

# Moora District Threatened Flora Recovery Team Annual Report 2005

## Summary

This report summarises progress made by members & associates of the Moora District Threatened Flora Recovery Team (the Recovery Team) in 2005 towards the recovery of threatened flora species and Threatened Ecological Communities (TECs) occurring within CALM's Moora District.

Details of recovery actions for most of the District's threatened flora species are summarised in WA Wildlife Management Program No. 28, entitled *Declared Rare and Poorly Known Flora in the Moora District*, by SJ Patrick and AP Brown. The principal District contact for threatened flora issues is Gina Broun, Conservation Officer for the Moora District CALM.

Within the District there are 77 species of Declared Rare Flora (DRF), of which 28 are considered Critically Endangered, 21 Vulnerable and 28 are Endangered (IUCN red list categories). There are a further 305 Priority species and 7 TECs, of which 6 are ranked as Endangered and the other as Vulnerable<sup>1</sup>.

The Recovery Team meets twice per year and throughout the year its' members work in partnership towards proactive conservation of threatened species and ecological communities. The many and varied accomplishments by team members are testament to its diverse membership and the positive working relationship fostered between them.

In 2005, a suite of recovery actions were implemented including: surveys for unrecorded populations of threatened flora and occurrences of TECs; monitoring of known natural and translocated populations; establishment of new translocations; maintaining and expanding existing translocated populations; seed and propagule collection; genetic research; community education; liaison with land managers; procuring external funds for on-ground works; industry consultation and authorship of Interim Recovery Plans (IRPs).

## Recovery Team Membership

In addition to the full Recovery Team members<sup>2</sup> (as listed), other parties who are involved in the management of threatened flora are also encouraged to attend the biannual meetings. These representatives are listed as "Extended Working Group" in the following table

<b>MEMBERS</b>		
<b>Position (area of expertise)</b>	<b>Representing</b>	<b>Currently filled by</b>
Conservation Officer	CALM, Moora District	Gina Broun (A/Chair)
Nature Conservation Coordinator	CALM, Moora District	Rebecca Carter
Research Scientist (Translocations)	CALM, WA Herbarium	Leonie Monks
Senior Research Scientist (Priority Flora)	CALM, WA Herbarium	Sue Patrick
Technical Officer (Seed Store)	CALM, WA Herbarium	Andrew Crawford
Coordinator, Threatened Flora	CALM, WATSCU	Andrew Brown
Project Officer (TECs)	CALM, WATSCU	Rosemary Rees
Herbarium representative	Dandaragan Herbarium	Rep - rotating
Herbarium representative	Jurien Bay Regional Herbarium	Rep - rotating
Roadside Management Officer	Main Roads WA	Larry Trinder
Community representative	Shire of Carnamah	Allan Tinker
Shire representative	Shire of Carnamah	Malcolm Pumphrey

<sup>1</sup> Details of the current listings of individual species and communities are available from CALM Moora District. They have not been included due to the required brevity of this report.

<sup>2</sup> As endorsed by CALM's Director of Nature Conservation, March 2004

Community representative	Shire of Coorow	Joy/Don Williams
Shire representative	Shire of Coorow	Peter Gillis
Community representative	Shire of Dandaragan	Iain Wilson
Shire representative	Shire of Dandaragan	Joe Furnace
Community representative	Shire of Irwin	Allan Tinker
Shire representative	Shire of Irwin	Aaron Wotton
Community representative	Shire of Moora	Vacant
Shire representative	Shire of Moora	John Grey
Community representative	Shire of Three Springs	Jenny Borger
Shire representative	Shire of Three Springs	Charles Strahan
Community representative	Shire of Victoria Plains	Vacant
Shire representative	Shire of Victoria Plains	Allen Kent
NRM Group representative -West Midlands	West Midlands NRMG	Rep - rotating
Per Way Superintendent	Westnet Rail	Bruce Eldridge
Threatened Species Network Coordinator	World Wide Fund for Nature	Kat Miller
<b>EXTENDED WORKING GROUP</b>		
<b>Position (area of expertise)</b>	<b>Representing</b>	<b>Currently filled by</b>
Project Officer	CALM, Species and Communities Branch	Gillian Stack
Senior Research Scientist (Propagation)	Kings Park Botanic Gardens	Eric Bunn
Environmental Management Coordinator	Western Power	John Morrell
Per Way Supervisor	Westnet Rail	John Stevens

### **Assessment Against Criteria for Success**

At present there are 23 current IRPs for threatened flora species and 6 current IRPs for TECs that occur within the Moora District. Each of these plans stipulates criteria for the recovery of the species or community, which aim to quantify the success or failure of the plan and its implementation. The standard criteria are as follows:

**Criteria for success:** The numbers of individuals within populations and/or the number of populations has increased.

**Criteria for failure:** The numbers of individuals within populations and/or the number of populations have decreased.

As the implementation of IRPs are long term (i.e. 3 - 5 years), it is often not possible to quantify their success or failure on an annual basis. Where there have been significant observed increases or decreases in the number of individuals or known populations within 2005, these are outlined in the following section.

