

# KATANNING DISTRICT THREATENED FLORA MANAGEMENT PROGRAM

**Annual Report  
2003**

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For the Katanning District Threatened Flora Recovery Team



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## SUMMARY 2003

- *Caladenia melanema* nominated by Sue Patrick, *Muehlenbeckia horrida* subsp. *abdita*, *Gastrolobium lehmannii*, *Bentleya spinescens* and *Eremophila veneta* nominated by Andrew Brown, and *Acacia auratiflora* and *Lechenaultia pulvinaris* nominated by the Katanning District Flora Conservation Officer for changes to individual ranking/status at the 2003 Threatened Species Scientific Committee (TSSC) meeting with varying results.
- The Department's Threatened Flora Seed Centre (TFSC) collected seed from *Verticordia staminosa* subsp. *cylindracea* var. *cylindracea*, *Banksia oligantha*, *Conostylis seorsiflora* subsp. *trichophylla*, *Goodenia integerrima*, *Acacia leptalea* and *Muehlenbeckia horrida* subsp. *abdita*; as well as from the Priority taxa *Astartea clavifolia*, *Goodenia* sp. Lake King, *Pimelea halophila*, *Eremophila serpens*, *Bossiaea divaricata* and *B. cucullata*
- The Flora Conservation Officer collected seed of *Banksia oligantha* and *Verticordia staminosa* subsp. *cylindracea* var. *cylindracea*. A flora enthusiast collected seed of *Gastrolobium lehmannii* for the TFSC.
- New populations:
  - (CR) – potential habitat of *Eremophila verticillata* found
  - (EN) – one possible population of *Gastrolobium lehmannii*
  - (VU) – two populations of *Acacia leptalea*, one population of *Verticordia staminosa* subsp. *cylindracea* var. *cylindracea*, one population of *Roycea pycnophylloides*
  - (Priority Flora) – two of *Bossiaea divaricata*, one of *Cymbonotus preissianus*, one of *Velleia exigua* - new population for the district, several of *Persoonia brevirhachis*, *Grevillea newbeyi* and *Daviesia elongata* subsp. *implexa*, one of *Pimelea halophila*, one of *Acacia mutabilis* subsp. *incurva*, one possible of *Acacia brachyphylla* var. *recurvata* and *Villarsia submersa*, and one of *Myriophyllum petraeum*.
- Rare flora markers erected for a number of Priority and DRF populations.
- Interim Recovery Plans (IRP's) updated by WATSCU for *Muehlenbeckia horrida* subsp. *abdita*, *Goodenia integerrima*, *Hemigenia ramosissima* and *Dryandra mucronulata* subsp. *retrorsa*. The IRP for *Conostylis setigera* subsp. *dasys* written by the Katanning District Flora Conservation Officer. The Albany District wrote the IRP for *Centrolepis caespitosa*.
- A letter drop was produced by WATSCU for *Drakaea isolata* for distribution to the community and landowners through the postal system, by the Katanning District Flora Conservation Officer.
- Funds were provided to landowner to replace rundown fencing around a remnant containing *Dryandra mucronulata* subsp. *retrorsa* on his property.
- Liaison between Dave Coates and the Katanning District Flora Conservation Officer to have genetic analysis of *Verticordia staminosa* subsp. *cylindracea* carried out to determine genetic difference if any between the two varieties. Work to take place in 2004.
- Monitoring plots set up to observe effects of fire on one DRF and two Priority species.

## Recovery Team

The Katanning District Threatened Flora Recovery Team primary focus is the recovery of threatened flora within the Katanning District. The team is structured to allow for the encouragement, promotion and participation of associated groups in the protection of ecosystems across the District. This is done by linking private landowners, community volunteer groups, landcare groups, community catchment groups, local government authorities and other government agencies to carry out recovery projects.

