



6(2) Dec 1999

DEPT OF BIODIVERSITY, CONSERVATION & ATTRACTIONS

Volume 6, Issue 2

# WATSNU

THE LIBRARY  
DEPT OF CONSERVATION  
& LAND MANAGEMENT  
12 JAN 2000  
WESTERN AUSTRALIA

## GOLDEN CATSPAW by Andrew Brown

Inside this issue:

<i>Ecological Communities in the Kimberley</i>	2
<i>Montebellos update</i>	3
<i>Bristlebird translocation</i>	4
<i>Darvinia carnea translocation</i>	5
<i>Flora updates</i>	7
<i>Limestone ecological communities</i>	8
<i>Greencorps project</i>	10

• "The land is owned by the Benedictine Community and thanks to their foresight in setting it aside for conservation the rare catspaw's long-term conservation appears to be assured."

Some 2000 plants of the Vulnerable golden catspaw, *Anigozanthos humilis* subsp. *chrysanthus* have been located in remnant bushland near New Norcia. The land is owned by the Benedictine Community and thanks to their foresight in setting it aside for conservation the rare catspaw's long-term conservation appears to be assured. Prior to the new discovery, golden catspaw was known from 11 very fragmented populations and 3000 plants in total. Many of these populations are in small, degraded areas of remnant bushland, such as along narrow road reserves.

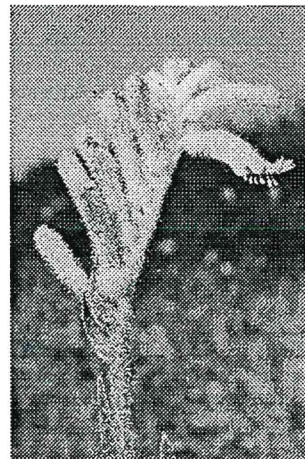
The discovery came about when, in early 1999, the WA Native Orchid Study and Conservation Group (WANOSCG) contacted Dom Christopher Power to ask if its members could conduct surveys in several thousand hectares of bushland owned by the Benedictine Community. The surveys were mainly for orchids but it was also an opportunity for the group to

search for more populations of the Critically Endangered Greenhill thomasia (*Thomasia* sp. Greenhill), which is known from just two small subpopulations on the Benedictine Community's land.

Val English and I met with WANOSCG members on Sunday 22 August 1999 and proceeded to one of the bush blocks. Although no more *Thomasia* populations were located, numerous plants of golden catspaw were

found growing in an area of sandy soil in the middle of the reserve. At that time the plants were in bud and early flower.

Val and I went back to the site on the 13 October to conduct a full survey of the subspecies. Golden catspaw was in full flower and we estimated that there were conservatively over 2000 flowering plants spread over 30 hectares of land. The bushland was in excellent condition and no major threats were observed.



*Golden catspaw*

Further information on the golden catspaw can be found in *Western Australia's Threatened Flora* (see *WATSNU* December 1998) including three superb photos by Babs and Bert Wells (pages 23, 32 and 216).

## INVESTIGATING THREATENED ECOLOGICAL COMMUNITIES IN THE KIMBERLEY - Sally Claymore

An investigation of possible threatened ecological communities in the Kimberley Region formed the basis of this year's field work program for the project "To conserve threatened ecological communities throughout the State (especially outside the Southwest)." The focus of the project, which is funded by the Natural Heritage Trust, is on Western Australia's rangelands. Designed to be conducted over a three-year period, the project is now in its second year and has seen eight rangeland communities databased and formally assessed by CALM's Threatened Communities Scientific Advisory Committee. Of these, one occurs in the West Kimberley at Roebuck Bay. It is referred to as the "Species-rich community of intertidal mudflats of tropical Australia," and includes unique species assemblages of birds and the macrobenthic invertebrate fauna they feed on.

During the 1999 dry season, pastoral and Aboriginal lands, conservation reserves and vacant crown land were visited across six bioregions, including: Dampierland, Northern Kimberley, Victoria Bonaparte, Central Kimberley, Ord-Victoria Plains and the Great Sandy Desert. Approximately 20 possible threatened community types were included, encompassing numerous occurrences within each community type. For practical reasons of distance and time, the emphasis was on community types that are naturally restricted in area and distribu-

tion, such as those associated with particular wetlands, vine thickets or mound springs. The purpose of field investigation was to collect and collate readily obtainable information on species and habitats, gain insights into threats and management issues, and discuss areas with land managers as well as CALM district and regional staff.

