WATSNEWS

The Newsletter of the Western Australian Threatened Species & Communities Unit

Department of Conservation & Land Management

❖ Issue No 3 ❖ September 1994 ❖ PO Box 51 Wanneroo WA 6065 ❖

Update on Threatened Communities

Three research projects likely to be very significant for the conservation of threatened ecological communities in Western Australia are being funded by The Australian Nature Conservation Agency under the current round of the National Reserves System Cooperative Program. The first of these is titled Identifying and Conserving Threatened Ecological Communities (TECs) in the South West Botanical Province, and is being supervised by John Blyth of WATSCU. This project will employ a full-time consultant (has just started) for two years to do four main tasks.

- To develop a set of categories, equivalent to those currently used for threatened species, to assign conservation status (critical, endangered, vulnerable etc.) to identified communities.
- To establish scientific criteria for allocating each identified ecological community to one of the conservation categories.
- To identify threatened ecological communities in the South West Botanical Province and develop and maintain a database for them. The database will include information on distribution, land tenure, biological and abiological characteristics, and threats.
- To develop criteria for ranking threatened ecological communities for inclusion in the conservation reserve system and for other conservation actions, and use the resulting priority list to make recommendations for conservation actions.

The second project, supervised by Ken Wallace, Manager of CALM's Wheatbelt Region, and being conducted by Rod Safstrom with help from Denise True and Anne Coates, is titled Conservation Values of Small Reserves in the Central Wheatbelt. This project is intended to develop a practical system for identifying remnants of most value for nature conservation. It is hoped that much of the data gathered in this program will be able to be used to test criteria and categories established by the Threatened Ecological Communities project.

The third project is titled Regional Assessment of the Conservation Status of Vegetation Units Throughout Western Australia and is supervised by Angas Hopkins of CALM's Bioconservation Group in the Science and Information Division, and Peter Bowen who manages the Department's Land Information Branch. This project will use to assess all of the vegetation types identified by John Beard in his mapping of the State's vegetation assemblages. Taken together, these three projects should provide the procedures and the information so that threatened ecological communities can be identified, studied and recovered in a way as effective as that now routine for threatened species of plants and animals.

In addition to these developmental projects, efforts need to be made in the short term to ensure that critically threatened ecological communities which are already identified can be protected. Money is currently being sought from a variety of sources to prepare and begin implementing a recovery plan for seven threatened ecological communities on the eastern side of the Swan coastal plain.

JOHN BLYTH

Golden Bandicoot (or *Wintarru*)

A new project has begun with funding from ANCA titled Golden Bandicoot *Isoodon auratus*; taxonomy, distribution and status in the Kimberley. Gordon Graham from CALM's Kununurra office will be overseeing the project. The scope of the project includes establishing the species' conservation status on mainland Australia, comparing the Kimberley Golden Bandicoot with Barrow Island and Augustus Island animals and the Quenda, *I. obesulus*, from the southwest. Added to this, data will be obtained on habitat requirements, biology and ecology of Kimberley *I.auratus*.

Inside this issue

Lancelin Island Skink Recovery Team Report

by David Pearson

The Lancelin Island Skink, *Ctenotus lancelini*, is known only from Lancelin Island, an area of just 7.6 hectares. It was described in 1963 by Julian Ford as a subspecies of the more widespread, but geographically distant *Ctenotus labillardieri*. The late Glenn Storr of the Western Australian Museum elevated it to full species status in 1973. The restricted distribution of the species resulted in its listing as fauna which is rare or likely to become extinct under the WA Wildlife Conservation Act.

Ford and other herpetologists who visited the Island during the 1970s and 1980s reported it to be fairly abundant on the Island, sheltering below limestone boulders. However, when two Perth-based herpetologists, Robert Browne-Cooper and Brad Maryan, visited the Island in October 1991, they were unable to locate any *C. lancelini*. They alerted CALM and trapping efforts during 1992 resulted in the capture of only one individual. The cause of the decline was not clear, but was thought to have been due to habitat alteration caused by extensive weed growth over limestone outcrops on the Island, or as a result of predation by Silver Gulls.

Andrew Burbidge prepared interim management guidelines for the species which recommended among other things, the employment of a consultant to study the skink's ecology. Funding was sought from ANCA to carry out this project. Barbara Jones was employed in November 1993 and immediately set to work to locate the animal on the Island.