The following are members of the Katanning District Threatened Flora Recovery Team and represent specific groups or agencies:

- 1) Wayne Cooper, Engineer/Manager of Works, representing the Shire of Woodanilling, with an interest and experience in protecting threatened flora in road reserves;
- 2) Mary Naisbitt, Councillor, representing the Shire of Lake Grace, and also a rare flora volunteer;
- 3) Lucy Skipsey, representing the Shire of Kent, also rare flora volunteer with two species of threatened flora on their property;
- 4) Val Crowley represents the community and rare flora volunteer contribution of the western portion of the District, she is also a volunteer with the WA Herbarium and has extensive knowledge of the flora in the Shire of West Arthur and surrounds;
- 5) Anne Rick represents the community and rare flora volunteer contribution (co-ordinates the Newdegate Rare Flora Group), with extensive botanical knowledge of the eastern portion of the District. Anne also represents the interests of private landowners within the District having threatened flora occurring on their property;
- 6) Mal Graham also representing the community; former District Operations Officer with the Department and Chair of this Recovery Team. Mal is currently working as a private environmental consultant within the Katanning District and has extensive knowledge of Wheatbelt flora and threatened flora management;
- 7) Anne Cochrane is Manager of the Department's Threatened Flora Seed Centre. Anne has extensive expertise in seed collection and research into germination of threatened flora in the District;
- 8) Andrew Brown, Coordinator (Flora) Western Australian Threatened Species and Communities Unit (WATSCU), a division of the Department;
- 9) Luke Sweedman represents the Botanic Gardens and Parks Authority (King's Park);
- 10) Raquel Carter is the WA Threatened Species Network Coordinator for the World Wide Fund (WWF) for Nature with interests in threatened flora management activities such as translocations and contact for possible funding of such projects;

- 11) Alan Kietzmann (Chairperson) represents the Katanning District of the Department of Conservation and Land Management, previously the Conservation Officer (Operations) now District Manager;
- 12) Bethea Loudon (Convenor) also represents the Katanning District of the Department of Conservation and Land Management, but more specifically the conservation, implementation and recovery of the District's threatened flora in her role as Flora Conservation Officer.

The participation of community groups, private land holders, local government agencies and government land managers is essential to ensure the protection of threatened species and the maintenance of biological diversity. The recovery team is structured to enhance the process of regional land recovery through broad community representation.

The Recovery Team also comprises of the following 'observers' to whom a general/open invitation is extended to all meetings. These people represent the wider community and are involved in voluntary threatened flora work in the District:

- 1) Jan Smith, rare flora volunteer from the western portion of the District;
- 2) Members of the Newdegate Rare Flora Group, including
  - Elsie Bishop      - Sam Walsh              - Rosemary Cugley
  - Annie Slarke      - Meighan Stewart
  - Lyn Taylor        - Judy Stewart

Other Technical advisers consulted as a matter of course during the recovery process and whom are invited to attend meetings, but are not formally members due to work commitments, include:

- 1) Dr David Coates, Principal Research Scientist with the Department of Conservation and Land Management, based at the WA Herbarium;
- 2) Dr Ken Atkins, Principal Botanist based at the Department's Wildlife Branch; and
- 3) Brett Beecham, Regional Ecologist for the Wheatbelt Region of the Department of Conservation and Land Management.

The Conservation Officer is responsible for implementing recovery actions listed in Interim Recovery Plans and the Katanning District Threatened Flora Management Plan. The Recovery Team oversees these activities, and identifies and prioritises those species in urgent need of further research and recovery actions. The Flora Conservation Officer implements those actions listed by the Team, as well as liaises with researchers, district flora volunteers, other government departments, local government authorities and the public on matters relating to threatened flora management in the Katanning District.

## **Staff and Funding**

A contract Conservation Officer position commenced in late May 1999 based at CALM's Katanning District Office. Up until May 2002, the position was supported by NHT Bushcare funding. NHT Endangered Species Program (ESP) provided funding for July 2002 to May 2003, with Biogene funding supporting the position in the interim.

The Department committed to full recurrent funding for this position in mid 2002 providing some funds to assist with the lapse between the ceasing of ESP funds in May 2003 and the start of the 2003/04 financial year. The Department is providing funds, at least for salary, for the now full-time, permanent Flora Conservation Officer position as of 2003.

In 2003, two applications for funding were submitted by the District to community catchment councils (Regional NRM groups) to provide funding to cover operational/running costs for the implementation of on-ground activities for threatened flora. The application through the Avon Catchment Council was successful, with \$27000 received for the 2003/04 financial year. Although not received until late 2003, \$8000 was received from the South West Catchment Council also for operational costs.

A further \$6200 was received from WATSCU to undertake surveys and field work to gather information for the preparation of IRP's for *Conostylis setigera* subsp. *dasy* (\$5000) and *Verticordia staminosa* subsp. *cylindracea* var. *cylindracea* (\$1200).