Pastoralists and their families were generally interested to discuss pockets of unusual country on their lease, and went out of their way to provide directions to sites of occurrences. One week of the field program involved participation in the Walyarta (Mandora Marsh) Survey, conducted by CALM Kimberley and Pilbara regional and district staff. The survey was funded by the Natural Heritage Trust through two projects: "The Mandora Marsh land management assessment" and "Threatened habitat protection - Mandora Marsh." The second of these involves the continuation of a project to fence a series of organic mound springs that are being damaged by cattle and camels. Among the aims of the survey were the assessment of the distribution of mound springs in the area, assessment of the inland distribution of mangroves, and assessment of current management of the area towards developing recommendations on land management practices. The results of the expedition are in the process of analysis and collation.

Under this project, numerous other occurrences of organic mound springs were surveyed throughout the Region. These

rare landforms occur at points of ground water discharge and are usually elevated above the surrounding landscape through the build up of peat (and/or calcarenites in some regions). They provide small mesic refuges within arid and seasonally arid landscapes and, elsewhere, many have been shown to contain rare flora and narrowly endemic invertebrates and fish, including relict taxa. Many mound springs have become extinct in the last one hundred years and most of those remaining are under threat of degradation or destruction. Major threats include ground water extraction from source aquifers, physical destruction through land clearing or cattle grazing, and invasion by exotic plant and animal species.

Organic mound springs near Perth are currently listed as a threatened community type in the "Critically Endangered" category, and one occurrence is now managed for conservation purposes. While the existence, conservation values and significance of mound springs are also well documented for rangelands in the area of the Great Artesian Basin in eastern and central Australia, most examples in the north of our State are less well known and require further research to permit assessment. It is hoped that the outcomes of current investigations into our northern mound springs, and other restricted communities, will result in some examples being included on the Threatened

*(Continued on page 3)*

# MONTEBELLO RENEWAL UPDATE ~ Andrew Burbidge

*Montebello Renewal* is a 'Western Shield' project that aims to eradicate feral animals from the Montebello Islands Conservation Park and reintroduce/introduce threatened animals.

In 1999, feral cats were eradicated from Hermite Island, the only island on which they have occurred in the past few years. CALM-developed feral cat baits were laid by helicopter, generously supplied by Apache Energy, in early June. All cats except four were killed. Three of these four animals were trapped over the two weeks, but the fourth took a further four weeks to trap. Trapping was conducted by CALM cat trappers, with the assistance of volunteers—all of whom were CALM staff who gave up part of their annual leave.

Unfortunately monitoring for black rats revealed low numbers on Hermite Island, as well as the adjacent Delta and

Campbell Islands. Delta and Campbell were re-baited by the cat trappers, but Hermite was too large to re-bait with available equipment and people.

In October, an aerial baiting exercise was carried out. This involved laying rodenticide from a spreader bucket slung beneath a helicopter. CALM received considerable assistance in this operation from the New Zealand Department of Conservation, who developed this technique and have much experience in its application. NZ DoC provided an experienced staff member, Simon Mowbray, to supervise the operation at the Montebellos, which was concluded successfully.

The Mala (Rufous hare-wallabies) translocated to Trimouille Island in June 1998 are doing well. In June 1999, 24 of the 30 animals released were located alive and two are known to have died. Breeding has occurred and independent young were observed.

Twenty-six Djoongari (Shark Bay Mouse) were translocated to North West Island on 31 May, 1999. Post-release monitoring showed that Bungarras (*Varanus gouldii*) predated some of them. Monitoring in October showed that some animals were still alive, but suggested that perhaps less than 30% had survived.

Monitoring of cats and rats, as well as Mala and Djoongari, will be required in 2000.

**For further information, contact Andrew Burbidge on 94055 128 or Email: [andrewb@calm.wa](mailto:andrewb@calm.wa).**



*Mala tracks photographed on the beach at Trimouille Island, the morning after release in 1998*

*(Continued from page 2)*  
Ecological Communities Database in the coming year.

At the other end of the scale, it was recognised that several vegetation communities that are widespread throughout the Kimberley Region, are in the process of being severely modified through drastically altered fire regimes and traditional systems of cattle grazing. While these communities are widespread, the threatening processes also occur on a very broad scale, and intact exam-

ples are becoming progressively harder to find. The main limitation of this project is the lack of sufficient data to assess many of the possible threatened communities against the criteria for defining categories of conservation status. Either (or both) the characteristics or extent of these communities are not adequately defined and further specialised research is required. Such research may form the basis of future project funding applications.