Meanwhile, the Lancelin Island Skink Recovery Team was formed with representatives from CALM (WATSCU, Science and Information Division and Moora District), the Western Australian Museum, the WA Society of Amateur Herpetologists, the Shire of Gingin, Perth Zoo, as well as Barb Jones. The first meeting was held in December 1993.

Barb Jones has now had considerable success pit-trapping *C. lancelini* on the Island, with around 60 individuals caught to date. Despite earlier perceptions that the species was confined to, or favoured limestone outcrops, it is now apparent that it is distributed across most of the Island, and is most abundant in areas of deep leaf litter in dune swales. Trapping has continued over winter, but *C. lancelini* has not been active.

The second meeting of the Recovery Team was held in Lancelin in April 1994 and was preceded by a visit to the Island. The meeting resolved many issues, including the need for better education of the local community about the values of Lancelin Island, an examination of the toxicology of the herbicide FUSILADE for the control of weeds on the Island, and the captive development of a captive breeding program to be run at Perth Zoo. The captive program will initially use a common analogue species, *C. labillardieri*, for breeding to determine the best techniques prior to bringing any *C. lancelini* into captivity.

Other future developments will be a report on visitor access and control on the Island, a genetic study of the relationship of *C. lancelini* to other *Ctenotus*, and better interpretative materials for visitors. Barb Jones' ecological work on the Island is continuing. This season she plans to gain a better understanding of habitat requirements, important predictors of activity, reproductive season and movements. The Recovery Team meets again in September to review the progress of the various initiatives aimed at saving this little skink.

Western Swamp Tortoises go back to the wild.....

The first release of captive bred animals from Perth Zoo occurred on Tuesday 6th September at Twin Swamps Nature Reserve, near Bullsbrook north of Perth. East Metropolitan MLC Derrick Tomlinson representing the Environment Minister Kevin Minson released the first of the tortoises. This is a significant step towards the preservation of the tortoise as their numbers declined considerably during the 1970s and 80s.

This has been made possible due to a fox-proof fence being constructed around the reserve, completed by CALM's Perth District and the WA Water Authority has constructed a bore, pump and pipelines to enable supplementation of swamps in the reserve.

This momentous event..... would not have been possible without the significant research contribution by Dr Gerald Kuchling of UWA, with assistance from CALM, Perth Zoo and Curtin University and apart from State Government funds (CALM and Perth Zoo), funds were contributed from ANCA's Endangered Species Program, World Wide Fund for Nature, WA Water Authority, several Perth companies and a reptile organisation in Germany.

Culminating with the release is the presentation of the new Western Swamp Tortoise Recovery Plan. This was compiled by Andrew Burbidge and Gerald Kuchling for the Western Swamp Tortoise Recovery Team which includes representatives from CALM, University of Western Australia's Zoology Department, Perth Zoo, Curtin University's School of Biomedical Science, Australian Nature Conservation Agency, the World Wide Fund for Nature and the Shire of Swan.

Lake Toolibin Report

by John Blyth

Implementation of the Recovery Plan is continuing, with several exciting developments over the last few months.

Perhaps the most heartening of these is the decision by CALM to commit an additional $120 000 towards this project in the current financial year, and a further $75 000 in each of the next four years. Much of this money will be spent on experimental revegetation projects, with a strong focus on commercial production and sustainable agriculture, on farming land in the Toolibin catchment. This will be a very significant step towards achieving a catchment-wide commitment to the Recovery Plan.

The money for this financial year will also pay for the design and establishment of outlet works and other groundworks which will assist to separate poor quality water and remove it from the lake. Planning is also proceeding for the establishment of further pumps in the most effective position to lower water table beneath the Lake.

Taken together, the two steps above will be critical in reducing the rate of salinisation of Lake Toolibin in the short term, and will provide for the longer term changes in catchment management to take effect.

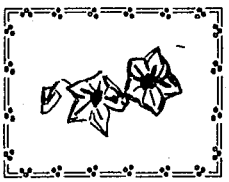
Continued and enhanced public support is essential for the success of the Lake Toolibin Recovery Plan, and an article explaining the significance of the Lake and the Recovery Plan has been completed for the next issue of *Landscope*. It is intended to produce multiple, full-colour copies of this article for use as a brochure to be distributed widely.