Several non-departmental people and private contractors/consultants were employed during 2003 using some of the above funds to assist with rare flora surveys and searches for new populations, and seed collection involving DRF taxa.


## OBJECTIVES

To implement recovery, research and management actions for Critically Endangered (CR), Endangered (EN) and Vulnerable (VU) flora in CALM's Katanning District. Assess the status, on a priority basis, if time permits, for approximately 240 other poorly known taxa (Priority Flora) in CALM's Katanning District.

IUCN threat categories for Western Australian Threatened Taxa 2003 rank 12 species within the district as Critically Endangered, 16 Endangered and 14 Vulnerable. (CALM – Official Flora Ranking List, March 2003).

### ***CRITICALLY ENDANGERED FLORA***

In 2003, twelve species in the Katanning District were ranked as Critically Endangered:

- *Acacia auratiflora*
- *Adenanthos pungens* subsp. *effusus*
- *Caladenia drakeoides*
- *Caladenia hoffmanii* subsp. *graniticola*
- *Conostylis setigera* subsp. *dasys*
- *Drakaea isolata*
- *Dryandra mucronulata* subsp. *retrorsa* 
- *Eremophila subteretifolia*
- *Eremophila verticillata*
- *Hemigenia ramosissima*
- *Verticordia fimbriolepis* subsp. *fimbriolepis*
- *Verticordia staminosa* subsp. *cylindracea* var. *erecta*

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Implementation of recovery actions for these taxa is summarised below:

#### ***Acacia auratiflora***

##### **Monitoring**

Plants found outside the repositioned markers of Population 1A (extension of population) were counted. Population 12 was surveyed for the full extent of the population and for total number of plants.

##### **Review**

Application for nomination for proposed downgrade to Endangered, written and submitted by Katanning District Flora Conservation Officer on behalf of the Katanning District Threatened Flora Recovery Team at the March 2003 TSSC meeting. Nomination unsuccessful, taxon remained as Critically Endangered.

##### **Public awareness**

A farmer from Borden emailed photographs and dropped in a sample of a plant he believed to be *Acacia auratiflora* after seeing a picture of the species in the rare flora display at the Newdegate Field Days. Unfortunately it was not the rare species but *Acacia consobrina* a similar looking species.

**Adenanthos pungens subsp. effusus**

**Monitoring**

Population 2B on private property surveyed in full by Flora Conservation Officer. Population 1 was surveyed by WATSCU contract staff.

**Protection from grazing**

Attempts to get the landowner to fence off Population 2B with financial assistance, unsuccessful.

**Caladenia drakeoides**

**Monitoring**

The Newdegate Rare Flora volunteers surveyed Population 16 for plant numbers in September. There was some confusion with another similar looking Spider orchid (*Caladenia mesocera*) at the same location, so exact numbers of the *C. drakeoides* are not known at this stage.

**Caladenia hoffmanii subsp. graniticola**

**Monitoring**

All three populations surveyed in October 2003. No plants were found at Population 4 (Lane Rock); 2 new plants found at Population 3 (Dragon Rock) in different spots to the 2001 survey; and a large increase in flowering plants at Population 5 (McDonald Rock), probably due to a better season/rainfall.

**Further Surveys**

Looked on two other granite outcrops in Dragon Rocks Nature Reserve, two on Mt Vernon Nature Reserve and two on Nature Reserve 29576 without success.

**Conostylis setigera subsp. dasys**

**Monitoring**

All populations surveyed extensively, populations are larger and more extensive than previously surveyed. Extensions of subpopulations and new subpopulations located.

**Information dissemination**

The Katanning District Conservation Officer researched and wrote the Interim Recovery Plan for this species.

**Drakaea isolata**

**Monitoring**

Although late in the season, a number of plants were located and permanently marked for future monitoring. The location was marked with fence droppers and GPS'd, and plants marked with small wire markers and aluminium tags. Photographs of plants and their position were taken to note movement and changes.

**Information dissemination**

Letter drop leaflet produced by WATSCU for distribution through the postal service in the Chinocup/Nyabing/Pingrup areas.

**Dryandra mucronulata subsp. retrorsa****Monitoring**

The Flora Conservation Officer surveyed Population 1.

**Review**

IRP reviewed by WATSCU and updated, ready for submission.

**Protection from grazing**

Funds provided to landowner to assist with the replacement of a rundown fence protecting a remnant containing a population of this species on his property.

