WATSCU

The newsletter of the Western Australian Threatened Species and Communities Unit

Department of Conservation and Land Management

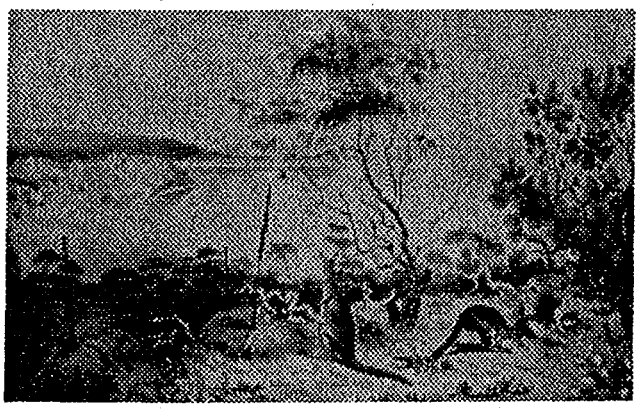
NO 1 ◆ SEPTEMBER/OCTOBER 1993

WHAT IS WATSCU?

WATSCU is the acronym for the Western Australian Threatened Species and Communities Unit. It was set up by the Department of Conservation and Land Management late last year and its mission is "To coordinate, assist with and promote the conservation of Western Australia's threatened plants, animals and ecological communities". WATSCU is part of CALM's Nature Conservation Division.

WATSCU has three, half-time, scientific staff and two full-time support staff. The scientific staff and their specialities are: Andrew Burbidge, animals; Andrew Brown, plants; and John Blyth, communities. Hugh Clift and Jill Pryde are the support staff.

At present WATSCU is concentrating on developing priorities for threatened species conservation research and management, developing and implementing Recovery Plans (or Interim Wildlife Management Guidelines) for the most threatened species and communities, developing a policy for the conservation of threatened communities, and promoting threatened species and communities conservation.



AUSTRALIAN NATURE CONSERVATION AGENCY ENDANGERED SPECIES PROGRAM FUNDING FOR 1993/94

The following are the new W.A. projects which are to be funded under the Endangered Species Program

- Lake Toolibin Recovery Plan (partial)
- Threatened Flora Management Plan for CALM's Central Forest and Southern Forest Districts (writing)
- Lancelin Island Skink interim management and research
- Thevenard Island Mouse Research and Recovery Plan (partial)
- Conservation biology and management of endangered Lambertia species (Recovery Plan must be prepared as a condition of funding)
- Merredin District Rare Flora Management Program (implementation)
- Western Bristlebird Research Plan
- Threatened Flora Management Plan for CALM's Geraldton district (writing)
- Endangered Fauna Data Records .

The following are the ongoing projects funded under the Endangered Species Program:

- Chuditch Recovery Plan
- Biology and ecology of endangered *Daviesia* species
- Matchstick Banksia Recovery Plan
- Noisy Scrub-bird Recovery Plan
- *Phytophthora* and *Diplodina canker* control in WA
- Population dynamics and conservation genetics of *Banksia brownii* and *B. verticillata*

- Population dynamics and seed biology of endangered *Eremophila* species
- Rose Mallee Recovery Plan
- Western Swamp Tortoise Recovery Plan
- Wongan Trigger Plant Recovery Plan
- Woylie Recovery Plan
- Yellow-bellied Frog Recovery Plan
- Shark Bay Mouse Recovery Plan
- White-bellied Frog Recovery Plan

AUSTRALIAN NATURE CONSERVATION AGENCY FERAL PESTS PROGRAM 1993/94

The following is the new Western Australian project which will be funded under the Feral Pests Program:

- Eradication of feral goats and sheep - Peron Peninsula

The following are the ongoing projects funded under the Feral Pests Program:

- Assessment of the effect of fox control on the Red-tailed Phascogale
- Methods for conventional control and research on ecology of foxes
- Methods of broadscale control of feral cats and fox control at a Numbat re-introduction site
- Predator control for the benefit of the Western Swamp Tortoise

THREATENED ECOLOGICAL COMMUNITIES

At the practical level, maintaining functioning ecosystems and their natural processes is the key to biological conservation. All species and communities of organisms require a functioning ecosystem in order to survive in the wild. Their loss is often a consequence of impaired functioning of the ecosystem of which they are a part and will have further adverse affects on the ecosystem.