**For further information, contact Sally Claymore on 94055 168 or by Email: [sallyc@calm.wa.gov](mailto:sallyc@calm.wa.gov).**

## First Translocations of Bristlebirds ~ Allan Burbidge

Western Bristlebirds once occurred in suitable habitat west of Albany, but were last seen there in the early 1900s. However, as a result of efforts over the last few months, bristlebirds are now being heard in the Walpole area for the first time in over 90 years.

Allan Burbidge (CALM Science Division), Sarah Comer (CALM Albany) and Carl Beck (CALM Walpole), with the assistance of CALM staff and volunteers, took eight birds from Two Peoples Bay to Nuyts Wilderness, Walpole-Nornalup National Park. This is the first time that bristlebirds have been translocated.

Over 30 people were directly involved in the project, most of them volunteers - in fact, the project would not have been possible without the dedicated assistance of the many volunteers. Many thanks to all those who assisted.

It remains to be seen how successful the efforts have been, but the signs have been encouraging. Most birds have been heard singing at the translocation site. Some were heard only briefly, but others have been heard singing with a very high frequency (suggesting that they have been finding enough food to be able to spend the amount of time and energy required for long singing bouts).

Perhaps the most promising sign to date has been that at least two of the birds translocated in mid-September were heard calling in mid-November.

**For further information, contact Allan Burbidge on 94055 100 or by Email: [allanb@calm.wa.gov](mailto:allanb@calm.wa.gov).**



Western Bristlebird

## Ground Parrot Surveys ~ Allan Burbidge

Shapelle McNee, with a number of volunteers, has been conducting searches to relocate Ground Parrots in Cape Arid National Park. The project has been supported by the Threatened Species Network and the WA Group of Birds Australia.

The population of Ground Parrots at Cape Arid has not been seen for some time. Unfortunately, the latest surveys didn't find them either. However, more surveys are planned for May 2000. If you are interested in assisting with this project, volunteers are needed. Please contact Shapelle via Allan Burbidge at the Wildlife Research Centre, Woodvale (tel. 08 9405 5100).

On a brighter note, some very promising reports have come from west of Albany. The last definite records from west of Albany were pre-1985. The Albany based "Friends of the Ground Parrot" group will follow up these reports in the near future.

## Translocation of *Darwinia carnea* - Kim Kershaw

On the 15<sup>th</sup> October a Thank You ceremony was held at a Shire reserve south of Narrogin to acknowledge all the people and groups involved with the translocation of the critically endangered Narrogin bell (*Darwinia carnea*). A translocation proposal was written by Narrogin District staff, and was approved in February 1998.

This community-based project has been made special by the number of people and groups involved to complete the project. In May of this year, the Central South Naturalists Club received funding from the World Wide Fund for Nature's Threatened Species Network and the Natural Heritage Trust's Endangered Species Program, to aid in the preservation of the Narrogin bell in partnership with CALM - Narrogin District. The money received was used to erect rabbit proof fencing at the two sites and to carry out the planting.

Although commonly known as the Mogumber bell, *Darwinia carnea* is also known from a single population near Narrogin. Plants in this population have larger, more pinkish bracts and may represent a distinct subspecies. Some confusion has occurred over the common name of this species as, in the Narrogin area, it is known as the Narrogin bell.

The Narrogin population occurs on a small isolated remnant, which suffers extreme



edge effects. Current recovery actions in conjunction with the landowner have led to an increase in the population, which a few years ago consisted of only 20 plants. However, it was necessary to plant new populations in more secure sites. Two sites were selected as suitable for translocation because of their landscape location and associated vegetation. One site occurs in Dryandra State Forest and the other in a gravel reserve, which was provided by the Narrogin Shire.

Cuttings were obtained from the original population by CALM staff in Narrogin and taken to Kings Park and Botanic Garden where over 100 plants were grown from cuttings in the nursery. Eighteen people consisting of members from the Central South Naturalists Club, World Wide Fund for Nature Australia, CALM staff including WATSCU, WA Herbarium and CALM Narrogin were all involved in the planting of the cuttings at the two sites in June. This also involved clearing areas where the rabbit exclusion fencing was going to be erected.

Following the plantings, a local fencing contractor erected the rabbit exclusion fences at the two sites, but due to the extreme conditions of the site - the plants grow on lateritic ridges - the erection of the fence was going to cost more than the grant. Following further discussions, the fence was erected within the grant amount, with many thanks going to Brian Hare's efforts for putting a fence in an area consisting mostly of rocky lateritic outcropping.

The ceremony was not only an opportunity to thank all the groups involved but also, an opportunity for these people to look at the plants, which were in flower, and to see how the project was proceeding. A sign was erected on the fence, as part of the grant acknowledging the Threatened Species Network Community Grants Project.