**Eremophila subteretifolia****Monitoring**

Population 3 surveyed May 2003. Population 4 surveyed August 2003, the two plants were located which couldn't be found 2 years prior.

**Eremophila verticillata****Monitoring**

Surveyed/observed both populations in May and November 2003.

**Research trials**

Trial plots examined for germination in May and November 2003, no germination evident at either time.

**Further Survey**

Searched a couple of areas in the UCL to the south of Lake Cobham (known population site) for the possibility of finding new populations. Located appropriate habitat (same soil and vegetation type) on the southwest side of a lake on the northern boundary of the UCL, however there were no signs of the Eremophila and unfortunately the woodland area did not get burnt in 2001 when surrounding bushland did.

**Hemigenia ramosissima****Liaison**

Liaised with Gavin Johnston (MRWA) regarding proposed bridge works near the population at Beaufort River.

**Review**

IRP reviewed by WATSCU and updated, ready for submission.



**Verticordia fimbrialepis subsp. fimbrialepis**

No surveys were conducted in 2003.

**Verticordia staminosa subsp. cylindracea var. erecta**

No surveys of known populations were conducted in 2003.

**Further Surveys**

Looked on two other granite outcrops in Dragon Rocks Nature Reserve, two on Mt Vernon Nature Reserve and two on Nature Reserve 29576 without success. The volunteers also searched another two granite outcrops, one adjacent to Population 3 of var. *cylindracea*, the other a water reserve west of Varley, without success.

**ENDANGERED FLORA**

In 2003, sixteen species in the Katanning District, were ranked as Endangered:

- *Acacia depressa*
- *Adenanthos pungens* subsp. *pungens*
- *Adenanthos velutinus*
- *Anigozanthos bicolor* subsp. *minor*
- *Banksia oligantha*
- *Caladenia christeneae*
- *Caladenia dorrienii*
- *Centrolepis caespitosa*
- *Conostylis drummondii*
- *Conostylis seorsiflora* subsp. *trichophylla*
- *Gastrolobium lehmannii*
- *Goodenia integerrima*
- *Grevillea involucrata*
- *Jacksonia velveta*
- *Muehlenbeckia horrida* subsp. *abditata*
- *Thelymitra stellata*

Implementation of recovery actions for these taxa is summarised below:

**Acacia depressa**

**Monitoring**

Populations 3, 16, 17, and 20? in Tarin Rock Nature Reserve surveyed in 2003. Could not relocate Populations 1, 4 and 6. Observed Population 2, 18?.

**Protection from Fire Access Track Maintenance**

Sites visited in January in Tarin Rock Nature Reserve in preparation for upcoming maintenance of FATs, extent of populations marked with red tape. Tried to erect permanent DRF markers on populations for which they were absent and required, but ground was too hard and dry – postponed.

**Adenanthos pungens subsp. pungens**

No surveys were conducted in 2003.

**Adenanthos velutinus**

No surveys were conducted in 2003.

**Anigozanthos bicolor subsp. minor**

No surveys were conducted in 2003.

**Banksia oligantha**

**Monitoring**

Population 2C on private property surveyed in full. Population 2 was visited by WATSCU contract staff in 2003.

**Protection from grazing**

Attempts to get the landowner to fence off Population 2C with financial assistance, unsuccessful.

**Seed collection**

Seed collected from Population 2C by Flora Conservation Officer. Seed collected from Population 2A/2B by Anne Cochrane. All for storage and germination trials at the TFSC and proposed salinity trials.

**Caladenia christeneae**

**Monitoring**

Jim Parry, Rare Flora volunteer and avid orchid enthusiast from Frankland, surveyed Population 8 but was unable to locate any plants. No plants have been seen since at least 1995.

**Caladenia dorrienii**

**Monitoring**

Jim Parry surveyed Population 4, and observed Population 2B.

**Centrolepis caespitosa**

**Monitoring**

Tried to relocate Population 7 on private property but unable to find any plants of the rare Centrolepis, may have been too late in the season as the area had dried out considerably and exact location not known.

**Review**

IRP was written by Albany District, edits made by Katanning District Flora Conservation Officer.

### **Conostylis drummondii**

#### **Monitoring**

Contracted a private consultant to survey the majority of the District's populations to obtain information on the species status.

### **Conostylis seorsiflora subsp. trichophylla**

No surveys were conducted in 2003.