Nevertheless, the identification and protection of threatened ecological communities is both newer and more complex than the approach for threatened species of plants and animals. There are a number of areas in which definitions and approaches remain to be established.

For instance, even the term ecological community does not necessarily mean the same thing to all who use it. I define it to mean an integrated and interacting assemblage of organisms which occur in a specific and recognisable ecosystem (which is associated with a particular set or range of abiotic factors) and which between them provide the biological processes which are characteristic of, and which support, the ecosystem.

Using this definition, we can identify particular communities, and describe the ways in which they differ, at any chosen scale. For example, freshwater wetlands which fill intermittently and for varying periods, and support woodlands of *Casuarina* and *Melaleuca*, used to occur widely throughout the wheatbelt and are readily distinguishable from other more saline or more permanently inundated wetlands.

In addition, it should be clearly recognisable to non-scientists that identified communities are different from each other. Using the same example as above, members of the public have no difficulty recognising a wetland of the type described, such as Lake Toolibin, and that it is different from surrounding terrestrial ecosystems, as well as from saline wetlands of the wheatbelt and from permanent freshwater lakes such as Lake Jasper.

The conservation status of particular communities can be assessed using the same type of information as that for simple description. However, in most cases more details, such as any historical changes in distribution or community composition or structure, will be needed. For instance, it can be shown readily that Lake Toolibin is almost the last remaining freshwater wetland in the wheatbelt that has not undergone severe modification as to its salinity, length of inundation and ecological community. It is also a simple matter to show that the ecological community supported by Lake Toolibin is critically endangered unless existing trends in hydrological balance and water quality can be halted.

Ecological communities may be degraded or modified, or transformed from one type to another, and in extreme cases, such as the Wheatbelt wetlands, this can result in permanent change in the same sense as the extinction of species. Nevertheless, because ecological communities cannot be defined in absolute terms, and because they vary in time and space, we need to think of them being threatened, not just with

extinction but with "significant modification or destruction".

Thus, in assessing the conservation status of ecological communities we need to consider not just the areal extent of the community in question, but its condition, and how much modification may occur before it is effectively destroyed.

A draft discussion paper titled "Identifying and Conserving Threatened Communities" was circulated within and outside CALM at the end of February 1993. This was a first attempt to identify the major issues involved, and to suggest a series of steps to be taken, to improve the protection of threatened communities

My desk was not exactly sagging under the weight of accumulated comments when I returned from four months long service leave, so I assume that the steps suggested in that paper did not arouse passionate opposition. Unfortunately, neither have they aroused passionate support. If WATSCU's role in coordinating and enhancing CALM's efforts to protect threatened communities is to be effective, I really do need as much guidance as possible from others involved in this field.

The next step, which should be completed by the time you read this, is the preparation of a draft policy statement for the Department. We propose first to seek approval in principle for the statement from the Corporate Executive, and then circulate it widely, both within and outside CALM, for comment.

In the meantime, the first meeting of the Lake Toolibin recovery team was held in September and is the subject of a separate item in this newsletter.

The other matter which may be of interest is that I have applied for Federal funds through the National Reserves System Cooperative Program, (funded by the Australian Nature Conservation Agency) to develop criteria for the identification of threatened ecological communities, and to apply them to the South West Botanical District. If the application is successful, it will greatly speed up the preparatory work and allow us to start developing conservation programs for threatened ecological communities much more quickly than would otherwise be the case.

