

Moora District Threatened Flora Recovery Team Annual Report 2006

Summary

This report summarises progress made by members and associates of the Moora District Threatened Flora Recovery Team (the Recovery Team) in 2006 towards the recovery of threatened flora species and Threatened Ecological Communities (TECs) occurring within the Department of Environment and Conservation's (DEC) Moora District.

Details of recovery actions for most of the Moora 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 (2001). The principal District contact for threatened flora issues is Benson Todd, Conservation Officer - Flora for the Moora District DEC.

Within the Moora District there are 72 species of Declared Rare Flora (DRF), of which 26 are considered Critically Endangered, 28 Endangered and 18 are Vulnerable (IUCN red list categories). There are a further 305 Priority flora species and 9 Threatened Ecological Communities (TECs), of which 1 is ranked Critically Endangered, 6 are ranked as Endangered and the 2 as Vulnerable¹ (IUCN red list categories).

The Recovery Team meets twice per year and throughout the year its members work in partnership towards best practice management of threatened flora 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 2006, 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; preparations for new translocations; maintaining and expanding existing translocated populations; seed and propagule collection; 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 (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

MEMBERS		
Position (area of expertise)	Representing	Currently filled by
Conservation Officer - Flora	DEC, Moora District	Benson Todd (A/Chair)
Nature Conservation Coordinator	DEC, Moora District	Rebecca Carter
Research Scientist (Translocations)	DEC, WA Herbarium	Leonie Monks/Tania Jackson
Senior Technical Officer (Ex-situ Conservation)	DEC, Threatened Flora Seed Centre	Andrew Crawford
Coordinator, Threatened Flora	DEC, Species and Communities Branch	Andrew Brown
Project Officer (TECs)	DEC, Species and Communities Branch	Monica Batista
Herbarium Representative	Dandaragan Herbarium	Rep - rotating
Herbarium Representative	Jurien Bay Regional Herbarium	Rep - rotating
Roadside Management Officer	Main Roads WA	Nigel Rowe
Environmental Officer	Works Infrastructure	Marie Jarvis

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

Community Representative	Shire of Carnamah	Allan Tinker
Shire Representative	Shire of Carnamah	Malcolm Pumphrey
Community Representative	Shire of Coorow	Don and Joy Williams
Shire Representative	Shire of Coorow	Peter Gillis
Community Representative	Shire of Dandaragan	Iain Wilson
Shire Representative	Shire of Dandaragan	Mike Harvey
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
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
EXTENDED WORKING GROUP		
Position (area of expertise)	Representing	Currently filled by
Senior Principal Research Scientist	DEC, Science Division	Dave Coates
Project Officer	DEC, Species and Communities Branch	Gillian Stack
Conservation Officer	DEC, Moora District	Kathy Himbeck
Senior Research Scientist (Propagation)	Kings Park Botanic Gardens	Eric Bunn/Amanda Shade
Environmental Management Coordinator	Western Power	John Morrell
Per Way Supervisor	Westnet Rail	John Stevens

Assessment Against Criteria for Success

At present there are 21 current IRPs for threatened flora species and 7 current IRPs for TECs that occur within the Moora District. Each of these plans stipulates criteria for the recovery of the species or community, and these 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 is 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 2006, these are outlined in the following section.

Major Recovery Actions Completed in 2006

Highlights of major recovery actions completed in 2006 are listed below:

Survey results - DRF

New population of the following species were found; *Leucopogon marginatus*, *Calothamnus accedens*, *Spirogardnera rubescens*, *Eucalyptus rhodantha* var. *rhodantha*, *Grevillea christineae*, *Chorizema humile*, *Darwinia chapmaniana*, *Stawellia dimorphantha*, *Verticordia spicata* subsp. *Squamosa*, *Tetrateca nephelioides*, *Eucalyptus johnsoniana*, *Hakea megalosperma*, and *Paracaleana dixonii*.

Survey results – Priority Flora

New populations of the following species were found: *Gastrolobium rotundifolium*, *Baeckea* sp. Bunney Rd, *Dryandra stricta*, *Eucalyptus diminuta*, *Verticordia blepharophylla*,

Verticordia penicillaris, *Baeckea* sp. Moora, *Conostylis caricina* sp *elachys*, *Stylidium hymenocraspedum* Wege ms, *Anthotium junciforme*, *Stylidium tinkeri*, *Frankenia glomerata*, *Pityrodia viscida*, *Homalocalyx chapmanii*, *Verticordia muelleriana*, *Acacia isoneura* subsp *nimia*, *Dicrastylis velutina*, *Scholtzia* sp Prowaka Springs, *Stenanthemum grandiflorum*, *Melaleuca sclerophylla*, *Persoonia pungens*, *Beyeria gardneri*, *Persoonia chapmaniana*, and *Dryandra fraseri* var *oxycedra*.