#### **Seed collection**

Some seed collected by Anne Cochrane in November for storage and germination trials at the TFSC.

### **Gastrolobium lehmannii**

#### **Further survey**

A University student reported a new population of *Gastrolobium lehmannii* on his grandfather's property near Cranbrook. Siting not yet confirmed as unable to get hold of the person.

#### **Protection from road maintenance**

Rare flora markers were erected for Populations 2 and 6.

#### **Seed collection**

A flora enthusiast from Kojonup collected seed from Populations 2, 5A, 5B and 6 on behalf of the Katanning District office and Anne Cochrane/the TFSC for storage and germination trials at the TFSC.

#### **Review**

Nominated by WATSCU for a change in ranking from Endangered to Vulnerable at the March 2003 meeting.

### **Goodenia integerrima**

#### **Seed collection**

Seed collected by Anne Cochrane from 3 populations in December for storage and germination trials at the TFSC.

#### **Review**

IRP reviewed by WATSCU and updated, ready for submission.

### **Grevillea involucrata**

#### **Monitoring**

Population 3A observed August 2003, plants with buds and flowers. No surveys were conducted in 2003.

### **Jacksonia velveta**

No surveys were conducted in 2003.

### **Muehlenbeckia horrida subsp. abdita**

#### **Monitoring**

Population 1 observed August 2003 - plants with buds, flowers and immature fruit. Six monthly monitoring of Population 1 and 2 were conducted with assistance from the Lake Bryde Assistant Catchment Officer in December – number of stems (living and dead) counted and canopy diameters measured in a number of existing plots.

No additional surveys for new populations or total plant counts of the known populations were conducted in 2003.

#### **Seed collection**

Seed collected by Anne Cochrane in November for storage and germination trials at the TFSC.

#### **Research**

Salinity level limits/tolerance determined by Honours? student. Germination and waterlogging trials conducted by Anne Cochrane.

#### **Review**

IRP reviewed by WATSCU and updated, ready for submission. Nominated by WATSCU for ranking as Critically Endangered at the March 2003 TSSC meeting. Taxon ranked as Endangered.

### **Thelymitra stellata**

No surveys were conducted in 2003.

### **VULNERABLE FLORA**

In 2003, fourteen species in the Katanning District were ranked as vulnerable:

- *Acacia lanuginophylla*
- *Acacia leptalea*
- *Allocasuarina tortiramula*
- *Bentleya spinescens*
- *Calectasia pignattiana*
- *Conostylis rogeri*
- *Diuris drummondii*
- *Eleocharis keigheryi*
- *Eremophila veneta*
- *Lechenaultia pulvinaris*
- *Orthrosanthus muelleri*
- *Roycea pycnophylloides*
- *Tribonanthes purpurea*
- *Verticordia staminosa* subsp. *cylindracea* var. *cylindracea*

Implementation of recovery actions for these taxa is summarised below:

**Acacia lanuginophylla**

**Monitoring**

Population 2A (Lockhart Nature Reserve) observed.

**Acacia leptalea**

**Monitoring**

Population 1A, 1B, and 3 surveyed.

**Further survey**

Two new populations located by the Flora Conservation Officer, one in Lake Magenta Nature Reserve and the other adjacent to road verge in Chinocup VCL.

**Fire response**

Monitoring plot set up to observe the effect of fire on, and fire response of *Acacia leptalea* following a buffer burn in Lake Magenta Nature Reserve. Area burnt May 2003, many seedlings observed in November 2003 - seedling location within plots recorded at this time.

**Protection from Fire Access Track maintenance**

Rare flora markers erected for both populations in Lake Magenta Nature Reserve.

**Seed collection**

Seed was collected from the two Lake Magenta Nature Reserve populations by Anne Cochrane, for storage and germination trials at the TFSC.

**Allocasuarina tortiramula**

No surveys were conducted in 2003.

**Bentleya spinescens**

**Further survey**

The extension of Population 1C through surveys for a town planning strategy.

**Review**

Nominated by Andrew Brown for downgrade from Endangered to Priority 4 at the March 2003 TSSC meeting. Nomination was successful but has not yet been endorsed by the Minister.

**Calectasia pignattiana**

No surveys of known populations were conducted in 2003.

**Conostylis rogeri**

**Monitoring**

Site visited to identify location, too late in season for survey, plants dried up.

**Diuris drummondii**

No surveys were conducted in 2003.

