

**Geraldton District Threatened Flora & Ecological Communities
Recovery Team**

Project No. 446

Annual Report

2005

by

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for the Geraldton District Threatened Flora and Threatened Ecological Communities Recovery Team

Summary

This report provides a summary of the progress made by Recovery Team Members and associates in the recovery of threatened flora species and Threatened Ecological Communities (TECs) that occur within the Geraldton District, as per the Threatened Flora Management Plan for CALM's Geraldton District, Project Number 446, Wildlife Management Program No. 26, entitled "Declared Rare and Poorly Known Flora in the Geraldton District" and Interim Recovery Plans (IRPs) for Declared Rare Flora (DRF) and Threatened Ecological Communities.

At present there are approximately 19 IRPs for threatened flora species and 4 IRPs for TECs that occur within the Geraldton District. The following IRPs were prepared during 2005; *Gyrostemon reticulatus*, *Leucopogon marginatus*, *Beyeria lepidopetala* and *Chorizema humile*

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 is long term (i.e. 3-5 years), it is often not possible to quantify their success or failure on an annual basis, however significant increases or decreases in the number of individuals or known populations during 2005 have been noted

Recovery actions undertaken in 2005 included extensive surveying for new populations and monitoring of known populations, successful translocation of a DRF species, habitat species planted in an area where two DRF populations occur, genetic research into the taxonomy of four species, seed collection of five DRF and priority species, weed and feral animal control, community education and awareness, consultation with industry and liaison with land managers. These actions have resulted in the discovery of two new species yet to be named, the detection of eleven new populations of DRF and priority species and increased knowledge of species distribution, habitat and taxonomy. Increased community awareness and education has been achieved through community involvement in planting days and other recovery actions and through various media releases

Recovery Team

Members of the recovery team have a variety interests and areas of expertise and together work towards completing recovery actions to conserve declared rare flora threatened and threatened ecological communities

The recovery team did not meet during 2005 as the Conservation Officer for the Geraldton District was on leave. The next meeting is scheduled for late May 2005. Liaison was maintained between members throughout 2005, with members completing survey work, recovery actions and providing advice in their areas of expertise. Those listed below are both official and un-official members. Interested community members are also encouraged to attend recovery meetings

Members and Technical Advisors

Don Bellairs	CALM Volunteer, Wildflower Society, Kalbarri
Ian Hamilton	Main Roads WA, Roadside Management Officer, Geraldton Division
Robin Westlake	CALM Volunteer, Wildflower Society, Woorree Nursery, Geraldton
Robyn Nicholas	Morowa Herbarium Group, local TEC representative
Jenna Brooker	Geraldton Herbarium Group, Greenough Flats TEC
Anne Car	Dongara Herbarium Group
Robyn Soulier	Mingenew Herbarium Mingenew LCDC
Joesephine Docherty	Wildflower Society, Mullewa
John Stevens	Westnet Rail
Irene Shepard	Geraldton Herbarium Group
Leanne Edmonslon	Australian Bush Heritage Fund
Paul Hales and Paul??	Australian Bush Heritage Fund
Bayden Smith	Greening Australia
Margi Weir	Greening Australia
Alison Dugand	Australian Wildlife Conservancy
Representative Rotating	Yamatji Land and Sea Council
Anthony Desmond	(Chair) CALM Regional Leader Nature Conservation
Sue Patrick	CALM Science, WA Herbarium
Val English	CALM, Species and Communities Branch
Rosemarie Rees	CALM, Species and Communities Branch
Gillian Stack	CALM, Species And Communities Branch
Leonie Monks	CALM, WA Herbarium
Andrew Crawford	CALM, Threatened Flora Seed Centre
Catherine Page	CALM, Conservation Officer (Flora), Geraldton District

Major Recovery Actions Completed in 2005

Major recovery actions completed for DRF, priority species and TEC's in 2005 are as follows:

***Acacia cerastes* (P1)**

- Three new populations were found in the Mount Gibson Ranges by Herbarium staff.