Survey results - TECs

Several new occurrences of the TEC, Assemblages of Organic Mound Springs of the Three Springs Area were located in the shires of Three Springs and Carnamah. Detailed and comprehensive flora surveys of these and existing occurrences have been undertaken, data collected has been included in DEC's TEC database.

Several new occurrences of the Ferricrete Floristic Community (Rocky Springs Type) were located in the Shires of Three Springs and Carnamah on areas of private property and conservation estate. Detailed flora surveys were conducted at existing and new occurrences of the Ferricrete Floristic Community (Rocky Springs Type) with data collected included in DEC's TEC database.

Translocated populations - establishment and repeat plantings

The translocated population of *Acacia aprica* has been supplemented with 254 individuals planted in July 2006. Steps have been taken to supplement the translocated population of *Grevillea batrachioides* in 2007. The preparation of a translocation proposal for *Chorizema humile* has begun in consultation with DEC Science Division.

Translocated populations – maintenance and monitoring

Maintenance and monitoring of the following translocated populations within the Moora District has been carried out, *Grevillea althoferorum*, *Grevillea batrachioides*, *Grevillea humifusa*, *Synaphea quartzitica*, *Daviesia bursarioides*, *Acacia cochlocarpa*, subsp *cochlocarpa*, *Acacia aprica*, *Verticordia albida* and *Eucalyptus rhodantha* var *rhodantha*.

Seed and propagule collection

DRF species including - *Grevillea batrachioides*, *G. humifusa*, *G. calliantha*, *Patersonia spirifolia* and *Jacksonia pungens*.

Threat abatement

Steel mesh cages have been constructed and placed over all known individuals of *Chorizema humile*, the cages are designed to protect the species from grazing allowing for seed production and subsequent recruitment.

Educational activities

A number of education activities have been undertaken in 2006, activities include interpreted site visits with community groups, school visits and displays at local community events such as the Blessing of the Fleet celebrations in Jurien and the Cervantes Easter Gala Day.

A Threatened Species and Communities of the Northern Agricultural Region Activity Book has been produced under the Back from the Brink Project, the activity book is aimed at primary school aged children and provides activities and information specific to threatened species and communities in the Northern Agricultural Region

Submissions to the Threatened Species Scientific Committee

Two submissions have been prepared for the Threatened Species Scientific Committee (TSSC), for the species *Calothamnus accedens* and *Stawellia dimorphantha*. Both species have been nominated for removal from the DRF list and proposed to be listed as conservation dependant due to substantial new occurrences being located on secure Conservation Estate.

Liaison with land managers/Industry consultation

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

Externally funded projects

Coordination and participation in a regional project funded by the federal and State Governments and administered by the Northern Agricultural Catchment Council (NACC). The project entitled *Back from the Brink* is being implanted by the Moora and Geraldton Districts of the Midwest Region and aims to increase the security of the threatened species and communities in the Northern Agricultural Region.

The Three year project commenced in January 2006 and is set for completion in mid 2008. Major project outcomes for 2006 include the successful survey of new populations of DRF, locating new occurrences of TECs, significant community engagement, contributions towards the maintenance and creation of DRF translocations and educational/capacity building activities.

The Recovery Team through the Conservation Officer – Flora has also provided technical advice to the West Midlands NRM Group and Dandaragan Regional Herbarium Group towards a proposed future project involving the construction of DRF educational gardens within the Dandaragan townsite

Reports/Plans completed

- *Eucalyptus absita* A report on population status and Sustainability, Don Williams (Consultant Botanist) 2006
- *Threatened Ecological Communities, Ferricrete floristic Community and Organic Mound Spring*. Jennifer Borger (Consultant Botanist) 2006
- *Assessment of Populations, Spirogardnera rubescens*. Mattiske Consulting Pty Ltd (Consultant Botanists) 2006
- *Interim Recovery Plan – Eucalyptus absita*, Gina Broun (DEC) 2006
- *Interim Recovery Plan – Leucopogon obtectus*, Ben Bayliss et al (DEC) 2005
- *Interim Recovery Plan – Eucalyptus rhodantha var rhodantha*. Kathy Himbeck (DEC) 2006
- *Interim Recovery Plan – Andersonia gracilis*. Gillian Stack et al. (DEC) 2006
- *DRAFT Interim Recovery Plan – Acacia cochlocarpa subsp cochlocarpa*. Kathy Himbeck (DEC) 2006
- *DRAFT Interim Recovery Plan – Chorizema humile*. Kathy Himbeck (DEC) 2006

Moora District Threatened Flora Recovery Team Meeting
4th December 2006
Held at Hi Vallee Farm Badgingarra



Above: Critically Endangered *Jacksonia pungens*
Photo: Benson Todd DEC

Note: On the 23rd of May 2006 the Minister for the Environment announced the creation of the Department of Environment and Conservation (DEC) through the amalgamation of the Department of Environment and the Department of Conservation and Land Management (CALM). As of the 1st of July 2006 all references to CALM will refer to DEC.