JOHN BLYTH

Recovery Team meeting dates

The next round of meeting dates for the teams which met in July are scheduled as follows:

Western Swamp Tortoise Recovery Team
on Monday 13 December
at the Wildlife Research Centre Woodvale
and the following meetings are to be held at Batalling Forest in the South West of WA

Chuditch Recovery Team	am 14 December
Numbat Recovery Team	am 15 December
Woylie Recovery Team	pm 15 December
Stick-nest Rat Recovery Team	am 16 December

and the
Geocrinia Recovery Team am 17 December
at CALM in Margaret River

The Noisy Scrub-bird Recovery Team in late March 1994, and
Shark Bay Mouse Recovery Team in March 1994

The *The Noisy Scrub-bird Recovery Team* in late March 1994, and
Shark Bay Mouse Recovery Team in March 1994

The Eucalyptus rhodantha Recovery Team will meet in March 1994 at Moora,
The *Stylidium coronoforme Recovery Team* will meet in April 1994 at Wongan Hills.
The *Swan Region Rare Flora Recovery Team*, will meet the morning of 20 October 1993 at CALM's Kelmscott office; and the
Matchstick Banksia Recovery Team meeting date - to be advised

Recovery Team news

LAKE TOOLIBIN RECOVERY PLAN

The first meeting of the Lake Toolibin Recovery Team (and its associated technical advisory group) was held in Narrogin on September 10th. This was a historic occasion, as Lake Toolibin and its associated nature reserves is the first ecological community in Western Australia (and one of the first in Australia) to be identified as threatened and to have a recovery plan developed for it.

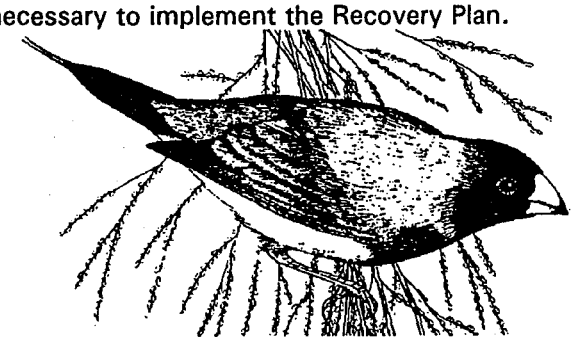
Production of the Recovery Plan was funded by the Australian Nature Conservation Agency under their Endangered Species Program. The Plan,

written by consultants, is the culmination of long running attempts to prevent the loss of Lake Toolibin as the last significant freshwater wetland in the Wheatbelt.

The recovery objective is "to ensure the long-term maintenance of Lake Toolibin and its surrounding nature reserves as a healthy and resilient freshwater ecosystem, suitable for continued waterbird usage at current high levels". Biological and physical criteria, by which the success of the Recovery Plan will be judged, have been set. Because Lake Toolibin is a classical example of the effects upon remnant communities of landscape processes and surrounding landuses, the plan involves an integrated strategy of short-term and ongoing measures at a local and catchment scale.

The immediate processes affecting Lake Toolibin are waterlogging, the inflow of saline drainage water and the continuing rise of saline groundwater. Because these processes have arisen from standard agricultural landuse across the whole catchment, the support and cooperation of the farming community is essential. Thus, the Recovery Team includes Grant Davenport and Gordon McDougall, farmers from the local Land Conservation District Committee, and Ted Rowley, Regional Manager of the W.A. Department of Agriculture. It is chaired by Ken Wallace, CALM's Regional Manager, and also includes Peter Helsby from the W.A. Water Authority and Russel James from the Australian Nature Conservation Agency. John Blyth and Jim Lane, both from CALM, complete the Recovery Team.

The first meeting of the Team was essentially a preliminary one, to allow members to get to know each other and to ensure that there was general agreement with the objective and general strategies of the Recovery Plan. Given the level of support in the local community for saving Lake Toolibin and for establishing sustainable agricultural systems within its catchment, it is likely that the biggest challenge facing the Recovery Team is to raise the substantial funds necessary to implement the Recovery Plan.



GOULDIAN FINCH RECOVERY TEAM

Allan Burbidge, of CALM's Science and Information Division, represents Western Australia on the newly constituted Gouldian Finch Recovery Team, which is based in the Northern Territory. The Team is chaired by the Australian Nature Conservation Agency and other representatives come from the Conservation Commission of the Northern Territory (CCNT), the Queensland Department of Environment and Heritage, the Royal Australasian Ornithologists Union, the World Wide Fund for Nature and Zapopan NL, a mining company which has leases covering Gouldian Finch habitat in the Northern Territory.