**Eleocharis keigheryi**

**Liaison**

Liaised with Gavin Johnston (MRWA) regarding proposed bridge works near the population at Beaufort River.

**Monitoring**

Tried to locate the population at Beaufort River without success, was not looking in correct area – followed up exact location details with Greg Keighery afterwards but too late in season to search for.

**Eremophila veneta**

**Monitoring**

Population 5A (Lockhart Nature Reserve) and 5B observed. Population 6 in parking bay surveyed – all 3 plants located as per surveys prior to 1998.

**Review**

Nominated by Andrew Brown for downgrade from Vulnerable to Priority 4 at the March 2003 TSSC meeting. Nomination was successful but has not yet been endorsed by the Minister.

**Lechenaultia pulvinaris**

**Review**

Application for nomination for downgrade from Vulnerable to Priority 4, written and submitted by Katanning District Flora Conservation Officer on behalf of the Katanning, Narrogin and Perth District Threatened Flora Recovery Teams at the March 2003 TSSC meeting. Nomination unsuccessful, status remained as Vulnerable.

**Orthrosanthus muelleri**

**Monitoring**

The new population north-east of Cranbrook (Albany District) surveyed in 2003.

**Protection from road maintenance**

The Katanning District Flora Conservation Officer accompanied Peter Denton (Opus International – MRWA contractor) to place markers on the population north-east of Cranbrook on the Great Southern Hwy.

**Protection from rail maintenance**

The Katanning District Flora Conservation Officer liaised with Peter Bothwell from John Holland (Westnet Rail contractor) regarding the placement of markers for the north-east Cranbrook population adjacent to Great Southern Hwy.

**Roycea pycnophylloides****Monitoring**

Monitoring plots set up in Populations 2A, 5 (Chinocup Nature Reserve) and the Lake King population, and possibly Population 9 (Mordetta Nature Reserve) by WATSCU. The Katanning District Flora Conservation Officer marked female plants at Population 2A/2B in order to collect seed in early 2004. No surveys of known populations were conducted in 2003.

**Further survey**

A new population was located by the Flora Conservation Officer in Lake Magenta Nature Reserve, further extending the species range.

**Tribonanthes purpurea****Monitoring**

Tried to locate the populations on Bunce King Rd and Doyle Rd to survey but too early in season and no sign of plants. Population 1 (Mt Vernon Nature Reserve) surveyed October 2003.

**Further surveys**

Searched granite outcrops in King Rock Nature Reserve for potential populations of the species without success. No new populations found.

**Verticordia staminosa subsp. cylindracea var. cylindracea****Monitoring**

Surveys were conducted in 2003 of Population 1 and 3 by members of the Newdegate Rare Flora Volunteer group.

**Further survey**

The volunteers also searched another two granite outcrops, one adjacent to Population 3 the other a water reserve west of Varley, without success. The Flora Conservation Officer located a new population in a nature reserve in October.

**Seed collection**

Seed was collected from Populations 4, 6 and 7 (a Narrogin population) by the Flora Conservation Officer, and from the new population and Population 1 by Anne Cochrane,

ready for genetic work proposed for 2004 to be overseen by Dave Coates, and for storage at the TFSC.

### **PRIORITY FLORA**

In 2003, 32 species in the Katanning District were ranked as Priority 1. Surveys were conducted for the following:

<i>Thomasia dielsii</i> (Albany population)	<i>Acacia microneura</i>
<i>Leucopogon</i> sp. Ongerup	

Rare flora markers erected for *Thomasia dielsii* (Albany population) and *Leucopogon* sp. Ongerup with Peter Denton (Opus International – MRWA contractor) on the Great Southern Hwy and Collie-Lake King Road.

Liaised with John Donnelly from MRWA regarding alterations to parking bay near Cranbrook with potential impact on *Acacia microneura*, surveyed this and a nearby population.

In 2003, 77 species in the Katanning District were ranked as Priority 2. Surveys were conducted on the following:

<i>Acacia drewiana</i> subsp. <i>minor</i>	<i>Persoonia brevirhachis</i>
<i>Velleia exigua</i>	<i>Pimelea halophila</i>
<i>Cymbonotus preissianus</i>	<i>Acacia mutabilis</i> subsp. <i>incurva</i>
<i>Gastrolobium rigidum</i>	<i>Caladenia melanema</i>
<i>Dryandra foliosissima</i>	<i>Nemcia effusa</i>
<i>Astartea clavifolia</i>	<i>Goodenia</i> sp. Lake King

Rare flora markers erected for *Acacia drewiana* subsp. *minor* and *Persoonia brevirhachis* with Peter Denton (Opus International – MRWA contractor) on the Collie-Lake King Road. A new taxon for the district located (*Velleia exigua*) and range extension for the species, the only other known populations occur in the Stirling Ranges.