1.0 ACRONYMS USED HEREIN

BGPA	Botanic Gardens and Parks Authority
DEC	Department of Environment and Conservation
DEH	Department of Environment and Heritage
DRF	Declared Rare Flora
IRP	Interim Recovery Plan
JBRH	Jurien Bay Regional Herbarium
MDTFRT	Moora District Threatened Flora Recovery Team
MRWA	Main Roads Western Australia
MSBP	Millennium Seedbank Project
NACC	Northern Agricultural Catchment Council
NHT	Natural Heritage Trust
NRM	Natural Resource Management
PEC	Priority Ecological Community
SCB	Species and Communities Branch, DEC (formerly WATSCU)

TEC	Threatened Ecological Community
TFSC	Threatened Flora Seed Centre
TSSC	Threatened Species Scientific Committee
WATSCU	Western Australian Threatened Species and Communities Unit
WMNRM	West Midlands Natural Resource Management Group
WWF	World Wide Fund for Nature
P4	Priority 4 flora species
P3	Priority 3 flora species
P2	Priority 2 flora species
P1	Priority 1 flora species

2.0 RECORD OF ATTENDANCE

2.1 PRESENT:	Rebecca Carter	DEC, Moora District (Chair)
	Benson Todd	DEC, Moora District
	Kathy Himbeck	DEC, Moora District
	Renee Hartley	DEC, Moora District
	Kathy Carey	DEC, Moora District
	Jessica Wright	DEC, Midwest Region
	Craig Douglas	DEC, SCB
	Marie Jarvis	Works Infrastructure
	John Stevens	WestNet Rail
	Charles Strahan	Shire of Three Springs
	Mike Harvey	Shire of Dandaragan
	David Camplain	Shire of Dandaragan
	Don Williams	Community Rep., Coorow
	Joy Williams	Community Rep., Coorow
	Jenny Borger	Community Rep., Three Springs
	Allan Tinker	Community Rep., Coorow
	Ron Snook	JBRH
	Hugh Bennett	JBRH
	June Ivey	JBRH

2.3 APOLOGIES:	Andrew Brown	DEC, SCB
	Tania Jackson	DEC, Science Division
	Monica Batista	DEC, SCB
	Andrew Crawford	DEC, TFSC
	Fiona Falconer	DEC, Midwest Region
	John Greay	Shire of Moora,
	Aaron Wotton	Shire of Irwin,
	Peter Gillis	Shire of Coorow
	Anthony Raudino	DEC, Geraldton

3.0 WELCOME & INTRODUCTION

Rebecca Carter welcomed all those present and opened the meeting at 10.20am. The day's agenda was outlined and an invitation was extended to all to join in the afternoon's excursion through Hi Vallee with Don & Joy Williams. This was followed by each attendee giving a brief introduction of him/her to the rest of the group.

Minutes confirmed from previous meeting held on the 30th May 2006, by Jenny Borger.

3.1 SENSE OF PLACE – HI VALLEE – Don Williams

Don welcomed everyone to 'Hi-Vallee Farm' and spoke of it's beginnings in 1966. Don talked about *Eucalyptus suberea* and how it was easy to identify by its unusual scent. What you are going to see this afternoon is rich in rare species. He also welcomed Mike Harvey from the Shire of Dandaragan. Mike had been to Hi Vallee many times before as a Horticulturist with the Perth Zoo.

4.0 SPECIES & COMMUNITIES BRANCH UPDATE – Craig Douglas

Craig explained no species in the Moora District have been nominated for listing or delisting with the TSSC.

Interim Recovery Plans

Three IRPs are being drafted for species in the Moora District these include the Endangered *Drakaea elastica* (Gillian Stack) and *Macarthuria keigheryi* (IRP is with Moora District for preparation- NOTE: communication with Craig after his presentation revealed that this IRP is actually being prepared by the Swan Region, with one population occurring in the Moora District) and the Critically Endangered *Eremophila koobabbiensis* (Craig Douglas) which has been recently listed by the TSSC.

IRPs have been updated for the Critically Endangered *Acacia cochlocarpa* subsp. *cochlocarpa* ms and *Chorizema humile* by the Moora District.