NEW CALM Policy Statement No 50

Setting priorities for the conservation of Western Australia's threatened flora and fauna.

This new Policy Statement has been developed to address the allocation of resources to threatened species of plants and animals. It provides that threatened taxa will be ranked according to degree of threat by a Ranking Panel of scientists from CALM and from external scientific institutions. Species ranked as critical (ie likely to become extinct in the short term unless action is taken) will be addressed immediately via the preparation and implementation of Recovery plans or Interim Wildlife Management Guidelines.

The first draft of this policy statement was developed by WATSCU after circulation of a discussion paper. The draft policy statement was released for public comment. Comments received have been considered by CALM and the draft amended in some cases.



THREATENED SPECIES DATA DIRECTORY

This database is being developed to provide a quick and easy means of viewing basic information held by CALM (and other agencies) on Western Australian threatened species and communities and finding our where other data is.

So far, all the gazetted threatened fauna and flora have been included, as well as the listed reserve fauna, though priority flora have yet to be added.

Common names for the gazetted fauna have been input and also for the gazetted flora (though not all flora species have a common name).

The list of departmental files, based at Como, have been added to the database and to this list will be added local and regional/district files - provided that the requested information is forthcoming (the response has been very patchy to date).

Coloured slides of threatened species are being catalogued and the catalogue is being added to the Directory.

Likewise, bibliographic references on threatened species and communities.

Very few experts have been mentioned in the *names* list as yet but we hope to have a comprehensive file of expertise completed for the first edition of the Data Directory on Diskettes - which should be available by December.

Rare flora found!

On one of Luke Sweedman's recent trips to an area north-east of Katanning he noticed an attractive and unusual plant which was displaying a large bright column of pale lilac flowers. Luke, who is a seed collector for Kings Park and Botanic Garden recognised the plant as a species of *Thomasia* which he had not previously seen or collected. After taking some cuttings for identification and propagation purposes the plant was identified as the very rare Hill Thomasia - *Thomasia montana*, a WA wildflower which is declared rare, previously only known from areas within CALM's Narrogin District where it occurs on lateritic red clay-laom soil in open low woodland.

The discovery of the rare Hill Thomasia has significantly extended its known range and may result in the discovery of further populations.

MIKE O'DONOGUE

Threatened Flora Management Program for the Geraldton District

by Sue Patrick

This program is now well under way and some interesting discoveries have already been made

The Recovery Team has met twice in Geraldton and includes representatives from CALM's Geraldton District, Science and Information Division, WA Threatened Species and Communities Unit, Kalbarri National Park Rangers, and CALM volunteers as well as representatives from other agencies including Main Roads, local shires, Wildflower Society, Pastoralists and Graziers Association and the joint funding agency the Australian Nature Conservation Agency. Elsa Dexter is now ANCA's Project Officer for this program, and when she recently visited Perth was able to discuss the program with Sue Patrick who is project investigator and Chairperson of the Recovery Team.

The list of taxa to be investigated in the District has increased considerably since the first proposal for the program was made more than a year ago. At that stage there were 155 taxa listed as endangered, vulnerable, presumed extinct or poorly known. This number has increased to 240.

There are several reasons for this increase. Some taxa have their main range of distribution in other districts, but research, particularly in the Moora District, has highlighted earlier records of occurrences within the Geraldton District, where these taxa may still occur and need to be investigated. CALM's Declared Rare and Priority Flora List for 1994 added further taxa, and the awareness that this work is underway has prompted several taxonomists to put forward others that are not yet included but need to be considered.

Field work in the District has already determined that one poorly known species, *Cryptandra micrantha* is more common than originally thought and need not be added to the list. So far this year 136 populations have been surveyed, mainly by Sue Patrick and Andrew Brown, with other members of the recovery team in particular areas, and with members of the W.A. Naturalists Club at Easter, when a possibly new species of *Baeckea* was found. A particularly interesting find in August was a population of *Darwinia repens* near Minginew. This declared rare species was originally found in that area in 1955, at a location since cleared. The populations found in 1988 are more than 40 km further north. The new population was growing on a road verge A new population of another DRF, *Caladenia hoffmanii,* was found on a nature reserve, only the second population of this species occurring on a conservation reserve.