**Kim is the Assistant Conservation Officer at CALM's Narrogin District. He can be contacted on 98811444 or by Email: [kimk@calm.wa.gov.au](mailto:kimk@calm.wa.gov.au)**

## Commonwealth funds for the recovery of Critically Endangered plant taxa

In February 1999, funds were sought from Environment Australia's Endangered Species Program (ESP) by WATSCU and CALM Districts for seven projects to develop and implement Interim Recovery Plans for Critically Endangered plant taxa. The plants occur in CALM's Moora, Albany, Merredin, Southwest Capes, Perth and Esperance Districts. Funds sought totalled \$473,700. Just two projects were successful in gaining part funding, with funds approved totalling \$50,000.

Funding for these projects include \$25,000 of the \$40,000 sought to develop and implement a Threatened Flora Management Program for the Shire of Wongan-Ballidu, and \$25,000 of the \$57,700 sought to develop and implement Interim Recovery Plans for eight Critically Endangered plant taxa in the Albany District. These funds are approximately

half of that requested for the first year of each of the projects and will only partially help fund some of the most urgent actions.

Other projects essential to the recovery of Critically Endangered plants were unsuccessful in gaining continuing funds from ESP. These include projects that provide crucial information about the future management of Critically Endangered plants such as investigations of biology and methods of propagation, and how plant taxa can be successfully translocated into new areas to improve their conservation status.

In addition, continuing funds for 'Conservation Officers' who are on-ground personnel that implement Threatened Flora Management Programs in regional areas will not be provided through the ESP program this year. These officers are central to the successful recovery of Critically Endangered plant taxa.

Previously, recovery actions for 32 of some 100 plant taxa that are currently ranked as Critically Endangered in Western Australia were jointly funded by Environment Australia and CALM, with over \$210,000 provided to date by the Commonwealth for the recovery of these plants. These funds supported urgent management actions such as weed control, fencing, translocation to secure sites, further survey and investigations of biology and ecology.

The next round of applications for Natural Heritage Trust funding will be completed in February 1999. These are again likely to include requests for funds for urgent recovery actions for management of many of Western Australia's Critically Endangered plant taxa.

## Search for elusive *Grevillea* ~ Val English

*Grevillea curviloba* subsp. *incurva* (narrow curved-leaf grevillea) has only been positively identified from the Muchea area in recent years. However, two reports indicate that this Critically Endangered taxon may also occur around Eneabba.

On December 1<sup>st</sup> 1999, a search of the two reported Eneabba sites was conducted by WATSCU staff and local enthusiast, Alan Tinker, a member of the Moora District Threatened Flora Recovery Team. Alan's knowledge

of the local flora and habitats proved invaluable in determining likely search areas.

Location details are sketchy for both reported populations in the Eneabba area. One site from which the grevillea had been reported had been under water as a consequence of the recent flooding, and the ground had only just re-emerged! At Muchea the populations occur in winter-wet areas over ironstone or limestone.

Unfortunately, the reported populations were not located during the search, however, additional information likely to be available from a local mining company may shed more light on the actual location of this elusive grevillea.

**For further information, contact Val English on 94055 169 or by Email: [vale@calm.wa.gov.au](mailto:vale@calm.wa.gov.au)**

## FLORA UPDATES

### *Chorizema humile*

The Critically Endangered prostrate flame flower is known from just three populations found in the Carnamah – Moora area. Most of the populations are found on degraded road verges, which are threatened by road maintenance activities and weed competition. The prostrate habit and delicate foliage of this species also makes it particularly vulnerable to trampling and grazing by sheep and kangaroos. As a result of a recent flora survey of Waddy Forest Land Care District in Coorow, a new population of prostrate flame flower was discovered on private property. This population extends over two properties and consists of 100 plants. Sheep have been known to take refuge in the bush area on one of the properties and so cages have been erected over individual plants. This will be undertaken using Natural Heritage Trust funds.

### *Hemiandra hancocksiana* ms

Colourful snakebush was recently only known from one population in Alexander-Morrison National Park, south-east of Eneabba. A further population, consisting of 86 plants was discovered in 1997 after surveying remnant bush on private property. There are currently two known populations of colourful snakebush. In November 1999, a survey undertaken in the National Park revealed a large increase in the number of colourful snakebush plants, to over 1000. A recent

fire in the park may have been the contributing factor to the explosion of plant numbers. *Hemiandra hancocksiana* ms has now been recommended for downlisting to Endangered.