In early 2006 IRP for the critically endangered *Eucalyptus absita* and the endangered *Leucopogon obtectus* were signed off by Director of Nature Conservation, Gordon Wyre. The IRP for the Vulnerable *Andersonia gracilis* has also been signed off.

IRP's have been completed for the critically endangered *Eucalyptus balanites* and an update for the vulnerable *Eucalyptus rhodantha* var *rhodantha*. An IRP has also been completed for *Acacia* sp. Dandaragan (now *Acacia splendens*).

Craig read from notes sent by Gillian Stack Conservation Officer – Flora DEC whom was unable to attend the meeting, regarding the translocation of *Darwinia carnea*.

The process of getting a translocation underway for *Darwinia carnea* was started under Biodiversity Hotspots. The *Darwinia carnea* translocation has gone ahead with major work put in by Perth Hills District (in whose District the translocation site falls) and Avon-Mortlock District (in whose district the wild populations exist, now that the Shire of Victoria Plains has left the Moora District). A large number of volunteers from Species and Communities Branch also assisted with planting of four hundred plants, which are all doing well. All are reticulated, fenced and bird netted, with half the plants planted with TerraCottem, a soil conditioning product consisting mainly of water-holding polymers.

5.0 MOORA DISTRICT UPDATE – Benson Todd

Introduction

Benson Todd provided an update on works completed in the District since the last meeting in May 2006. Benson started with a refresher on the District boundaries which extend from Lancelin in the south to Dongara in the north, including the Shires of Three Springs, Carnamah, Coorow, Dandaragan and Moora and also a small portion of Gingin shire and the southern half of the shire of Irwin. From the beginning of this financial year the District boundary has changed and the Shire of Victoria Plains is no longer included in the Moora District with the formation of the Avon Mortlock District, with the Office based in Northam.

Benson then went on to provide an overview of the threatened flora and ecological communities' present in the District. The Moora District is home to 77 species of Declared Rare Flora, 28 of which are critically endangered, 29 listed as endangered and 20 listed as vulnerable. Collectively the 77 species occur in 691 populations across

the District. Along with the 77 species of Declared Rare Flora the District is home to around 300 species of Priority Flora. We also have 9 Threatened Ecological Communities (TECs), 1 of which is critically endangered, 6 listed as endangered and 2 listed as vulnerable.

Interim Recovery Plans

Benson explained that one of the main reasons we are here as a group is to oversee the implementation of IRPs for threatened flora and ecological communities. Currently we have 23 IRPs for threatened flora, 7 IRPs for TECs.

The District also has Wildlife Management Program No. 28 which documents all the species of threatened flora and lists the management actions that are required to ensure the long term survival of the species. The management program was produced in 2001.

Kathy Himbeck has been working on updating three IRPs, one for the Rose Mallee, *Eucalyptus rhodantha* var. *rhodantha*, which has been completed and IRPs for *Acacia cochlocarpa*, sub species *cochlocarpa* ms and *Chorizema humile* which are both nearing completion.

Monitoring

Monitoring of known populations of threatened flora continues to be a focus for District staff. Many populations have been monitored over the past six months providing important information on the condition of populations and assisting in determining trends in population status. Monitoring also helps in the identification of urgent recovery actions in need of implementation and helps to build and strengthen relationships with landholders, community members, utility groups and local government authorities.

All of the information collected is submitted for inclusion in the State's Threatened Flora Database managed by DEC. Benson also acknowledged the work carried out by DEC staff from other areas and volunteers.

New Populations

Since we last met in May a number of previously unrecorded populations of threatened flora have been identified. These include two new populations of *Calothamnus accedens*, Piawanning claw flower, this species was previously presumed extinct but has now be found in large numbers in Watheroo National Park. As we learnt at the last meeting, the discovery of these two new populations, one close to Watheroo National Park and near Bindi Bindi will further substantiate the case for the down grading of this species from the critically endangered status.

A further population consisting of two subpopulations of *Grevillea christineae* or Christine's Grevillea has been located on Merewana Rd, east of Watheroo, consisting of approximately 9 individuals.

Two new sub populations of *Synaphea quartzitica* have been located in Watheroo National Park with one population providing some insight into how the species is affected by disturbance with two seedlings growing in a gravel windrow of a recently graded track.

Kathy Himbeck has located 10 new sub populations of *Chorizema humile* on private property in the Coorow and Bind Bindi areas, totaling 58 individuals.

Various environmental consultancies have located a number of new populations of *Stawellia dimorphantha* in the Mt Adams area south east of Dongara, where the species is thought to be locally abundant and if so may be a candidate for removal from the Declared Rare List.

Four New populations of *Darwinia chapmaniana* have been located in Pinjarrega NR north of the Coorow Green Head road, the population counts for these populations are estimated at 10 000 individuals.