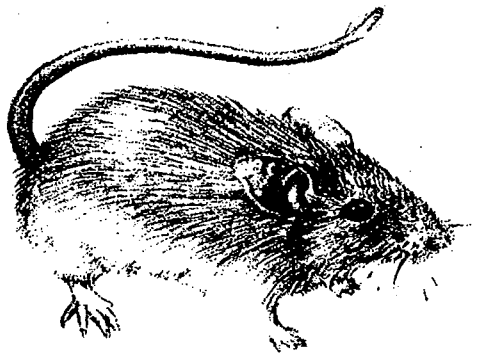
The Gouldian Finch has declined from being reasonably abundant only 20 years ago, to now being endangered. The species occurs in Western Australia, the Northern Territory and Queensland. In recent years, CCNT has conducted extensive research, supported by WWF Australia, into the finch's ecology and the causes of the decline. Many wild birds are infected with an air-sac mite, but it is not known if this is the primary cause or a symptom of birds being under stress from other factors.

The Team will be preparing a Recovery Plan for the Gouldian Finch in the near future. A full-time biologist will be appointed, based in the Northern Territory but responsible to the Recovery Team, to draft the Recovery Plan and conduct further research.

SHARK BAY MOUSE

The Shark Bay Mouse Recovery Team met on 20 September. Its members are Ron Shepherd (CALM Gascoyne District Manager, Chair), Andrew Burbidge (CALM, WATSCU), Brian Cane (Useless Loop Community Biosphere Project Group), Keith Morris (CALM, Science & Information Division), Ray Nias (WWF Australia), Jeff Short (CSIRO Division of Wildlife & Ecology), Sally Stephens (ANCA), and last but not least, Peter Speldewinde (CALM, Science & Information Division), who is conducting most of the field work.

Peter and Keith reported on progress with the translocation of the Shark Bay Mouse from Bernier Island, Shark Bay, to Doole Island, Exmouth Gulf. Two releases have been made; the first of 27



animals on 22 June, and the second of 16 animals on 7 September 1993. At the time of the second visit, the mice from the first translocation had established well and some were breeding. One male had moved about 3 km from the release point. Further monitoring of the translocated animals will take place in coming months.

There has been a lot of public interest in the project. Media interviews included one with an Alice Springs radio station - *Pseudomys fieldi* was previously known as the Alice Springs Mouse, but taxonomic research by Dr Alex Baynes from the Western Australian Museum shows that it and the Shark Bay Mouse, formerly known as *Pseudomys praeconis*, are the same species. *Pseudomys fieldi* is the older name and has precedence; but since the species was restricted to Bernier Island, it was thought that Shark Bay Mouse was the more appropriate common name.

The team has decided to review the Recovery Plan and re-write sections of it. The next major project will probably be an attempt to translocate animals from Bernier Island to Heirisson Prong, on the Shark Bay mainland.

NOISY SCRUB-BIRD

The Noisy Scrub-bird Recovery Team met at Two Peoples Bay Nature Reserve on 23 September 1993. The Team is chaired by Andrew Burbidge (CALM, WATSCU) and other members are Allan Burbidge (CALM Science & Information Division), Peter Cale, (representing the Noisy Scrub-bird volunteers), Allan Danks (CALM, Two Peoples Bay Nature Reserve), Kelly Gillen (CALM, South Coast Region), Bruce Male (Australian Nature Conservation Agency, Richard Rathbone (Shire of Albany), Graeme Smith (CSIRO Division of Wildlife and Ecology) and Gordon Wyre (CALM Wildlife Branch).

At the meeting the Team updated the Noisy Scrub-bird Recovery Plan so it was ready for publication and reviewed the draft Two Peoples Bay Nature Reserve Management Plan. Detailed comments on the draft Management Plan were prepared and forwarded to CALM's Planning Branch. A copy was also sent to WWF Australia who will be forwarding them to its International President, HRH Prince Philip, the Duke of Edinburgh, who has a personal interest in the species.