Several populations of DRF have been found during the year to have been disturbed or damaged, and these have been noted and reported.

So far 91 new populations of priority taxa have been found and surveyed, and already several taxa will be reduced on the priority listing or removed from the list as a result.

A particularly beautiful species of *Hybanthus, H. cymulosus,* was known only from the Mt. Singleton area and had not been collected since 1968. Several populations were relocated in the same area, and also some 60 km further west, although some differences in these plants may pose a new taxonomic problem. *Grevillea scabrida* occurs with *H. cymulosus* and was also found to be more common than shown by previous records.

Fieldwork this year is being directed towards finding as many as possible of the 240 taxa on the list so as to become familiar with them in the field and to record the particular habitats in which they occur. During 1995 work will be directed more towards conservation areas to determine the conservation status of these taxa and to find further populations of those listed as endangered or vulnerable.

Despite the extremely dry summer, most taxa so far searched for have been found, even in the east of the District where *Pityrodia canaliculata* was in full flower near Sandstone in mid July, a month earlier than previously recorded. It is expected that the rest of the year and 1995 will bring many more exciting discoveries and will further increase our knowledge of this diverse and poorly known area.

Visit from ANCA'S wheatbelt project officer

by Andrew Brown

CALM recently had a whirlwind visit from Elsa Dexter of the Endangered Species Unit, Australian Nature Conservation Agency (ANCA). Elsa is the project officer responsible for all our wheatbelt ANCA funded recovery/management plans, as follows:

Merredin District Rare Flora Management Program - implementation
Geraldton District Rare Flora Management Program
Matchstick Banksia Recovery Plan
Rose Mallee Recovery Plan
Wongan Triggerplant Recovery Plan
Lake Toolibin Recovery Plan; and
Population dynamics and seed biology of endangered Eremophila species

The first couple of days Elsa met with some of the CALM staff involved in recovery plans for threatened flora, fauna and communities. With the kind services of Sue Patrick and Anne Kelly, Elsa saw first hand several species of Declared Rare Flora in the Swan Region. These included *Calytrix breviseta* subsp. *breviseta*, *Aponogeton hexatepalus* and *Hydrocotyle lemnoides*.

On Wednesday Elsa accompanied Andrew Brown to the Merredin District of CALM where they met with the District Manager Mike Fitzgerald and Claire Welbon, who is on a two year grant to implement the management recommendations made in the Merredin District Rare Flora Management Plan.

Mike and Claire were kind enough to show Andrew and Elsa some of the rare flora populations which occur in their district, and explained the many difficult management problems that are associated with small populations of DRF found in narrow, often very weedy roadside vegetation remnants.

It was whilst looking at one such population that a terrific discovery was made. Possibly the rarest and most threatened of all species found in the district is the Wyalkatchem Foxglove, *Pityrodia scabra*. Just two plants were known to occur in very weedy rail reserve and private property. Some 40 to 50 metres south of one of the two known plants Andrew found a new 40 cm high plant in full flower. This brings the total number of known plants to three and provides further genetic material for cross pollination. This is most important as the plant is self incompatible.

Following a most interesting day Elsa and Andrew took the long road south to Narrogin. The following day Elsa met up with members of the Lake Toolibin Recovery Team who had planned an all day on site meeting at the lake itself.

Early Friday morning Elsa met with Greg Durell, from our Narrogin District to look at *Banksia cuneata* before heading back to Perth for a 1 pm flight back to Canberra.

Elsa will go back with some fond memories of the West and will no doubt have a better understanding of what CALM is doing to ensure the recovery of our threatened species and communities.

Noisy Scrub-bird

In June this year, following release site surveys early in the year and intensive capture efforts, a small group of male Noisy Scrub-birds from Two Peoples Bay Nature Reserve were released at a new site in Torndirrup National Park south west of Albany. The persistence of these males at the release site will be monitored over the next 12 months to gauge the suitability of the area for establishing a new population of the scrub-bird. Females, which are more difficult to capture, will be added at the beginning of the next breeding season if the males have established territories.