Seed Collection

Benson explained it is the time of year again when seed collection becomes a focus and seed collection is primarily undertaken by Andrew Crawford from the TFSC and supported by District staff.

Some collections have already been made from *Grevillea humifusa* and *Grevillea calliantha* and collections will be made from *Grevillea batrachioides* throughout the summer as this species continues to flower and fruit through December and into January.

Chorizema humile is also a focus this season with a translocation planned for next year, Andrew will also be targeting *Thomasia sp* Green Hill and *Jacksonia pungens* in the coming months

Translocations

Benson explained that there are a number of translocations in the District, most of which have been monitored since we last met, with some planting and maintenance occurring.

Species	Monitoring	Further Planting	Watering Summer 06/07	Survival
<i>Synaphea quartzitica</i>	June 2006		Yes	64% (144)
<i>Daviesia bursarioides</i>	Sept 2006			24% (111)
<i>Acacia aprica</i>	July 2006	240		75% (643)*
<i>Acacia cochlocarpa</i> subsp <i>cochlocarpa</i>	June 2006			50% (540)
<i>Grevillea calliantha</i>	Outstanding			28% (131)
<i>Grevillea humifusa</i>	October 2006			71% (264)
<i>Grevillea batrachioides</i>	Sept 2006			42% (43)
<i>Grevillea althoferorum</i>	Outstanding		Yes	73
<i>Verticordia albida</i>	July 2006	17	Yes	34% (29)

Threatened Ecological Communities

Benson explained that Monica Batista could not make it today but had provided some information on TEC works that had occurred in the District including that the data collected by Jenny Borger has been entered into the TEC database. This information included detailed species lists, updated boundaries and many new occurrences of both the ferricrete and Mound Spring TECs.

The information has been used in a submission to the Threatened Ecological Communities Scientific Committee to keep the Ferricrete Floristic Community TEC listed as vulnerable instead of the proposed plan to list the community as Critically Endangered, primarily due to the new occurrences identified by Jenny, one being on conservation estate.

Benson then explained DEC have been in consultation with SIMCOA Operations in regard to the future mining operation at Coomberdale and possible avenues for improved protection of Heath Community of the Chert Hills of the Coomberdale Floristic Region TEC, a process which is still ongoing.

Upcoming Works

Benson then concluded by providing a list of upcoming works that will be completed.

- Monitoring of known threatened flora populations and translocated populations will continue to be a focus

- The preparation of reports to the Threatened Species Scientific Committee in order to have *Calothamnus accedens* and *Stawellia dimorphantha* removed from the Threatened Flora List and listed as Conservation dependant species at Priority Four. The major reason for both these submissions is due to large number of plants being located on Conservation estate.
- It has been proposed to establish two translocated populations of *Chorizema humile*, through a project funded through the Biodiversity Conservation Initiative, an internal DEC initiative to provide funding for 'on ground' nature conservation projects. Dr Tania Jackson based with the Department's Science Division is leading the project. Tania with the help of District staff will be assessing suitable sites around the Bindi Bindi area with seedlings growing at the moment. Next year Tania will be working on establishing another population in the Coorow area.
- Through the Back from the Brink Project we have been working on a fencing grant scheme which has now closed. The applications that have been received will be funded for materials and contractors fee for erecting the fencing.
- An Annual Report for the Recovery Team will be prepared and submitted early in the New Year.

Rebecca Carter – It has been good to have Benson covering for me whilst I have been busy on other projects. As you would be aware funding is a real plus in Nature Conservation.

6.0 BIODIVERSITY CONSERVATION INITIATIVE – Kathy Himbeck

Kathy Himbeck provided a presentation on a project she is leading entitled '*Ecological Assessment of a High Biodiversity Hotspot on Private Property Creating a Management Plan for Future Protection of Threatened Species*'. The project is to be carried out in a 350 hectare remnant on the northern side of 'Hi Vallee farm' owned by Don and Joy Williams. The project is funded through an internal initiative entitled Biodiversity Conservation Initiative.

Kathy explained that Don & Joy are very passionate and great people who she has worked with in the last couple of months. This 350 hectare remnant has not been cleared and was set aside by Don and Joy when they first began clearing the land and is equivalent in value floristically to Lesueur NP.

Kathy discussed the need for some future planning as Don and Joy plan on retiring in the future and want to ensure this area of remnant vegetation is protected if the farm was to change ownership, there is the possibility that DEC may acquire the land however a management plan would be required to ensure its effective management. The development of such a plan is the primary goal of this project.

Kathy then went on to explain that the project would involve conducting flora surveys to establish the extent of the threatened flora species, conducting fauna monitoring (something that hasn't been completed in the area before), repairing fences and developing a fire management plan.