***Acacia imitans* (CR)**

- The Geraldton District has continued to maintain liaison with the land managers as a result the caretaker at Mt Gibson Station is actively looking for new populations
- Feral Goat control has been undertaken by land managers
- Fencing of a large section of the Ninghan pastoral lease, within which populations of this species occur

***Acacia unguicula* (CR)**

- The Recovery Team has continued to maintain liaison with the land managers
- Feral Goat control undertaken by land managers
- Fencing of a large section of the Ninghan pastoral lease, which contains populations of this species

***Baeckea* sp. Western Australia (J. Drummond sn) (P1)**

- Seed collected from a population on West Binu Rd

***Beyeria lepidopetala* (CR)**

- All populations were monitored and found to be healthy with no decline in numbers
- Eurady Station, where the populations of this species occur, has been purchased by Australian Bush Heritage for conservation
- Liaison has continued with the new land managers and information on the DRF has been provided
- An IRP has been prepared. Recovery actions include further survey in the vicinity of recorded populations.

***Caladenia barbarella* (EN)**

- Eurady Station, where the populations of this species occur, has been purchased by Australian Bush Heritage for conservation
- Liaison has continued with new land managers, and information on the DRF has been provided.

***Caladenia bryceana* subsp. *cracens* (EN)**

- Risk of inappropriate fire reduced for Kalbarri National Park population through firebreak maintenance

***Caladenia elegans* (CR)**

Recovery actions implemented for this species during 2005 have included:

- Several populations were monitored
- A translocation proposal is in progress in cooperation with Botanic Gardens and Parks Authority. As yet, a date for the translocation has not been confirmed
- In preparation for the translocation, the proposed site, which contains an existing population, has been subject to the following recovery actions
 - 0.5 Ha of weed control
 - Construction of a pig proof fence
 - Planting of habitat speciesA local school was involved in planting the habitat species and a newspaper article was published in reference to this
- Liaison with relevant landholders and land managers has continued

***Caladenia hoffmanii* (EN)**

- Some populations monitored
- Two new sub populations of the species surveyed by the Western Australian Native Orchid Society (WANOSCG) at Oakajee Nature reserve. The plant was not observed when surveyed fully at a later date, however it may have been too late in the season. The site will be visited during August-September 2006 to confirm
- Liaison with the Shire of Northampton and the Shire of Chapman Valley has continued.

***Caladenia wanosa* (EN)**

- Eurady Station, where the populations of this species occur, has been purchased by Australian Bush Heritage for conservation
- Liaison has continued with the new land managers who have been provided with information on the DRF
- A new population of this species was discovered at Wicherina by WANOSCG
- Further survey's were undertaken by District staff in nearby areas at the Wicherina Reserve, however were not successful in further locating the species

***Calytrix paucicostata* (P2)**

- Seed collected from the Kalbarri National Park population of this species

***Chorizema humile* (CR)**

- This species has not yet been relocated in the Geraldton District
- District staff has completed opportunistic surveys of suitable habitat sites

***Conostylis dielsii* subsp. *teres* (VU)**

- An IRP was prepared for this species during 2005 and has been approved
- A wildfire burnt approximately 80% of Burma Road Nature Reserve during the 04/05 summer, where this species is found.
- Several populations that were burnt during the wildfire were monitored during 2005. No seedlings were found, the population will be visited again during 2006 to monitor its recovery
- Burma Road Nature Reserve was baited for rabbits
- This species changed in rank during 2005 from critical to vulnerable.