Other work carried out under the Scrub-bird Recovery Plan during the breeding season this winter included a transfer of additional birds to Bald Island joining a group already on the island from a previous translocation. This transfer was performed with the generous assistance of Perth television station Channel 10 who provided a helicopter for the airlift from Two Peoples Bay to the almost inaccessible island. Bad weather and unsuitable flying conditions resulted in a series of frustrating postponements. The planned transfer was delayed for three weeks necessitating keeping the birds in the holding aviaries much longer than usual. The helicopter also allowed a monitoring team to survey the southern end of the island where three males were heard defending territories.

Further work in a study of the post-release behaviour of translocated scrub-birds was carried out in August. Two females released near an

Noisy Scrub-bird.....cont

established singing male at the Mermaid Point release site were radio-tracked for eight and 16 days.
A census of all the singing males in the whole Noisy Scrub-bird population is currently under way.
A decline in the number of scrub-birds in the lakes area - one of five subpopulations - appears to have continued this year. Pit-trap sampling of invertebrates in the Mt Gardner and Lakes area began this year in an effort to study seasonal and annual changes in food availability. This work should have implications for release site selection as well as possibly throwing light on the Lakes area decline.

WELCOME ABOARD!

WATSCU welcomes Val English who has been contracted for two years with funding from ANCA's Endangered Species Program to develop categories and procedures for listing threatened ecological communities (TECs) and to create a database on which TECs of the south west botanical province will be listed.
Val is a graduate of Murdoch University with a BSc in Biology and a post graduate Diploma in Environmental Impact Assessment. For the last three years she has worked for a consulting company on the survey and assessment of vegetation types and threatened flora.
Val is based at Woodvale and can be contacted on 09 4055 168

WATSCU also welcomes Gillian Stack who is with us on a voluntary basis assisting with the coordination and compilation of our slide index collection. With her help and the contribution from many people who have loaned their slides for duplication we are continuing to improve our catalogue.

We also welcome *Diana Papenfus.* As you all know Western Australia is endowed with an abundance of beautiful endemic flora. You may also know several of them are in the Endangered category. This year has identified 25 of these to be critically endangered and requiring immediate management intervention. With funding assistance from ANCA's Endangered Species Program *WATSCU* has engaged the services of Diana to prepare Interim Management Guidelines for 19 of these taxa. The other six are being researched separately.
Diana, an endemic Western Australian, comes to us with a practical background in land management. Following an eight year career with the National Parks and Wildlife Service in South Australia she is well qualified to understand the issues influencing the management of the plant taxa.
If you are interested in seeing a list of the taxa concerned in this project or wish to discuss the project with Diana she can be contacted at Woodvale on 09 4055 133.

Shark Bay Mouse update-

After the completion of the first two stages of the Shark Bay Mouse recovery plan (research into the biology, distribution and population size, and a translocation to Doole Island, Exmouth Gulf), phase three of the plan the experimental translocation to a mainland site, Heirisson Prong in Shark Bay, was due to take place in June this year. Heirisson Prong is a peninsula in Shark Bay across the bottom of which a fox proof fence has been erected. North of the fence fox and rabbit control has been undertaken reducing feral predators and competitors. Unfortunately only 10 mice were captured on Bernier Island (seven males and three females), this was not considered to be sufficient for a successful translocation to the mainland so these animals were flown back to Perth where they are being housed at the Perth Zoo until the translocation takes place.
Another attempt to obtain animals for translocation was made in August when only three animals were captured (two males and one female). The males were transferred to the Perth Zoo while the female, which was observed to be pregnant, has been retained at the Woodvale Research Centre. The female gave birth on 12 August to four young, all of which have survived. The young which were born naked with their eyes closed are now furred and their eyes are due to open shortly.
The lack of success in obtaining animals for the translocation is thought to be due to the natural fluctuation of the population which is usually low before and during the breeding season and increases when young are born into the population.
Another attempt to obtain animals for the release on Heirisson Prong is planned for November when the young in the population have been weaned and are dispersing. The animals caught on this trip will be released straight onto the Prong along with the animals held in captivity. These animals will be intensely monitored after the release by live trapping and radio tracking.

PETER SPELDEWINDE

Continuing our series on WATSCU personalities... John Blyth is coordinator for our threatened species and communities and a very keen bird watcher (feathered variety!)