Noisy Scrub-birds continue to thrive. The 1992 census revealed 322 singing territorial males in four naturally increasing subpopulations plus two small additional areas in which translocation was currently underway. The 1993 census was incomplete at the time of writing, but we already know that there are now five naturally increasing subpopulations and more than 360 singing males. This compares to about 40 singing males in one population at the time of the species' rediscovery in 1961.

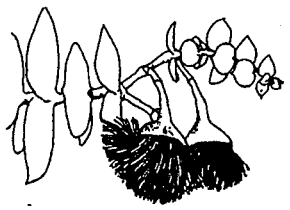
In 1992, with the help of Channel 10, five male scrub-birds were translocated to Bald Island. Two males were calling there this year showing that suitable habitat exists, Two further males and two females were translocated to Bald Island this year, again with the help of Channel 10's helicopter. Two males were also moved to the "Mermaid" translocation site, on the mainland opposite Bald Island.

Next year the Team plans to commence translocations to areas to the west of Albany.

SWAN FLORA MANAGEMENT PROGRAM - RECOVERY TEAM

The first meeting of the Swan Flora Management Program recovery team (a combination of the Northern Forest and Metro Region Management Programs) will be held on 20th October, 1993 at the Swan Regional Office in Kelmscott. Its members will (tentatively) be Alan Walker (CALM, Regional Manager, Swan Region, Chair), Paul Brown (CALM, Program Leader, Nature Conservation), Lyndon Mutter (CALM, Reserves Officer, Perth District), and Andrew Brown (CALM, WATSCU). Further CALM staff, representatives of other government organisations and local government will be co-opted as necessary.

EUCALYPTUS RODANTHA - RECOVERY TEAM



The *Eucalyptus rhodantha* recovery team met on 27th July, 1993 at CALM's SOHQ, Como. Its members are Dave Coates (CALM, Science & Information, Chair), Dave Rose (CALM, Moora), Ken Atkins (CALM, Wildlife Branch), Ken Borland (CALM, Moora), Andrew Brown (CALM, WATSCU), Steve Hopper (Director Kings Park & Botanic Garden), Anne Kelly (Consultant Botanist and Recovery Plan co-ordinator), Jane Samson (UWA), Bob & Glenys Scott (Property Managers, Watheroo), Charles Strahan (Shire of Three Springs), Matthew Warnock (CALM, Moora) and Mike O'Donoghue (CALM, Wildlife Branch and Recovery Team secretary).

Since the last recovery team meeting a number of management objectives have been or are in the process of being implemented. The following actions have been taken.

* an on site meeting held in October 1992 with the land manager, on whose land the largest extant population of *E. rhodantha* occurs, and CALM's district staff at Moora resulting in an agreement being reached in respect of the boundaries of a proposed reserve.
* A rabbit baiting program in the proximity of the two main stands of *E. rhodantha* at Watheroo.
* The propagation by RGC Mineral Sands nursery at Eneabba of approximately 1,000 seedlings of *E. rhodantha*, 500 of which have now been planted out into trial plots (it is envisaged that RGC will produce more seedlings and that a full scale re-introduction program will commence in 1994 once weed and rabbit control has been implemented).
* Contact with local schools in the Three Springs/Watheroo area with the view of encouraging them to plant *E. rhodantha* seedlings as an Arbour Day activity.
*The spraying of trial plots with the herbicide Roundup, the results are to be monitored prior to a full-scale spraying program in 1994.
* The publishing of an article about the Eucalyptus rhodantha recovery plan by the Cental Midlands Gazette (an article will also appear in the next edition of CALM News).

Although Rare Flora volunteers have not yet been involved in monitoring *E. rhodantha* it was decided that they be asked to provide assistance with plantings and monitoring in 1994.

Some fantastic news came from Bob Scott who reported to the meeting that several new populations of *E. rhodantha* had been located by local farmers in the Watheroo area (see article page 8). It is most rewarding to see the interest taken by local farmers without whom these new populations would not have been found.