7.0 HIDDEN TREASURES UPDATE – Jenny Borger

Jenny Borger provided a presentation on the work she had been involved with through the Hidden Treasures Project, funded by NACC. The staff include Jenny Borger, Jessica Wright and Glen Daniel. The work involves surveying remnant vegetation that has been identified as areas of interest through desktop analysis. Jenny explained the project will allow for vegetation association mapping to be improved

Tentative findings of new priority and DRF – specimens are still to be verified and checked against known populations.

- *Acacia ampliata* P1 Broun BB 3010-7 Coorow Sterile
- *Persoonia pungens* MO 410-3 Coorow P3 O'Callaghan
- *Beyeria gardneri* MO40- P1 Coorow
- *Persoonia chapmanii* MO40-38 P3 Coorow
- *Lepidium* CM 1110-8 Morowa
- *Acacia* aff. *ancestor phyla tetradon* only place

- *Verticordia muelleriana* subsp muell. BJ 1810-24 P3
- Acacia BB 711-29 *A. isoneura*. Subsp. *nemea* P3 Coorow
- *Verticordia mitodes* BNR 711-31 P3 Buntine poor specimen
- *Dryandra nobilis* subsp. *fragrans* P3 WA 911-6 SW Moora
- *Stenanthemum grandiflorum* P2 Coorow AIC 1610-16
- *Beyeria lechenaultii* A/C 1610-11
- *Acacia. Isonaura* subsp. *nemea* P3 A/C 1610-19 Coorow

Areas covered (Coorow, Three Springs) have been very dry so our collection has not been as great as we expected. We are sending about 1/3 of our collection off to the herbarium. We did collect over 800 specimens, so from a rare point of view Coorow was the best area.

Goodlands Nature Reserve we collected 3 different species of Eucalypt.

Jenny kept us entertained with her photos of various specimens that are growing on granite outcrops. Protruder Rocks area has minimal soil but plants are managing to grow.

Rebecca Carter – It is great that we have this happening in our area.

Ron Snook – Were there any Mallee Fowl in the area?

Jenny Borger - Mallee Fowl were in the area. But I don't think we were quite in the right spot to see them. The vegetation was very dry.

Jenny Borger - Farmers were quite receptive to us going through their property. We explained to the farmers what we were trying to do and also the outcome. Their main questions were "what if you find something of importance?" I explained that the areas may be closed off etc... so there were a few who said 'no' to us going over their property.

8.0 STOP THE ROT – Tony Raudino

Rebecca Carter - Tony Raudino has not arrived from DEC Geraldton to give his presentation on the Stop the Rot project. A project looking at weeds, feral animals, Phytophthora dieback and other threatening process in the Northern Agricultural Region.

Rebecca Carter - Are there any questions that we can pass on to Tony?

Alan Tinker – What is the progress with removing the Victoria Tea Tree?

Rebecca Carter – Tony has flagged it up the Brand Highway. The process has been slowed due to the fact he needed training to work near the highway to meet Australian Safety Standards.

Marie Jarvis – Brand Hwy, Cervantes Rd and Jurien East Rd have all been noted by Tony.

Alan Tinker - Carnamah Shire have graded the Three Springs Eneabba Rd, Victorian Tea Tree has been cut in and graded in this area.

Marie Jarvis - People need to better understand that Victorian Tea Tree is a weed and local authorities need to look at removing these trees.

Rebecca Carter – follow up spraying, and monitoring is in the process of happening in the coming years. We will pass this on to Tony for his information.

Comfort Break 1150 am

Meeting Continued 1210pm

9.0 LOCAL GOVERNMENT ISSUES – ROUND TABLE DISCUSSION

Rebecca Carter – we are now moving into the more practical area of threatened flora management. Jenny Borger is now going to talk on the 2 year project she is starting in the New Year addressing roadside conservation issues.

Jenny Borger - We are looking at re-vegetation and rehabilitation of road reserves. This will involve assisting Local Government Authorities with re-vegetation of the roadsides and bush. We aim to choose 6 sites from within the shires that are co-operative and set these sites up as demonstrations and show them about weed control. Width of road verges needs to be ascertained too. If any one has any ideas on how to go about this project please come and talk to me. The Shires of Coorow and Three Springs are already interested. Three Springs has identified a 4 km strip of weeds that they would like to re-vegetate. The mine has offered to help as well.

Alan Tinker – can you stop the shire from damaging the verge?

Jenny Borger – I would like to run workshops for the Shire workers to help them identify were they are going wrong with clearing of the road verges etc...

Alan Tinker - What about harvesting gravel?

Rebecca Carter- I have not read the project. I am trying to put peer pressure on to the shire. Bringing it from a different point of view.