***Conostylis micrantha* (VU)**

- A wildfire burnt approximately 80% of Burma Road Nature Reserve during the 04/05 summer where populations of this species are found
- Several populations that were burnt during the wildfire were monitored during 2005. No seedlings were found, the population will be visited again during 2006 to monitor its recovery
- Burma Rd Nature Reserve was baited for rabbits

***Darwinia masonii* (EN)**

- Comment has been provided on a scoping document and PER that were prepared in relation to an Iron Ore mine at the Mt Gibson Range, where this species occurs.
- Three populations of the species were monitored and a slight reduction in numbers was noted in two of the populations. Further survey work is required to determine the extent of the impact of the mining activity on the population
- Liaison has been maintained with the landholders
- A report has been prepared regarding research on the genetic variability within the species and seed viability by the Botanic Gardens and Parks Authority. Further research is underway

***Drakaea concolor* ms (EN)**

Management requirements have been implemented as follows:

- A new population of this species was discovered near Wicherina Nature Reserve by a WANOSCG member and later surveyed by UWA and CALM. A number of plants were found as a result of this survey. A follow up survey was completed throughout the reserve by district staff but no further populations were located
- Fire break maintenance has occurred though Kalbarri National Park where populations of this species occur in order to reduce the risk of inappropriate fire

***Eremophila micrantha* (P4)**

Implementation of recovery actions has been as follows:

- Material was collected for genetic research to determine if the disjunct populations at Kalbarri and Eneabba are the same taxon. This research is currently in progress. Consideration is being given to re-listing the Eneabba populations of this species as DRF if the two are found to be distinct.

***Eremophila nivea* (CR)**

- Populations were monitored during 2005, with an increase in numbers for most populations
- Translocation site and trials to induce recruitment at an existing population continue, unfortunately with no success to date

***Eremophila rostrata* ms (CR)**

- Material was collected from each of the populations to undertake genetic analysis to determine if the disjunct populations are different taxon as suspected.

***Eucalyptus blaxellii* (VU)**

- Two unconfirmed populations located, voucher specimens from each have been sent to the WA herbarium for verification

***Glyceria drummondii* (EN)**

- Further survey for this species is intended during a favorable season.
- Population has not been impacted by fire

***Grevillea christineae* (EN)**

- Two populations monitored, both stable.
- Liaison with Northampton Shire Roadwork Coordinator and private property owner regarding improving visibility for drivers at a corner nearby a population of this species. Area surveyed and marker adjusted as a result

***Grevillea phanerophlebia* (CR)**

- Research to clarify taxonomic status is currently being conducted. The outcome is expected in the near future
- One population was monitored and it remains stable
- Liaison with land managers, WestNet Rail, has continued and they have agreed to install DRF markers at population located within the rail reserve, Eradu, in the very near future

***Gyrostemon reticulatus* (CR)**

- An IRP has been prepared detailing recovery actions including further survey in burnt areas and previous collection sites, and trials to stimulate recruitment.
- All populations monitored, however all have continued to decline, as the species is a fire ephemeral.

***Halosarcia bulbosa* (EN)**

- Population monitored and remains stable
- Consultants have undertaken detailed survey and mapping of the population and will be required to undertake quarterly monitoring of the population should a road upgrade and Iron Ore transport be approved.
- Comment has been provided regarding a permit to take for this species in relation to a road upgrade through the population. Permit to take has been approved

***Hybanthus cymulosus* (CR)**

- The Recovery Team has continued to maintain liaison with the land managers, particularly in relation to feral goat control. The caretaker at Mt Gibson has been familiarised with the species and is actively looking for new populations
- Fencing of a large section of the Ninghan pastoral lease, which contains populations of the species, was completed

***Hypocalymma longifolium* (EN)**

- Seed collected from the Yerina Springs population
- Taxonomic research is currently being completed on this species

***Lepidosperma* sp.?**

A new, un-named *Lepidosperma* sp has been located at the Mt Gibson Range and is currently being examined by a herbarium staff. There is no record of the species occurrence in the Mt Gibson, Blue Hills, Koolanooka and Mt Jackson areas. The population of the species may be effected by the proposed mine so may need to be addressed in the PER process.