Several new populations of *Persoonia brevirhachis* located on road reserves, a shire reserve and a nature reserve (species should be downgraded as is quite abundant and widespread in the Lake Grace/Newdegate area).

Liaised with members of Lake King Progress Committee July 2003 to discuss proposed tourist bay/rest area that has potential to affect a Population 1A of *Pimelea halophila*, population surveyed at the same time. Population 1A observed August 2003, plants with buds and flowers. A new population of *Pimelea halophila* was located by the Flora Conservation Officer in Lake Magenta Nature Reserve.

A new population of *Cymbonotus preissianus* was found by Greg and Bronwen Keighery in Warrenup Nature Reserve. The species is only known from type collections made in the last century in WA and from a collection near Borden in 1966.

A new population of *Acacia mutabilis* subsp. *incurva* reported by Land For Wildlife Officer, Steve Newbey, on his Ongerup property.

Population of *Gastrolobium rigidum* near Tarin Rock surveyed September 2003.

The population of *Caladenia melanema* surveyed by Flora Conservation Officer in October, plants had pretty much finished flowering. Seed collected by Kings Park?

Observed a population of *Dryandra foliosissima* and placed Environmentally Sensitive Area (ESA) markers on power poles in Tarin Rock Nature Reserve with a consultant for Western Power.



Observed a population of *Nemcia effusa* and placed ESA markers on power poles in another nature reserve with a consultant for Western Power.  
 Seed of *Astartea clavifolia* was collected by Anne Cochrane for storage and germination trials at the TFSC.  
 Seed of *Goodenia* sp. Lake King was collected by Anne Cochrane for storage and germination trials at the TFSC.

In 2003, 84 species in the Katanning District were ranked as Priority 3. Surveys were conducted on the following:

<i>Grevillea newbeyi</i>	<i>Bossiaea divaricata</i>
<i>Daviesia elongata</i> subsp. <i>implexa</i>	<i>Acacia brachyphylla</i> var. <i>recurvata</i>
<i>Stylidium pulviniforme</i>	<i>Lechenaultia acutiloba</i>

Monitoring plot set up to observe the effect of fire on, and fire response of *Grevillea newbeyi* and *Bossiaea divaricata* following a buffer burn in Lake Magenta Nature Reserve.  
 New populations of *Daviesia elongata* subsp. *implexa* (3) and *Grevillea newbeyi* (3+) located.  
 New subpopulation of *Bossiaea divaricata* located by Katanning District Acting District Conservation Officer and casual Reserves Officer in a nature reserve. Two new populations located by Flora Conservation Officer. Rare flora markers erected for three populations of *Bossiaea divaricata* in Lake Magenta Nature Reserve on Fire Access Tracks.  
 A possible new population of *Acacia brachyphylla* var. *recurvata* located on a road reserve.  
 Two populations of *Lechenaultia acutiloba* surveyed and rare flora markers erected for both on Fire Access Tracks in Lake Magenta Nature Reserve.  
 A small amount of seed of *Bossiaea divaricata* was collected by Anne Cochrane for storage and germination trials at the TFSC.

In 2003, 40 species in the Katanning District were ranked as Priority 4. Surveys were conducted on the following:

<i>Eremophila serpens</i>	<i>Villarsia submersa</i>
<i>Myriophyllum petraeum</i>	<i>Caladenia integra</i>

*Eremophila serpens* - Population at Lockhart Nature Reserve observed May 2003, population at Lake Ace surveyed August 2003 (population found to be more extensive). Seed of *Eremophila serpens* was collected by Anne Cochrane for storage and germination trials at the TFSC.  
 Possible population of *Villarsia submersa* reported by Tambellup Bushcare Officer. This would mean a new species for the District. Siting not yet confirmed.  
 A new population of *Myriophyllum petraeum* located in a rock pool on Nature Reserve 29576 in October.  
 Jim Parry tried to locate Population 7 of *Caladenia integra* but could not find any plants where originally located.