Jenny Borger – The Shires of Three Springs and Morowa are big on their wildflowers. They do a lot to try and develop this as a tourist attraction.

Rebecca Carter - People don't often think of the value of roadside vegetation, the aim of this project to create an awareness of the importance road verges and their management.

Ron Snook - Do the Shires re-vegetate areas of roadside vegetation currently?

Jenny Borger – who has a reasonable reputation on re-vegetating their road verges?

Jenny Borger – particular species need to be looked at for its priority rating and use.

Don Williams – Banksias would be great. Shires should be planting vegetation that is native to the area.

Joy Williams – The shire of Dalwallinu is very much into planting native species.

Jenny Borger and Rebecca Carter both agreed.

Jenny Borger – What about large trees on the edge of main roads?

Marie Jarvis – the best plan is not to plant trees too close to the road verges. Shrub vegetation is regarded to be the best as large trees often obscure the line of site and may need to be removed at a later date. I would suggest No trees at all on small country roads.

Rebecca Carter – we do struggle to attract Shires to these meeting. If there are ways the Recovery Team can encourage Shires to attend our meeting so they have a better understanding of what we are trying to achieve can people come forward with there suggestions

Joy Williams - Dalwallinu would be a great place to start. Talk to Brent?

Ron Snook – In the older Shires of Dandaragan and Dallwallinu the roads are narrow. Perhaps we could buy land from the land owners and plant trees further back to allow for trucks and a better line of site.

Jenny Borger - this would create a safer road. Coorow and Greenhead roads had gravel pits and edges.

Joy Williams – weed control should be a primary focus of the project.

Rebecca Carter – A good example of where we have worked well with Shires and landholders is in the Shire of Dandaragan , where we have been able to move and install new fences to protect species of rare flora.

Joy Williams -Research station an Boothendarra Rd is quite degraded, and may be a good case study site.

Jenny Borger- I will be starting soon and would like good ideas by the end of January 2007 at which time I will be making contact with people.

Benson Todd –Add to action item – perhaps we could offer maps to the Shires of the locations of Threatened Flora populations.

Jenny Borger- We need to sit down with the Shires with the Maps to show rare plants and to organize training of shire workers.

Action Item 9.1 – Jenny Borger and Benson Todd to contact Local Government Authorities and put forward the ideas of the project, and provide them with maps of DRF occurring on Shire road verges.

10.0 MAIN ROADS UPDATE – Marie Jarvis

Marie Jarvis explained that we have already discussed Victorian Tea Tree and asked if any one had any other issues relating to Main Roads.

Alan Tinker - With the current weed situation in areas north of the caravan park. (Western Flora) Watsonia has become a problem. We have tried all sorts of authorities, but are not getting anywhere.

Marie Jarvis – Offered Alan Tinker her business card and arranged a time to talk about specific problem areas.

Craig Douglas – what is the procedure to remove the seed (Victorian Tea Tree)?

Marie Jarvis– we spray yearly after removing the plants this coupled with continual monitoring along enables us top keep on top of areas we have already treated.

11.0 WESTNET RAIL UPDATE - John Stevens

John Stevens presented an overview of WestNet Rail's works program for 2007.

Narngulu Area – Completed Works/Works in Progress.

- Scrub slashing/mulching : Dongara – Eneabba
Mingenew – Three Springs
Wannamal – Marchagee
- Firebreaks
- 400 steel sleepers placed between Watheroo & Marchagee
- Broken Sleepers replaced on the Dongara – Eneabba section
- Approximately 2500 sleepers placed between Morawa and Perenjori
- Placement of steel sleepers in CBH sidings at Maya – Mullewa section
- Removal of old telephone poles and placement of one quarter and three quarters kilometer markers alongside the track between Eneabba and Dongara, Dongara – Narngulu and Narngulu – Mullewa.

Work also includes relocation of some original kilometer and half kilometer, which had been placed in the wrong location.

Forthcoming Works:

- Place 5000 steel sleepers Moora – Watheroo (March/April 2007)
- Place 1000 timber sleepers Watheroo – Mingenew
- Replace fouled ballast 146.15 – 164.850km in Moora Townsite (near station building)
- Re-rail, re-sleeper and re-ballast Arrino CBH Loop
- Re-rail and re-sleeper Watheroo Loop
- Replace 82 metres of rail at 33km Dongara – Arrowsmith
- Formation stabilization by lime injection 266.5 – 268 Coorow – Carnamah section
- Level Crossing rehabilitations – 3 between Dongara & Narngulu, 4 on Narngulu- Mullewa and 1 at Eneabba South Mine
- Culvert maintenance and cleaning on the MR, Narngulu – Mullewa and south line
- Bridge maintenance and termite spraying at Mogumber, Strawberry, Walkaway and Eradu

12.0 COMMUNITY EDUCATION AND CAPACITY BUILDING – Renée Hartley

Those of you who were at the last MDTFRT meeting heard about the Back from the Brink project. Back from the Brink is a three year project funded by the Federal and State Governments, administered by the Northern Agricultural Catchment Council and implemented by staff at the Jurien and Geraldton DEC offices. I am a Conservation Officer responsible for implementing the fauna aspects of the project, there is a Flora Conservation Officer for the project operating out of Geraldton and there soon will be a Flora Conservation Officer for the project in the Moora District.