### **Major Recovery Actions Completed in 2005**

Highlights of major recovery actions completed in 2005 are listed below:

#### **Survey results - DRF**

New population of the following species were found: *Acacia aprica*, *Leucopogon marginatus*, *Calothamnus accedens*, *Grevillea bracteosa*, *Spirogardnera rubescens*, *Eucalyptus crispata*, *Eucalyptus rhodantha* var. *rhodantha*, and *Verticordia spicata* subsp. *squamosa*

#### **Survey results – Priority Flora**

New populations of the following species were found: *Acacia flabellifolia*, *Calothamnus brevifolius*, *Dryandra cypholoba*, *Dryandra fraseri* var. *oxycedra*, *Dryandra borealis* subsp. *elator*, *Dryandra speciosa* subsp. *macrocarpa*, *Dryandra stricta*, *Dryandra tortifolia*, *Eucalyptus diminuta*, *Gastrolobium callistachys*, *Guichenotia alba*, *Guichenotia quasicalva*,

*Isopogon tridens*, *Verticordia penicillaris*, *Thryptomene* sp. *Mingenew*, *Banksia chamaephyton*, *Stylidium tinkeri*

### **Survey results - TECs**

Several new occurrences of the Organic Mound Springs were found in the shire of Three Springs and comprehensive flora surveys of these sites were made.

### **Survey results – significant range extensions (general flora species)**

Through survey efforts, range extensions to the following species were found: *Gastrolobium trilobum*, *Chaetanthus aristatus*, *Comesperma flavum*, *Melaleuca Isopogon*, *Thelymitra macrophylla*, *Petrophile trifurcata*, *Drosera barbigera*, *Hemigenia barbata*, *Hakea meisneriana*, *Acacia flabellifolia*, *Triglochin linearis* (Aquatic plant), *Cladia ferdinandii* (Lichen), *Eucalyptus flocktoniae* subsp. *flocktoniae*, *Spiculea ciliata* (elbow orchid), *Prasophyllum drummondii*.

### **Translocated populations - establishment and repeat plantings**

*Grevillea humifusa*, *Synaphea quartzitica*, *Grevillea althoferorum*, *Acacia aprica*, *Acacia cochlocarpa*

### **Translocated populations – maintenance & monitoring**

*Acacia aprica*, *Acacia cochlocarpa*, *Eremophila nivea*, *Daviesia bursarioides*, *Grevillea humifusa*, *Verticordia albida* & *Grevillea batrachioides*

### **Seed and propagule collection**

DRF species including - *Acacia aprica*, *Acacia cochlocarpa*, *Darwinia carnea*, *Gastrolobium appressum*, *Grevillea batrachioides*, *Grevillea humifusa*, *Patersonia spirifolia*, *Grevillea calliantha*, *Thomasia* sp. *Green Hill*, *Verticordia spicata* subsp. *squamosa*, *Acacia chapmanii* ssp. *chapmanii*

Initial collection of seed of habitat species associated with specific DRF species: *Eremophila scaberula*, *Grevillea batrachioides*, *Chorizema humile*

### **Genetic research**

Genetic analysis of *Eucalyptus absita*, *Eremophila microtheca* & *Grevillea althoferorum* populations was undertaken

### **Educational activities**

Hosted CALM's 2005 Flora Management Course in Moora District, which contributed 160 hours of flora survey time in a previously poorly understood area of Unallocated Crown Land, proposed to become Conservation Estate.

### **Weed control**

Undertaken at populations of the following DRF species: *Caladenia elegans*, *Wurmbea tubulosa*, *Synaphea quartzitica*, *Acacia aprica*, *Eremophila scaberula*

### **Liaison with land managers/Industry consultation**

Liaison with staff of Main Roads WA, Western Power, Westnet Rail, CSR Emoleum, various mine sites and with employees of the shires of Dandaragan, Three Springs, Moora and Coorow towards better management and identification of roadside DRF species.

### **Externally funded projects**

Coordination and participation in a regional pilot project funded by the Natural Heritage Trust (\$165,000) through the regional delivery system by the Northern Agricultural Catchment Council. The project is entitled *Implementation of Conservation Actions for Threatened Flora and Ecological Communities in the Geraldton to Shark Bay Sandplain and the Mount Lesueur Eneabba Biodiversity Hotspots* (033089), the 'Hotspots project'.

The project ran throughout 2005 and is set for completion in mid 2006. Major project outcomes were the successful survey of new populations of DRF, locating new occurrences of TECs, increased understanding of different TEC types, significant community engagement, protection of DRF populations; as well as contributions towards the maintenance and creation of DRF translocations, seed collection of DRF and priority species.

Providing technical advice to the West Midlands NRM group towards a proposed future project involving the construction of DRF educational gardens within the Dandaragan townsite

#### **Reports/Plans completed**

- *Investigation into the hydrology of the Bentonite Lakes TEC*<sup>3</sup>, Colin Walker (consultant hydrologist) 2005
- *Biodiversity Hotspots Project Report - Rare flora and TEC surveys in Three Springs and Carnamah shires*, Jenny Borger (contract botanist) 2005
- *DRAFT Interim Recovery Plan – Eucalyptus absita*, Gina Broun (CALM) 2005
- *DRAFT Interim Recovery Plan – Organic Mound Springs TEC*, Rosemary Rees (CALM) 2005

#### **Improved security of tenure**

Both a shire reserve and a private property block containing occurrences of the Organic Mound Spring TEC were negotiated for purchase and vested as Conservation Estate.

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<sup>3</sup> Funded through the Hotspots project, completed by consultant hydrologist