (Wrigley and Fagg 1979). Most species make excellent cut flowers and a considerable market has been established (Leigh *et al*. 1984).

Threats

Philotheca basistyla was declared as Rare Flora in 1998, under the Western Australian *Wildlife Conservation Act 1950* and was ranked as Critically Endangered (CR) in the same year. The taxon is also listed as Endangered under the Commonwealth *Environmental Protection and Biodiversity Conservation* Act 1999 (EPBC Act). It meets World Conservation Union (IUCN 2000) Red List Category 'CR' under criteria A1c; B1ab(iii)+2 ab(iii); C2a(ii) as there had been a suspected population size reduction of over 90% over the previous 10 years based on a decline in the quality of habitat; it occurs over a small geographic range with an extant of occurrence estimated to be less than 100 km^2 and area of occupancy less than 10 km^2, it is severely fragmented with just two populations known and a continuing decline has been observed in the quality of its habitat; .its population size is estimated to number fewer than 250 mature individuals and 90% of mature individuals are in one population. The main threats are road, track and firebreak maintenance, pipeline maintenance, poor regeneration, weed invasion, rabbits, stock movement and inappropriate fire regimes.

- **Road, track and firebreak maintenance activities** threaten both populations. Threats include grading, chemical spraying, construction of drainage channels and the mowing of roadside vegetation. Several of these actions also encourage weed invasion.

- **Pipeline maintenance** is a potential threat to Population 1. Such disturbance events may encourage weed invasion as well as causing damage to actual plants. The relevant authority has been made aware of the population.

- **Poor regeneration**, due to lack of appropriate disturbance, threatens all of the populations as no seedlings have been recorded since it was first identified in 1990.

- **Weed invasion** is major threat to both populations. Weeds suppress early plant growth by competing for soil moisture, nutrients and light. They also exacerbate grazing pressure and increase the fire hazard due to the easy ignition of high fuel loads, which are produced annually by many weed species.

- **Rabbits** (*Oryctolagus cuniculus*) are present in the area of both populations and although there is no evidence that the *Philotheca basistyla* is being grazed, rabbits are impacting on the habitat by causing soil disturbance through warren construction. Increased nutrient levels in the soil from rabbit droppings may also occur, and result in increased weed invasion. Grazing would have an impact on the establishment of young shoots of *P. basistyla* thereby limiting natural recruitment.

- **Stock movement** is a threat to road reserve populations. Stock (sheep) may trample or opportunistically graze the plants while being moved along the roads.

- **Inappropriate fire regimes** may affect the viability of *Philotheca basistyla*. It is not known what the fire response of the species is but frequent fire may kill plants before they reach maturity and replenish the soil seed bank. Conversely, it is likely that occasional fires are required for the species to regenerate from soil stored seed.

Summary of population information and threats

Pop. No. & Location	Land Status	Year/No. plants	Condition	Threats
1. NE of Kellerberrin	Shire Road Reserve	1991 67 1994 50+ 1997 50 1998 11+ 2001 6	Healthy/ Moderate	Road maintenance, weed invasion, rabbits, poor regeneration, inappropriate fire regimes, stock movement.
2a. NE of Kellerberrin	Shire Road Reserve	1997 50 1998 97 2001 162	Healthy	Road maintenance, weed invasion, rabbits, poor regeneration, inappropriate fire regimes, stock movement.
2b. NE of Kellerberrin	Private Property	2001 3	Healthy	Weed invasion, rabbits, poor regeneration, inappropriate fire regimes.

Guide for decision-makers

Section 1 provides details of current and possible future threats. Developments in the immediate vicinity of the populations or within the defined critical habitat of *Philotheca basistyla* require assessment. No developments should be approved unless the proponents can demonstrate that they will have no significant impact on the species, or its habitat or potential habitat.

2. RECOVERY OBJECTIVE AND CRITERIA

Objectives

The objective of this Interim Recovery Plan is to abate identified threats and maintain and/or enhance *in situ* populations to ensure the long-term preservation of the taxon in the wild.

Recovery criteria
Criteria for success: The number of individuals within populations and/or the number of populations have increased by ten percent or more over the period of the plan's adoption under the EPBC Act.
Criteria for failure: The number of individuals within populations and/or the number of populations have decreased by ten percent or more over the period of the plan's adoption under the EPBC Act.