John Blyth

John spent the first twelve years of his working life running a small mixed farm on the basalt plains at Sunbury, about 50 km north of Melbourne in Victoria. The need for and involvement in planting many trees on that bare, windswept property was his first introduction to landcare and rural nature conservation issues. The last couple of years on the farm were spent juggling farm management with part time study, to get to the stage of being able to start a tertiary science course. He began that course at Latrobe University in 1970, and finished with an honours degree in Zoology at the end of 1973. His honours thesis was on the ecology of assemblages of spiders in grassland and woodland. Those were the times when there were more biological positions than graduates to fill them, and John started immediately in a position at the Museum of Victoria, heading their newly established Biological Survey Department (an imposing name for four people and three microcopes squeezed into a one person room, and with no resources except those which could be obtained from outside the Museum).

Nevertheless, those early days of the environmental awakening saw much more money being spent on biological survey in relation to large developmental projects by State agencies. The fledgling Survey Department became involved in a number of large (and relatively long-term) research and monitoring projects on some of Victoria's major rivers. These included the Mitchell, Mitta Mitta, Thomson and La Trobe, and their tributaries. Field work took John and his colleagues into some of Victoria's most isolated and interesting places, (and some of the wettest, with soggy clothes and sleeping bags being frequent occupational hazards). Many reports and scientific papers resulted from these surveys, which made a significant contribution to the identification, and understanding of the distribution, of aquatic invertebrates in Victoria. They also added considerably to knowledge of the influence on aquatic fauna of disturbances such as sediment input, dams and power stations.

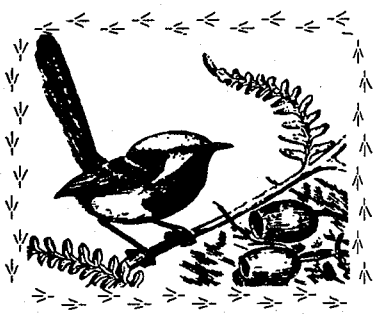
Unlike Andrew Burbidge, John cannot claim any charismatic vertebrate animals having been named after him, but does have a water-mite, a psyllid (leaf sucking bug) and a psocid (booklouse) so-named - it could be worse; they could be liver fluke or bed bugs!

John remained at the Museum of Victoria for twelve years and saw the Biological Survey Department expand to about twelve people, with a group involved in survey of terrestrial invertebrates in addition to the original emphasis on aquatic systems.

In July 1985, John moved to Perth to take up a position as Scientific Advisor to the then Director for Nature Conservation, Barry Wilson, at the Department's Crawley office. In that role he became involved in a wide range of issues including beekeeping on public land, policy for management of nature conservation lands and waters, Wetlands of International Importance, and the conservation of invertebrates. One of the most significant tasks over the last three years has been to coordinate the preparation of a soon-to-be-completed Nature Conservation Strategy for CALM. John also chairs, on behalf of the Director for Nature Conservation, the Roadside Conservation Committee, which encourages and coordinates the conservation of native vegetation along road and rail reserves and other service corridors.

Since joining WATSCU late in 1992, as a half-time coordinator for the identification and conservation of threatened ecological communities, John has been based at the Woodvale Wildlife Research Centre, with the rest of the WATSCU team. His first task is to develop criteria and procedures for the identification, listing and recovery of threatened communities in Western Australia.

Apart from nature conservation, John's main interests are natural history, especially birdwatching (he is a committee member and sometime Chairman of the Western Australian Group of the Royal Australasian Ornithologists Union), travel to isolated places, nature photography, table tennis, classical music and reading.



BANKWEST *LANDSCOPE* CONSERVATION VISA CARD

Income from the BankWest *Landscope* Conservation Visa Card has been allocated to projects that will enhance the conservation of some of Western Australia's most threatened species and ecological communities. The following projects have benefitted.

LANCELIN ISLAND SKINK

This skink is thought to occur only on the small, 7.6 hectare Lancelin Island, just offshore from the town of Lancelin. In 1992, an apparent major decline in its abundance promoted CALM to undertake a rapid survey of the island's habitats to assess the species' conservation status. This resulted in the capture of only a single skink.
A comprehensive survey and research project was then instituted, commencing late in 1993. This has resulted in the capture of about 40 skinks and the appreciation that they occur throughout the island. This study is continuing. A Recovery Team has been set up to coordinate research and actions to conserve the species.
Funds from the BankWest *Landscope* Conservation Visa Card have been allocated to survey areas of potential habitat on the adjacent mainland. This will be done by members of the Western Australian Society of Amateur Herpetologists, in conjunction with CALM. It will involve the identification of possible habitat using air photos, and ground survey using pit-fall trapping and intensive searching. This survey will also enhance knowledge about the distribution and conservation status of other reptiles.