The project aims to increase the security of threatened species and ecological communities, which will be largely achieved through the implementation of recovery actions drawn from Recovery Plans and Interim Recovery Plans. The majority of these plans include at least one recovery action for promoting awareness; community involvement; liaison with community groups, organizations, land managers, local government, and so on. The other primary aim of the project is increasing the communities' capacity to manage threatened species and communities. This of course is largely based on education, so that people are able to identify species and communities, be aware of the issues, understand the importance of proper management and identify threatening processes.

Species survival can depend as much on an informed and supportive public as it does on the activities of land managers. Many recovery activities can be carried out very efficiently and cost-effectively with community participation.

Education and public awareness raising actions driven by community members are thought to be extremely effective. Through the involvement of community groups, volunteers can be encouraged to help the recovery effort, resulting in growing local ownership of species and recovery programs.

Under the Back from the Brink project, we are able to provide increased support for Utility groups, Local Government Authorities and private landholders, through the provision of information and guidance; and increasing liaison with relevant organizations. We will be producing education materials such as pamphlets, posters and a teacher resource pack and providing interpreted site visits, school visits and increased media exposure.

The Teacher Resource Pack we will be developing will work in with the Curriculum Framework, making it very accessible for teachers and easy for them to use. We will be able to provide support in terms of staff time when practicable and the students will be able to achieve outcomes for their school year.

By encouraging young people to actually become involved in threatened species and communities management, we are able to pass on skills that they may not otherwise acquire, whether it be recognising the differences amongst flora species, identifying bird calls, identifying areas of habitat degradation...

Middle childhood students have been selected as the target audience for this resource pack due to their ability to understand and investigate conservation issues.

The secondary audience are the parents and wider community, research has shown that young people have been critical in influencing older generation's acceptance of conservation behaviours and environmental protection. We hope that students and teachers will start to think about the importance of threatened species and communities and begin to understand management processes and the influence they themselves can have as members of the community. The students and teachers will learn about threatening processes, how they impact on species and communities and how each individual can contribute to minimizing the threat.

We have poster displays in Jurien; at Dobbyn Park, a popular place for both locals and tourist and at the shire library, again, visited by both locals and tourists to the area. These displays will be updated regularly (monthly) to maintain interest. It is envisaged that displays will be established around the region with a number of themes that can be on rotation.

This year at the Blessing of the Fleet we handed over 200 "Back from the Brink" Activity Books and pencils. The 28 page book features a number of threatened and specially protected species of the NAR, the Lake Thetis TEC, the Kwongan vegetation system and the unique landscape of the Mt Lesueur area. It introduces the children to the project, answers questions such as 'what is a threatened species' and 'why do we protect threatened species'. It outlines some of the key threatening processes in the region and actions we are taking to minimise these.

It's colourful and eye-catching, with activities such as spot-the-difference, word-searches, cross-words, colouring-in and dot-to-dot. The activities are designed to support what they have learnt by reading the text on the previous page. There are definitions throughout to introduce children to terminology such as 'flora' and 'fauna'.

Rebecca Carter – thank you Renée. That brings us to the end of today's presentation. We will now have a round table discussion.....

13.0 ROUND TABLE DISCUSSION – ISSUES ARISING

No questions raised.

Rebecca Carter – any updates not covered during the previous presentation?

Jenny Borger - Woodland watch surveys on Dring's Property north east of Coorow located *Scholtzia* sp (P1).

Alan Tinker requested maps depicting the areas of newly acquired conservation estate on First North Rd in the Shire of Three Springs

Rebecca Carter and Benson Todd - Yes

Action Item 11.1 Benson Todd to provide Alan Tinker with maps of newly acquired conservation estate on First North Rd in the Shire of Three Springs.

14.0 MEETING CLOSED

Rebecca Carter concluded the formal proceeding and extended an invitation to all attendees to join in the afternoon field trip to Hi-Vallee. Rebecca thanked everyone for their attendance, especially those who traveled great distances. Rebecca also thanked Don & Joy Williams for lunch and providing such a great venue for today's meeting.

Meeting Closed at 1315PM

Next meeting will be scheduled in May 2007