## POSTAL DROPS

You may recall from the last issue of *WATSNU* that postal drops were created for three Critically Endangered species including *Acacia sciophanes*, *Grevillea dryandroides* subsp. *dryandroides* and *Drakonorchis drakeoides*.

*Acacia sciophanes*, Wundowlin wattle is known from only within a small area near



*Wundowlin wattle*

Mukinbudin. The species is only known to grow on deep yellow sand over granite, a soil that has been largely cleared for agricultural purposes in the area. Several replies from the postal drops were received, however, none of these turned out to be new populations.

*Grevillea dryandroides* subsp. *dryandroides* Phalanx grevillea is apparently confined to the Ballidu area and grows

amongst tamar scrub on yellow to white/grey sand and gravel. Unfortunately, no replies from the postal drops have been received so far for this species.

*Drakonorchis drakeoides*. Hinged dragon orchid extends throughout the northern and western wheatbelt, from Coorow to the west, east to Beacon and south to Goomalling, mainly confined to seasonally wet elevated margins of saline flats. Two new populations of hinged dragon orchid have so far been identified on private property as a result of the postal drops. One population was found in Koorda, which extends the range of the species further south.

The postal drops, a small double-sided pamphlet, containing a photograph, description of the species and a reply paid postage address to CALM, were sent to private property owners and managers of other public places in the general area of each plant species during its flowering season.

In all, the postal drops have been a successful method of indirectly surveying large areas of private property that may have been difficult to access. Although new populations were discovered for only one species, the postal drops have promoted a general awareness about the species among the community.

For further information, contact Robyn Phillimore on 94055 165 or by Email: [robypn@calm.wa.gov.au](mailto:robypn@calm.wa.gov.au)

# Endangered Ecological Communities on Limestone

## ~ Val English

The Threatened Ecological Community Scientific Advisory Committee (SAC) recently recommended an ecological community be assigned to a lower category of threat as a consequence of its improved status. This is the first time such a recommendation has been made for an ecological community in Western Australia since the process of listing ecological communities began in 1994. CALM's Director of Nature Conservation has endorsed the new threat category.

The 'Shrublands and Woodlands on Muchea Limestone' were assigned to the category of Critically Endangered in November 1995. The limestone substratum associated with the black clay soils of the eastern side of the Swan Coastal Plain is extremely rare and has historically been cleared for quarrying and agriculture. Species that characterise the community are typically associated with limestone soils in coastal areas including *Eucalyptus decipiens* (redheart), *Eucalyptus foecunda* (narrow-leaved red mallee), *Exocarpus sparteus* (native cherry), *Melaleuca huegelii* (chenille honey-myrtle), and *Melaleuca acerosa* (coastal honey-myrtle).

In 1995 only 35ha of the community was known to exist. Just prior to listing, six hectares of the community was purchased for conservation by CALM and Environment Australia. At that time, most of the

remaining area of the community was on private property and was threatened by clearing, grazing by stock, and weed infestations.

Following the location of additional areas of the community since 1995, another 64 hectares was purchased by CALM and Environment Australia. The two purchases, and the associated changes in management have resulted in a significant reduction in the level of threat to the community. More than half of the remaining area of the community is now managed for nature conservation by CALM.

As a consequence of the improved status of the community, the SAC recommended changing the threat category assigned to the 'Shrublands and Woodlands on Muchea Limestone' from Critically Endangered to Endangered at a meeting in October this year. This represents a significant step forward in the conservation of Threatened Ecological Communities in Western Australia.

Another community only known from massive limestone ridges was recommended for listing as Endangered by the SAC at the same meeting in October this year. The *Melaleuca huegelii* - *Melaleuca acerosa* shrublands occur on limestone ridges around Yanchep north of Perth, and at one site south of Perth near Lake Clifton.

The community occurs as species rich thickets, heaths or

scrubs dominated by *Melaleuca huegelii*, *M. acerosa*, and *Dryandra sessilis* (parrotbush) over *Grevillea preissii*, *Acacia lasiocarpa* (panjang) and *Trymalium albicans*. A distinctive suite of herbs commonly occurs under the shrub layer, and the community is easily distinguished from the Shrublands and Woodlands on Muchea Limestone in that the associated species and habitat differ significantly.

The massive limestone community is known from about 50 occurrences covering a total area of 125 hectares. The largest occurrence is about 20 hectares in size, with the smallest being just over a tenth of a hectare. Only 25 hectares of the community occurs in conservation reserves, and although much of the remainder is proposed to be included in Nature Reserves, National Park and Conservation Park, many areas are subject to mining interests.