3. RECOVERY ACTIONS

Existing recovery actions

All land managers have been notified of the location and threatened status of the species. The notification details the Declared Rare status of *Philotheca basistyla* and the legal responsibility to protect it.

Surveying of the critical habitat to locate other populations of *Philotheca basistyla* was undertaken in 1997 and 2001 by staff from CALM's Merredin District.

Declared Rare Flora (DRF) markers have been installed at Population 1 and Subpopulation 2a. These serve to alert people working in the vicinity to the presence of DRF, and the need to avoid work that may damage plants or their habitat. Dashboard stickers and posters describing the significance of DRF markers have been produced and distributed.

The Merredin District Threatened Flora Recovery Team (MDTFRT) is overseeing the implementation of this IRP and will include information on progress in their annual report to CALM's Corporate Executive and funding bodies.

Staff from CALM's Merredin District regularly monitor all populations of this species.

Future recovery actions

Where populations occur on lands other than those managed by CALM, permission has been or will be sought from appropriate land managers prior to recovery actions being undertaken. The following recovery actions are roughly in order of descending priority; however this should not constrain addressing any of the priorities if funding is available for 'lower' priorities and other opportunities arise.

1. Coordinate recovery actions

The MDTFRT is coordinating recovery actions for *Philotheca basistyla* and other Declared Rare Flora in the District and will include information on progress in their annual report to CALM's Corporate Executive and funding bodies.

Action: Coordinate recovery actions
Responsibility: CALM (Merredin District) through the MDTFRT
Cost: $1,800 per year.

2. Undertake rabbit control

Although there is currently no evidence of grazing on the plants themselves the soil around them is being disturbed by rabbit warren construction and this, combined with the increased nutrient levels and the presence of weed seed in their droppings, is encouraging weeds into the habitat. Rabbit baiting will be undertaken in and around this area.

Action: Undertake rabbit control
Responsibility: CALM (Merredin District) through the MDTFRT
Cost: $900 in first, second and third years

3. Undertake weed control

Weed control will be undertaken in consultation with the land managers. Appropriate methods of weed control are discussed in Brown and Brooks (2002) and may include hand weeding or localised application of herbicide. All applications of weed control will be followed by a report on the method, timing and success of the treatment against weeds, and the effect on *Philotheca basistyla* and associated native plant species. It is anticipated that native species in the habitat will regenerate after weed competition is removed.

Action: Undertake weed control
Responsibility: CALM (Merredin District) through the MDTFRT
Cost: $900 per year.

4. Conduct further surveys

Further surveys will be conducted for the species during its flowering period (August to October) in appropriate habitat, and on private lands wherever possible. Areas considered suitable for translocation will also be noted. Volunteers from the local community, Wildflower Societies and Naturalist Clubs will be encouraged to help in surveys supervised by CALM staff.

Action: Conduct further surveys
Responsibility: CALM (Merredin District) through the MDTFRT
Cost: $2,400 per year

5. Stimulate the germination of soil-stored seed

Burning, smokewater and soil disturbance may be effective in stimulating the germination of soil-stored seed. These trials will be conducted around existing populations in areas which have been cleared of weeds and in areas where *Philotheca basistyla* was known to previously occur.

Action: Stimulate the germination of soil-stored seed
Responsibility: CALM (Merredin District) through the MDTFRT
Cost: $3,400 in second, third and fourth years.

6. Develop and implement a fire management strategy

As the response of *Philotheca basistyla* to fire is not known, except where it is being used as a recovery tool, it will be prevented, where possible, from entering the area of populations. A fire management strategy will be developed to determine fire control measures and fire frequency.

Action: Develop and implement a fire management strategy
Responsibility: CALM (Merredin District) through the MDTFRT
Cost: $2,600 in first year and $1,000 in subsequent years.

7. Monitor populations

Annual monitoring of factors such as habitat degradation (including weed invasion and plant diseases), population stability (expansion or decline), pollination activity, seed production, recruitment, longevity and predation is essential. All populations will be inspected annually with special attention given to any impacts from salinity.

Action: Monitor populations
Responsibility: CALM (Merredin District) through the MDTFRT
Cost: $800 per year.