#### **Full and Interim Recovery Plans for the Katanning District.**

An Interim Recovery Plan was written in 2003 by the Katanning District Flora Conservation Officer for *Conostylis setigera* subsp. *dasys* (Critically Endangered).

#### Critically Endangered

*Acacia auratiflora*, *Adenanthos pungens* subsp. *effusus*, *Caladenia drakeoides*, *Caladenia hoffmanii* subsp. *graniticola*, *Conostylis setigera* subsp. *dasy*, *Drakaea isolata*, *Dryandra mucronulata* subsp. *retrorsa*, *Eremophila subteretifolia*, *Eremophila verticillata*, *Hemigenia ramosissima*, *Verticordia fimbriolepis* subsp. *fimbriolepis* and *Verticordia staminosa* subsp. *cylindracea* var. *erecta* have Interim Recovery Plans.

#### Endangered

*Anigozanthos bicolor* subsp. *minor*, *Centrolepis caespitosa*, *Conostylis seorsiflora* subsp. *trichophylla*, *Goodenia integerrima*, and *Muehlenbeckia horrida* subsp. *abdit*a have Interim Recovery Plans.

#### Vulnerable

*Eremophila veneta*, *Conostylis rogeri*, *Orthrosanthus muelleri*, and *Roycea pycnophylloides* have Interim Recovery Plans. Interim Management Guidelines exist for *Acacia leptalea*.

No Full Recovery Plans exist for any of the Katanning District's Declare Rare Flora.

#### Translocations

No new translocations were initiated or developed in 2003.

Interest from a private landowner in re-establishing a population of *Dryandra mucronulata* subsp. *retrorsa* on their property where it was once thought to occur, has been registered. The site has been revegetated by the landowner and were looking in to writing up a translocation proposal. No more details have come to light since.

Monitoring of the *Eremophila verticillata* continues for any signs of germination, so far this has been unsuccessful. A potential site for a future wild translocation of this species was located in fringing vegetation of a lake to the south of the known populations.

#### Education, Publicity and Sponsorship

During 2003, the Katanning District was involved in a partnership with the local community group, the Newdegate Rare Flora Volunteers and a number of individual volunteers and flora enthusiasts.

Attended the Newdegate Field Days in September where a Rare Flora display was held. This showed the DRF in the district, pictures of rare plants and explained recovery actions and the need to protect rare flora. It also involved discussions with public and the distribution of species posters.

#### Conclusion

The Katanning District Threatened Flora Management Program has been very successfully implemented to date. Fifteen Interim Recovery Plans have been completed since a Flora Conservation Officer began.

A 12-month, full time Conservation Officer position commenced in May 1999 based at CALM's Katanning District Office accessing funds for 3 years through the Natural Heritage Trust's Bushcare Program. This funding source ceased in May 2002. A successful application to the Endangered Species Program provided funding from July 2002 to May 2003, with Biogene funds covering the lapse in between. These funds enabled the Recovery Team to implement recovery actions on plant taxa in most need of protection and recovery.

The Flora Conservation Officer position is now permanently funded by the Department. Full position funding by NHT no longer occurs. Other small amounts of funding will be sought from external sources to assist with the implementation of on-ground activities. This permanent funding of the position will ensure the recovery of the District's threatened flora will continue on a full-time basis, and enable more long term planning and approaches to managing threatened flora in the Katanning District.

The Katanning District Threatened Flora Recovery Team is working well and has members who realise the important role of community involvement and education, along with the importance of protecting rare flora.

**Proposed major activities for the Recovery Team in 2004 include:**

- Review the Interim Recovery Plan of *Acacia auratiflora*
- Write or initiate an Interim Recovery Plan for *Gastrolobium lehmannii*
- Review the ranking/status of *Conostylis drummondii* and depending on the outcome, make recommendations to the Threatened Species Scientific Committee
- Complete the Final Report for the *Verticordia fimbrialepis* subsp. *fimbrialepis* translocation trial and address requirement for wild translocation
- Undertake fieldwork – surveys and threat analysis – for 2 Endangered and 3 Vulnerable species for which WATSCU will be writing IRP's
- Implement weed and rabbit control at a number of populations
- Search for new populations of DRF
- Concentrate on surveys of a number of Priority species
- Review future funding requirements
- Review and re-assign priorities for the District Flora Management Plan