2005 Recovery Team Annual Report

Esperance District Threatened Flora Recovery Team

Recovery Team Membership

CALM: Klaus Tiedemann (District Manager, Esperance), Mike Fitzgerald (Nature Conservation Coordinator, Esperance), Emma Adams (Flora Conservation Officer, Esperance), Andrew Brown (Coordinator Threatened Flora, Species and Communities Branch), Dave Coates (CALM Science).

OTHER: Andrew Batty (Kings Park Botanic Gardens), Coral Turley (Wildflower Society), Barbara Archer (Community member from Shire of Dundas), Paul Clifton (Rep. from Shire of Esperance).

Regular Observers
Other CALM personnel (Albany, Goldfields, Katanning), Reps. from private consultants – Geoff Cockerton (Landcare Services), Reps. from Mines Department, Reps. from Dept. of Agriculture, Reps. from Water Authority, Reps. from community groups, interested community members.

Brief Summary

During the last year Ryan Butler (Conservation Officer, Flora) left the Esperance District and moved to Kalgoorlie to take on a different role within the Department. Since October, Emma Adams has been employed in this position in Esperance.

Throughout the year, efforts were focused on several Critically Endangered species, including *Lambertia echinata* subsp. *echinata*, *Daviesia microcarpa* and *Eremophila lactea*. A huge step forward was the discovery of a new population of *Lambertia echinata* subsp. *echinata*, which has more than doubled the previously known number of plants. Surveys were also conducted for *Myoporum turbinatum*, *Anigozanthus bicolor* subsp. *minor* and *Eremophila denticulata* subsp. *trisulcata*. Unfortunately, due to a severe fire season, limited budget and a staff changeover, surveys and monitoring were not conducted as frequently as usual.

Major recovery actions implemented involved monitoring of populations, surveying new areas, monitoring translocation sites, conducting disturbance trials, mapping of critical habitat and reviewing IRP's. Two Interim Recovery Plans were drafted throughout the year; *Marianthus* sp. Bremer (R. Butler) and *Adenanthos eyrei* (E. Adams) with the final versions to be completed during 2006. Two IRP's have come up for review; *Eremophila lactea* and *Lambertia echinata* subsp. *echinata.* Whilst funds have been made available for *E. lactea's* IRP to be updated, no funds are currently available for updating *L. echinata* subsp. *echinata*.

Progress of IRP's and major recovery actions implemented

Recovery Action:

Monitoring of *ex-situ* populations

For the following species:-

- *Daviesia microcarpa*
- *Eremophila lactea*
- *Lambertia echinata* subsp. *echinata*
- *Myoporum turbinatum*
- *Eremophila denticulata* subsp. *trisulcata*
- *Anigozanthos bicolor* subsp. *minor*

Mapping Habitat Critical to the Survival of the Species

For the following species:-

- *Lambertia echinata* subsp. *echinata*
- *Eremophila lactea*.
- *Myoporum turbinatum*
- *Anigozanthus bicolor* subsp. *minor*

Further Surveys (of new areas)

For the following species:-

- *Lambertia echinata* subsp. *echinata*. Surveys resulted in the discovery of a new population, nearly doubling the previously known number of plants.
- *Eremophila lactea*
- *Anigozanthus bicolor* subsp. *minor*

Monitoring of Translocations

- The translocated seedlings of *Daviesia microcarpa* were monitored, with the majority of seedlings extremely healthy, and all flowering and fruiting. The success, so far, of this translocation has significantly increased the number of individuals in the population.
- The 2004 translocation for *Lambertia echinata* subsp. *echinata* were monitored, but with both translocation sites (Cape Le Grand and Woody Island) yielding disappointing results. Only two seedlings have survived (Cape Le Grand site). Poor results have been attributed to several factors including; age of seedlings, time of planting, exposure and drought.

Implementation and Monitoring of Disturbance Trials

- The 2004 *Daviesia microcarpa* trial site was monitored. There has been varying success with the trial plots with some yielding more seedling growth than others. However there has been no positive identification of the seedlings as *D. microcarpa*.
- Further disturbance trials were conducted for *D. microcarpa* in May 2005 using smoke-water treated vermiculite, with the intention of stimulating germination of soil-stored seed. The site was monitored in November, but no recruitment has yet been observed.
- Disturbance trials conducted in 2004 for *Eremophila lactea* were monitored, but no seedlings as yet have been identified as *E. lactea.*
- Further disturbance trials for *Eremophila lactea* were conducted in May 2005 using smoke-water treated vermiculite, again with the intention of stimulating germination of soil-stored seed. These sites are to be monitored in 2006.

Phosphite Application

- Aerial phosphite application to *Lambertia echinata* subsp. *echinata* populations in Cape Le Grand National Park.

Promoting Awareness

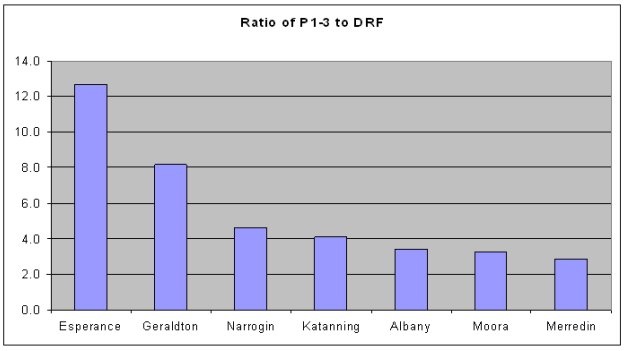
- WATSNU article published for *Eremophila lactea*

Interim Recovery Plan Preparation

- *Marianthus* sp. Bremer; currently in draft form and to be completed by 2006
- *Adenanthos eyrei*; currently in draft form and to be completed in 2006
- *Eremophila lactea;* The current IRP has reached the end of its 5 year plan. Criteria for success were met, with the discovery of a new population in 2004 which significantly increased the number of known individual plants. NHT funds have been made available for the review of this IRP, which is to be completed in 2006.

Major Issues Arising from 2005

A major issue is the number of poorly known taxa (Priority 1-3 Flora) within the Esperance District. The District has 264 of these taxa, of which 133 are locally endemic. The Esperance District has a very high proportion of poorly known Priority taxa compared with Declared Rare Flora (currently 13:1). In comparison with other Districts occupying the transitional rainfall zone within the SW Botanical Province, it has perhaps the most poorly known priority flora in Western Australia:



The number of poorly known Priority flora requiring assessment of their conservation status is now unworkable, and the key concern is that the highly threatened taxa, hidden within this group, will not receive recovery treatment until their conservation status is determined. Resources are urgently required to clarify the conservation status of Priority flora. However, existing resources are insufficient to address this problem.

ACTION:

We propose to seek funding from SCRIPT to allow the appointment of a Consultant (equiv L2/3 Technical Officer), to work under the supervision of the Conservation Officer (Flora) for 6 months of each year, for a three year period, to survey and monitor priority taxa. However, there is an extremely high level of competition for the very small amount of funds available from SCRIPT for this purpose.