8. Collect seed and cutting material

Preservation of germplasm is essential to guard against extinction if wild populations are lost. Seed collections are also needed to propagate plants for future translocations. A small quantity of seed has been collected but more is required from both populations to maximise the genetic diversity of the *ex situ* collections. Cuttings will also be obtained to establish a living collection at the Botanic Garden and Parks Authority (BGPA).

Action: Collect seed and cutting material
Responsibility: CALM (Merredin District, TFSC) and the BGPA, through the MDTFRT
Cost: $4,300 in first year, and $2,900 in second year and third years.

9. Seek improved security for populations

Staff from CALM's Merredin District will continue liaising with land managers and landowners to ensure that populations are not accidentally damaged or destroyed. In particular, liaison with the Water Corporation will be

ongoing to ensure that maintenance of their water pipeline will not damage or destroy the taxa. Liaison with the farmers in the area is also essential to ensure stock are moved rapidly along the road and kept out of the reserve. Input and involvement will also be sought from any indigenous groups that have an active interest in areas that are habitat for the taxon.

Ways and means of improving the security of populations and their habitat will be investigated. For Population 2b, which occurs on private property, this may include conservation covenants.

Action: Seek improved security for populations
Responsibility: CALM (Merredin District) through the MDTFRT
Cost: $800 per year.

10. Promote awareness

The importance of biodiversity conservation and the need for the long-term protection of wild populations of this species will be promoted to the community through appropriate media. Formal links with local naturalist groups and interested individuals will also be encouraged. An information sheet that includes a description of the plant, its habitat, threats, recovery actions and photos will be produced.

A reply paid postal drop illustrating *Philotheca basistyla* and describing its distinctive features and habitat will be produced and distributed to residents in areas that contain suitable habitat for the species. Postal drops aim to stimulate interest, provide information about threatened species and provide a name and number to contact if new populations are located.

Action: Promote awareness
Responsibility: CALM (Merredin District, Corporate Relations) through the MDTFRT
Cost: $2,200 in first year, $700 in second year and $600 in subsequent years.

11. Obtain biological and ecological information

Improved knowledge of the biology and ecology of *Philotheca basistyla* will provide a better scientific basis for management of the wild populations. An understanding of the following is particularly necessary for effective management:

1. Soil seed bank dynamics and the effect of various disturbances (including fire), competition, rainfall and grazing on germination and recruitment.
2. The pollination biology of the species, and the requirements of pollinators.
3. The reproductive strategies, phenology and seasonal growth of the species.
4. The population genetic structure, levels of genetic diversity and minimum viable population size.
5. The impact of salinity on *Philotheca basistyla* and its habitat.

Action: Obtain biological and ecological information
Responsibility: CALM (Science Division, Merredin District) through the MDTFRT
Cost: $19,600 per year for the first 3 years.

12. Propagate plants for translocation

The Propagation of plants in readiness for translocation is essential as both known wild populations of *Philotheca basistyla* are under threat. Seed and/or cuttings will need to be taken for germination and propagation at the BGPA for planting in the following year.

Action: Propagate plants for translocation.
Responsibility: CALM (Merredin District) and the BGPA, through the MDTFRT.
Cost: $1,800 in the first and second years

13. Undertake and monitor translocation

Although translocations are generally undertaken under full Recovery Plans, the many threats to the wild populations of this species are indicative of the need for the development of a translocation proposal within the time frame of this IRP. This will be coordinated by the MDTFRT. Information on the translocation of threatened animals and plants in the wild is provided in CALM's Policy Statement No. 29 *Translocation of Threatened Flora and Fauna*. All translocation proposals require endorsement by the Director of Nature Conservation.

Monitoring of the translocation is essential and will be undertaken according to the timetable to be developed for the Translocation Proposal.

Action: Undertake and monitor translocation
Responsibility: CALM (Science Division, Merredin District) through the MDTFRT
Cost: $16,600 in second year, $9,600 in third year and $4,900 in subsequent years

14. Review the IRP and if required update or prepare a full Recovery Plan

If *Philotheca basistyla* is still ranked as Critically Endangered at the end of the fourth year of the five-year term of this Interim Recovery Plan, the need for a full Recovery Plan or a review of this IRP will be assessed and a plan prepared if necessary.