WYALCATCHEM FOXGLOVE

In June 1992, only a single plant of this species was known to exist. Kings Park and Botanic Garden propagated additional plants by tissue culture but was unable to obtain viable seed because the species is self-infertile. Extensive searches in 1993 led to the discovery of one new plant and additional plants have been propagated from it.
Funds from the BankWest *Landscope* Conservation Visa Card have been allocated to enable trial planting of propagated plants into the wild. This will include growing plants in pots for establishment in the wild and site preparation, including rabbit and weed control.

STOP PRESS!!!!

A third plant has just been located by Andrew Brown **(see story on page 5)**

LAKE TOOLIBIN

Lake Toolibin, an important breeding habitat for freshwater birds, is the last significant remaining freshwater wetland with woodland vegetation in the southern Wheatbelt of Western Australia. Once this type of wetland was common, but most have become saline. Our freshwater wetlands are crucial for nature conservation and are a sensitive measure of the sustainability of farming practices.
A Recovery Plan has been prepared for Lake Toolibin. Necessarily, it adopts a catchment management approach, and to be successful, it needs the cooperation of all landowners in the Lake's catchment. The Plan is being implemented by a Recovery Team that includes representatives of the local farming community as well as government agencies.
It is important that people know about Lake Toolibin and the lessons that can be learnt from it. Funds from the BankWest *Landscope* Conservation Visa Card have been allocated to help prepare and print an information brochure, aimed particularly at local people.

TRIGWELL'S RULINGIA

This threatened species is known only from four individual plants, growing on private property near North Dinninup. Extensive searches have failed to find more. Observation of the remaining plants shows that they are under extreme stress from predation by Twenty Eight Parrots.
Temporary protective measures have been implemented, but to ensure that these plants survive and seed can be collected from them, parrot-proof, metal frame, wire netting cages are required. Funds from the BankWest *Landscope* Conservation Visa Card have been allocated to construct the cages and erect them at the site.

Recovery Team updates

Chuditch

The Recovery Plan has been approved by CALM's Corporate Executive and National Parks and Nature Conservation Authority and Lands and Forest Commission. It will now be passed on to the Minister for approval before publication.

STOP PRESS!!!!!

On Thursday 8 September the Perth metropolitan *White Pages* telephone directory launched their new cover. The Chuditch has been selected for the back cover of the book, highlighting the theme of community involvement in conservation.

Western Bristlebird

Now that the Western Bristlebird Research Plan has been funded by ANCA a Recovery Team has been set up to execute this Plan and eventually write and implement a Recovery Plan. The first meeting of the Recovery Team will be held in November. Members of the Recovery Team include: from CALM Alan Burbidge (who is the coordinator of the project), Alan Danks and Kelly Gillen from South Coast Region, Bruce Male (ANCA), Andrew Burbidge, RAOU's Brenda Newby and Graeme Smith who will be the consultant to carry out population surveys of the Western Bristlebird at Two peoples Bay. He will carry out the work between August and December 1994.

Thevenard Island Mouse

The Thevenard Island Mouse Research Plan and Interim Management

Dorion Morro, PhD student from UWA has now begun this project and will be examining the status, conservation and management of the Thevenard Island Mouse. He will concentrate on developing the taxonomic status of the Island form and assess the impact of *Mus* on *Leggadina* and develop *Mus* control techniques.

Woylie

The Woylie Recovery Plan is now in its final draft phase before being submitted for publication.

Matchstick Banksia

Since the commencement of implementing this recovery plan, considerable effort has been made in the area of promotion and seeking the support of local interest groups and Shire Councils. A major achievement was the hosting of a meeting in the Quairading Shire offices. A local shire councillor and interested Quairading townspeople attended the meeting. The completion of rabbit proof fencing and initial success at eradicating rabbits may prove successful for the recruitment of *Banksia cuneata* within the fenced sites.

Completion of a census from all populations will now enable annual monitoring of all populations to determine recruitment pattern or population decline.

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