As a consequence of the limited area of the community, and uncertainty with regard to its future management, the SAC recommended it be listed as Endangered. Recommendations for actions to improve the status of the community will occur following the listing process.

For further information, contact Val English on 94055 169 or by Email: [vale@calm.wa.gov.au](mailto:vale@calm.wa.gov.au)



## TECs in the Northern Wheatbelt ~ Sheila Hamilton-Brown

The Director of Nature Conservation has recently endorsed the nomination of another five Threatened Ecological Communities (TECs) that occur in the Northern Wheatbelt. The Scientific Advisory Committee has now assessed nine of the forty-six possible TECs in that region (see table below). This is very exciting, as the process from the identification of possible communities to its actual nomination is stringent and time consuming.

On a less optimistic note, the 'Perched fresh-water wetlands of the northern Wheatbelt dominated by extensive stands

of living *Eucalyptus camaldulensis* across the lake floor', previously assessed as Critically Endangered, has been re-assessed as Presumed Totally Destroyed as most of the vegetation in the wetland is now dead, and it is believed to be beyond recovery.

Interim Recovery Plans (IRPs) have been completed for the Greenough alluvial flats, and will also be drafted for some of the recently listed TECs. Meetings with stakeholders are envisaged early in the new year to discuss management strategies for these communities.

The budget available for the

third year of this project has been reduced by the loss of the \$30,000 contributed in the first two years by the NHT Endangered Species Program. This shortfall has resulted in the social science component being discontinued (see article in this issue by Sue Moore). However, money available from the Bushcare Program will allow the rest of the project to be completed successfully..

**For further information, contact Sheila on 94055 167 or by Email: sheilahb@calm.wa.gov.au**

Community	Category of Threat
<i>Acacia rostellifera</i> thicket with scattered <i>Eucalyptus camaldulensis</i> on Greenough alluvial flats	Critically Endangered
Heath dominated by one or more of <i>Regelia megacephala</i> , <i>Kunzea praestans</i> and <i>Allocasuarina campestris</i> on the upper slopes of the chert hills of the Coomberdale floristic region	Endangered
Plant assemblages of the Billeranga System	Vulnerable
Plant assemblages of the Koolanooka System	Vulnerable
Plant assemblages of the Moonagin System	Vulnerable
Plant assemblages of the Wongan Hills System	Lower Risk (not a TEC)
Clay flats assemblages of the Irwin River	Presumed Totally Destroyed
Perched fresh-water wetlands of the northern Wheatbelt dominated by stands of living <i>Eucalyptus camaldulensis</i> across the lake floor	Presumed Totally Destroyed
<i>Melaleuca megacephala</i> and <i>Hakea pycnoneura</i> thicket on stony slopes of Moresby Range	Data Deficient

## Murdoch University leaves WA Wheatbelt threatened ecological communities project ~ Sue Moore

After working for two years with Sheila Hamilton-Brown and John Blyth on the NHT Project Identifying and Conserving Threatened Ecological

Communities in the Agricultural Areas of South-west WA, we're leaving Sheila and John to complete the last year on their own. This early departure is the result

of monies not being available from the NHT Endangered Species Program for the third year of this project.

*(Continued on page 10)*

## Green Corps work to recover Threatened Ecological Communities ~ Alex Agafonoff

World Wide Fund for Nature (WWF), Department of Conservation and Land Management (CALM) and Australian Trust for Conservation Volunteers (ATCV), are cooperating in a new Green Corps project "Restoring Ecological Communities on the Swan Coastal Plain". The Threatened Species Network, a community-based program of WWF funded by the Endangered Species Program of the Natural Heritage Trust (NHT) is coordinating the project.

A team of Green Corps trainees will work alongside local government, Friends of Brixton Street Wetlands, Friends of Talbot Road, Rockingham Regional Environment Centre and

Yangebup Progress Association to restore some of the most unique assemblages of bushland on the Swan Coastal Plain – occurrences of a number of Threatened Ecological Communities (TECs).

The team will be implementing recovery actions as outlined in Interim Recovery Plans prepared by Val English of WATSCU. These actions include weed control, rubbish removal, seed collection, fencing and rehabilitation. A significant improvement of the conservation values of these areas will be an important outcome of the project.