***Lobelia* sp.**

A new, un-named species of *Lobelia* sp. has been discovered at Jack Hills and is currently being examined by herbarium staff. As this area is under threat from mining the population will need to be monitored and surveyed fully

***Leucopogon marginatus* (EN)**

- An IRP has been prepared and recovery actions include post fire monitoring, rabbit control and liaison with property owners.
- All populations were monitored
- Some of the populations were burnt in the 04/05-summer fire at Burma Road Nature reserve. These were monitored and no regeneration was observed
- Burma Road nature reserve was baited for Rabbits during 2005
- An unconfirmed new population located by the Regional Herbarium Group on private property near Allanoooka. A voucher specimen has been sent to the WA herbarium to confirm its identity
- Liaison with land managers (Water Corp, Shire of Greenough and Western Power contractors) has continued

***Pterostylis* sp. Northampton (S.D. Hopper 3349) (CR)**

- Several populations monitored.
- A translocation proposal is in progress in cooperation with the Botanic Gardens and Parks Authority. A date for the translocation has not been set
- In preparation for the translocation, the proposed site which contains an existing populations has been subject to the following recovery actions
 - 0.5 Ha of weed control
 - Construction of a pig proof fence
 - Planting of habitat speciesA local school was involved in the planting of the habitat species and a newspaper article was published
- Liaison with the landholders regarding the management of this taxon has continued

***Ptilotus chortophytum* (P1)**

- WA Herbarium staff member rediscovered this species on Yerina Spring Road. It has not been collected in the area for over 100 years.

***Scaevola oldfieldii* (P3)**

- Seed was collected from the Rob Rd population

***Scholtzia* sp Ajana (T.A Halliday 137) (P3)**

- Seed was collected from the Kalbarri-Ajana Rd population

***Stylidium amabile* (CR)**

- Change of rank from priority one to critical. The IRP for *Stylidium coroniforme* (as it was previously known) will continue to be used to direct recovery actions until there is an IRP in place specifically for *Stylidium amabile*.
- Liaison with landholders, Westnet rail has continued

***Stylidium wilroyense* (P2)**

- Disjunct populations of this species occur at Wilroy and Coolcalalaya, in very low numbers and in different habitat and it has been suggested that these may be different taxon.
- Requires consideration for nomination as DRF, and clarification of the taxonomic status
- Liaison with land managers has continued

***Verticordia spicata* subsp. *squamosa* (CR)**

- Some populations monitored.
- 27 individuals planted during 2005 with the help of local community members. Newspaper article published.
- Individual plants fenced to protect from grazing by feral animals. The decision was made not to reticulate the area, however the population was monitored and watered if needed, periodically throughout the summer of 2005/2006. Approximately 15 plants of those translocated last year have survived

***Verticordia euraryensis* (P1)**

- Species monitored, population known however survey had not been previously completed for this population

Threatened Ecological Communities

***Acacia rostellifera* low forest with scattered *Eucalyptus camaldulensis* on Greenough Alluvial Flats Occurrences of the Greenough Flats TEC.**

- A nomination was submitted during 2004 to have this community classified as “Presumed Totally Destroyed”. An estimation of actions required to restore the community was prepared and submitted with the nomination. It has not been resolved as yet

Plant assemblages of the Koolanooka System

- The Koolanooka Hills are the subject of several mining applications and CALM staff has been liaising with the mining companies and their consultants regarding proposals and providing comment if required. A proposal has been submitted for this area to become a Conservation Reserve and is still awaiting approval

Community Education and Awareness

Photographs were taken of Herbarium specimens of all known DRF and Priority 1 species for the Geraldton, Moora and Carnarvon districts. This will form a valuable reference tool for community groups and district staff who are not familiar with the species.

An informative booklet and a Landscape article have been written on the Geraldton to Shark Bay Biodiversity Hotspot and are now waiting approval from CALMs’ corporate relations section. The information booklet will be distributed to all interested community groups within the region

A number of local shires are contained within the Geraldton district and liaison has been maintained with staff members from each of these shires, namely the Shire of Perenjori, Chapman Valley, Mingenew, North Hampton, Greenough, Yalgoo and Murchison