Action: Review the IRP and if required update or prepare a full Recovery Plan
Responsibility: CALM (WATSCU, Merredin District) through the MDTFRT
Cost: $23,400 in the fifth year (if full Recovery Plan is required)

4. TERM OF PLAN

This Interim Recovery Plan will operate from July 2004 to June 2009 but will remain in force until withdrawn or replaced. If the taxon is still ranked Critically Endangered after five years, the need to review this IRP or to replace it with a full Recovery Plan will be determined.

5. REFERENCES

Blackall, W.E. and Grieve, B.J. (1980) *How to Know Western Australian Wildflowers* Part IIIA. University of Western Australia Press, Nedlands, Western Australia.

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Department of Conservation and Land Management (1992) Policy Statement No. 44 *Wildlife Management Programs*. Department of Conservation and Land Management, Western Australia.

Department of Conservation and Land Management (1994) Policy Statement No. 50 *Setting Priorities for the Conservation of Western Australia's Threatened Flora and Fauna*. Department of Conservation and Land Management, Western Australia.

Department of Conservation and Land Management (1995) Policy Statement No. 29 *Translocation of Threatened Flora and Fauna*. Department of Conservation and Land Management, Western Australia.

Leigh, J. Boden, R. and Briggs, J. (1984) *Extinct and endangered plants of Australia*, Macmillan, South Melbourne.

Mollemans, F.H (1993) *Drummondita wilsonii, Philotheca langei* and *P. basistyla* (Rutaceae), new species from south-west Western Australia. *Nuytsia*, 9 (1): 101-109.

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World Conservation Union (2000) *IUCN red list categories prepared by the IUCN Species Survival Commission*, as approved by the 51st meeting of the IUCN Council. Gland, Switzerland.

Wrigley, J. W. and Fagg, M. (1979) *Australian Native Plants*. Collins, Sydney.

6. TAXONOMIC DESCRIPTION

Mollemans, F.H (1993) *Drummondita wilsonii, Philotheca langei* and *P. basistyla* (Rutaceae), new species from south-west Western Australia. *Nuytsia*, 9 (1): 101-109.

Philotheca basistyla is a much-branched, spreading *shrub* or *undershrubs*, to 1 m tall and up to 80cm across. *Leaves* exstipulate, shortly petiolate; lamina slender-clavate, ascending, c. 7 – 14 mm long, up to c. 1 – 1.5 mm thick (when fresh), adaxial surface grooved in the lower half, abaxial surface with distinct glandular verrucosities but glands not strongly exserted, apex rounded. *Flowers* solitary, terminal, on a peduncle c. 0.5-1.5 mm long. *Sepals* triangular, c. 0.5-1 mm long; margin faccid, minutely pubescent otherwise glabrous; centre thickened, glandular-verrucose. *Petals* white, elliptic c. 6(6.5) mm long, petiolate, glabrous outside, pubescent within, hairs longer centrally, an outer c. 1mm broad thickened mibrib, glandular-varrucose, pink at the apex fading to white at the base. *Stamina filaments* 10, alternately 5 c. 3mm long and 5 c. 3.5mm, fused in the basal half to form a tube, upper free filaments terete, densely pilose; *anthers* peltate, oblong, c. 0.5 mm long, pollen white. *Ovary* glabrous, obtuse carpels from a depressed cavity which contains the expanded style base. *Style* (when immature) basally expanded (pear shaped) above point of attachment with ovary upward, narrowing as style matures, densely pilose. *Fruit* not seen.

Australian Government

Department of the Environment and Heritage

ADDENDUM

White-Flowered Philotheca (*Philotheca basistyla*) Interim Recovery Plan 2004-2009

In adopting this plan under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), the Minister for the Environment and Heritage has approved the addition of the following information.

Critical Habitat

The plan identifies critical habitat as including areas located a set distance around known populations which contain habitat similar to that in which the species occurs, as well as areas that do not currently contain the species but may have done so in the past. These areas identified in the plan do not represent areas of critical habitat as defined under section 207A of the EPBC Act, nor do they represent habitats that are critical to the survival of the species identified pursuant to Section 270(2)(d) of the EPBC Act. Habitats identified in Section 270(2)(d) are limited to the area of occupancy of known populations.