TECs across the Swan Coastal Plain from Gingin to Rockingham will be part of the

project, which will run from December 1999 to May 2000. Work sites include occurrences of these TECs;

- ◆ Shrublands and woodlands on Northern Ironstones
- ◆ Shrublands and woodlands on Muchea Limestone
- ◆ Tumulus Springs of the Swan Coastal Plain
- ◆ Thrombolite Community of Lake Richmond
- ◆ Sedgeland of Holocene dune swales of the Swan Coastal Plain
- ◆ Woodlands and shrublands (of clay soils) of the eastern side of the Swan Coastal Plain (20c)
- ◆ *Eucalyptus calophylla*, *Kingia australis* woodlands on heavy soils Swan Coastal Plain (3a)
- ◆ *Eucalyptus calophylla*, *xanthorrhoea preissii* woodlands of the Swan Coastal Plain (3c)

(Continued from page 9)

Over the last two years, we (Robyn Shaw and Stephen Renton) have interviewed owners and managers of threatened ecological communities identified by Sheila. In interviews we've sought information on current management practices, barriers to management, levels of ecological knowledge, and information and other management needs. We now have detailed information for 19 landholders with threatened ecological communities in the central and northern wheatbelt. Such information is invaluable for preparing interim recovery plans. This value lies in recognising that although Sheila is preparing the plans, individual landholders will be responsible

for implementation. As such, the plans must be tailored to meet individual landholder's needs for information and other management assistance as well as being cognisant of each individual's level of ecological knowledge.

Stephen and Sue Moore are currently analysing the interviews. A final report will be available in the new year from Sue. We'd also like to include our findings in the next addition of *WATSNU*.

**For further information, contact Sue Moore who is a Lecturer, in Environmental Science, Murdoch University on (08) 9360 6484 or by Email: [smoore@essun1.murdoch.edu.au](mailto:smoore@essun1.murdoch.edu.au)**

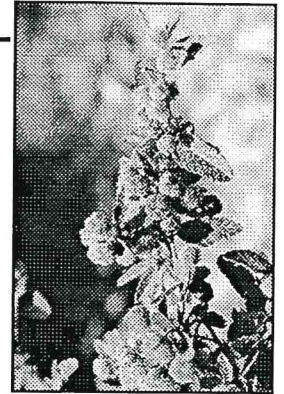
The Green Corps program will enable young people and the community to restore some of our most critically endangered ecological communities. They will also be lending a hand to some of Western Australia's most unique species including the Southern Brown Bandicoot, critically endangered Western Swamp Tortoise and the Lake Richmond Thrombolites.

**For further information, contact Alex on 94055 170 or by Email: [alexa@calm.wa.gov.au](mailto:alexa@calm.wa.gov.au)**

## Writing Interim Recovery Plans ~ a huge task!!

In the past three months our busy staff and project officers have completed 26 Interim Recovery Plans. Thanks to the input of a wide range of people within CALM and also representatives from recovery teams where appropriate, the plans have been approved by the Director of Nature Conservation. The plans have now been sent to Environment Australia where they will be submitted for adoption under the *Endangered Species Protection Act 1992*. This is part of our contractual obligations under the agreement with the Natural Heritage Trust's Endangered Species Program.

Of the 26 IRPs, 25 are for threatened flora and one is for a threatened ecological community.



*Trigwell's rulingia*

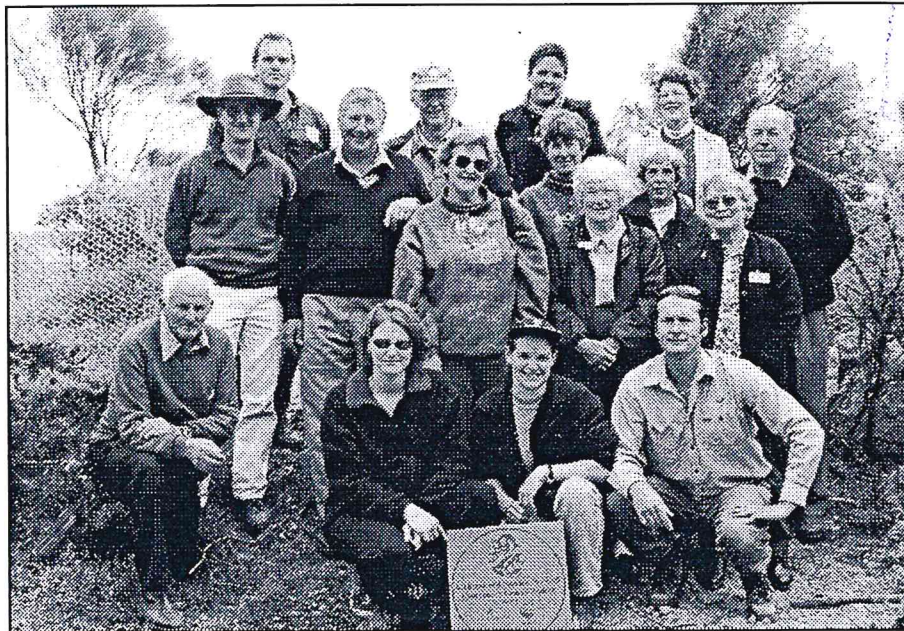
IRP No.	Species / community	Authors
20	Wongan Gully Acacia, <i>Acacia pharangites</i>	Rebecca Evans, Andrew Brown
21	Western Woolly Cyphanthera, <i>Cyphanthera odgersii</i>	Rebecca Evans, Andrew Brown
22	Blunt Wattle, <i>Acacia aprica</i> ms	Gillian Stack, Val English
23	Orange-flowered Wattle, <i>Acacia auratiflora</i> ms	Gillian Stack, Andrew Brown
24	Spiral Fruited Wattle, <i>Acacia cochlocarpa</i> subsp. <i>cochlocarpa</i> ms	Gillian Stack, Val English
25	Spreading Grevillea, <i>Grevillea humifusa</i>	Gillian Stack, Andrew Brown
26	Green Hill Thomasia, <i>Thomasia</i> sp. Green Hill	Rebecca Evans, Val English
27	Gingin Wax, <i>Chamelaucium</i> sp. Gingin	Rebecca Evans, Val English
28	Rough Emu Bush, <i>Eremophila scaberula</i>	Gillian Stack, Val English
29	Hinged Dragon Orchid, <i>Drakonorchis drakeoides</i> ms	Emma Holland, Andrew Brown, Kim Kershaw
30	Giant Andersonia, <i>Andersonia axilliflora</i>	Rebecca Evans, Sarah Barrett, Andrew Brown
31	Prostrate Flame Flower, <i>Chorizema humile</i>	Gillian Stack, Val English
32	Pungent Jacksonia, <i>Jacksonia pungens</i> ms	Rebecca Evans, Val English
33	Trigwell's Rulingia ( <i>Rulingia</i> sp.) Trigwell Bridge	Gillian Stack, Rebecca Evans, Val English
34	Abba Bell, <i>Darwinia</i> sp. Williamson	Gillian Stack, Rebecca Evans, Val English
35	Winged-fruited Lasiopetalum, <i>Lasiopetalum pterocarpum</i> ms	Gillian Stack, Val English
36	Western Prickly Honeysuckle, <i>Lambertia echinata</i> subsp. <i>occidentalis</i>	Gillian Stack, Rebecca Evans, Val English
37	Cunderdin daviesia, <i>Daviesia cunderedin</i>	Rebecca Evans, Andrew Brown
38	Milky Emu Bush, <i>Eremophila lactea</i>	Gillian Stack, Andrew Brown
39	Dwarf Spider Orchid, <i>Caladenia bryceana</i> subsp. <i>bryceana</i>	Emma Holland, Andrew Brown, Kim Kershaw
40	Pinnate-leaved Eremophila, <i>Eremophila pinnatifida</i> ms	Gillian Stack, Andrew Brown
41	Scott River Boronia, <i>Boronia exilis</i>	Rebecca Evans, Gillian Stack, Val English
42	Split-leaved Grevillea, <i>Grevillea althoferorum</i>	Sheila Hamilton-Brown, Val English
43	Mallee Box, <i>Eucalyptus cuprea</i>	Rebecca Evans, Andrew Brown, Val English
44	Shrubland Association on Southern Swan Coastal Plain Ironstone (Busselton area) (Southern Ironstone Association)	Val English
45	Cinnamon Sun Orchid, <i>Thelymitra manginii</i> ms.	Robyn Phillimore, Andrew Brown, Val English
46	Small-flowered Snottygobble <i>Persoonia micranthera</i>	Rebecca Evans, Sarah Barrett, Andrew Brown

Department of Conservation and Land Management

**WATSNU**

Editor: Jill Pryde  
WA Threatened Species & Communities Unit  
PO Box 51  
Wanneroo Western Australia 6946

Email: [jillp@calm.wa.gov.au](mailto:jillp@calm.wa.gov.au)  
Phone: 08 9405 5128  
Fax 08 9306 1066



*What would we do without volunteers!—see story on page 5*

*Goodbye and thank you. To Rebecca Evans (Bec) who assisted greatly in the writing of many Interim Recovery Plans. Thanks also for your wonderful personality and amazing "IT" knowledge!!*

*Goodluck in your new position as Conservation Officer with CALM's Swan Region.*