STYLIDIUM CORONIFORME - RECOVERY TEAM

The *Stylidium coroniforme* recovery team met on the 19th July, 1993 at CALM's SOHQ, Como. Its members are Mike Fitzgerald (CALM, District Manager Merredin, Chair), Dave Coates (CALM, Science & Information), Ken Atkins (CALM, Wildlife Branch), Andrew Brown (CALM, WATSCU), Anne Kelly (Consultant Botanist and Recovery Plan co-ordinator), Roger Fryer (Kings Park & Botanic Garden), Gary Adlam (W.A. Water Authority), Works & Service Manager (Shire of Wongan-Ballidu), Anna Napier (Main Roads) and Mike O'Donoghue (CALM, Wildlife Branch and Recovery Team secretary).

The meeting proposed that CALM, the Shire of Wongan-Ballidu and Main Roads be involved in the site rehabilitation of the gravel pit area on the proposed *S. coroniforme* reserve near Wongan Hills and that this work be undertaken in conjunction with the Wheatbelt Aboriginal Corporation (WAC).

A number of surveys have now been undertaken in ares of suitable habitat between Wongan Hills and Maya during *S. coroniforme's* flowering period (August-October) without success. Further surveys will continue as time permits. Monitoring quadrats have been set up on two populations in the water reserve near Wongan Hills and will be monitored on a regular basis. Plants germinated from seed collected in 1992 have been forwarded to Kings Park and Botanic Gardens to grow on. These plants will be used in rehabilitation trials and some will be offered to the Shire of Wongan-Ballidu for use in their garden of rare and endangered plants.

The *Central Midlands Gazette* and *CALM News* have both published articles about the recovery plan.

The Biology and Ecology of the endangered Daviesia Species in WA

ANCA have provided funds for a two year investigation into the biology and ecology of endangered *Daviesia* species in Western Australia.

In a study on *Daviesia* by Michael Crisp in 1985, it was reported that many species of this genus appear to be rare or vulnerable and that 70% of these are found in the Wheatbelt of Western Australia. There are 22 species of *Daviesia* included on the CALM lists of threatened, rare or poorly known flora in Western Australia. Nine of these species are on the schedule of declared rare flora and are regarded as being threatened. Five of these species are included on a priority list for species considered to be endangered and in need of recovery action.

The reasons for the high proportion of *Daviesia* species appearing to be rare or vulnerable are the degree of habitat disturbance in the wheatbelt region, and the biology of the genus. Crisp refers to the shrubs responding to disturbance, and being more common and vigorous along road verges than in adjacent undisturbed land. Also, fire is regarded as being a common stimulus to regeneration.

The recovery and management of these species thus requires an understanding of their biology such that management practices may be implemented that do not cause further habitat deterioration.

The species proposed for investigation are:

- *D. bursarioides* ms
- *D. euphorbioides*
- *D. microcarpa* ms
- *D. purpurascens*
- *D. speciosa* ms

It is further anticipated that the results from this research will provide management guidelines for other species on the priority list for recovery, especially for other legume species such as *Gastrolobium* species.

The project is being undertaken by Thomas Schwarten, a Masters student through the University of Western Australia and Kings Park and Botanic Garden, with joint supervision by Dr K Dixon (Kings Park and Botanic Garden), Professor J Pate (University of Western Australia) and Dr. K Atkins (Department of CALM).

The project has only just started, but already the increased interest in this group of plants has resulted in the discovery of further populations of *Daviesia purpurascens*.

NEWSFLASH

Grevillea scapigera

Interim Management Guidelines have been approved. These guidelines detail an investigation being undertaken by Maurizio Rosetto, a PhD student at Kings Park and Botanic Garden, intended to investigate the potential for reintroducing micropropagated plants developed from cryostored material, and then held in cold storage.

The management team for this project includes CALM Wildlife Branch, Science and Information Division and District staff, as well as Darralyn Ebsary, a local volunteer from the Corrigin area. The interest being demonstrated by the local community in this species, commonly known as the Corrigin Grevillea, should augur well for the conservation of this species.

GOOD NEWS ITEMS from the Moora District

Silky eremophila - *Eremophila nivea*

A new population of the rare silky eremophila has been found near Three Springs.

Guy Richmond, a Ph.D student at Curtin University who is doing a study on rare & endangered Eremophilas in Western Australia,

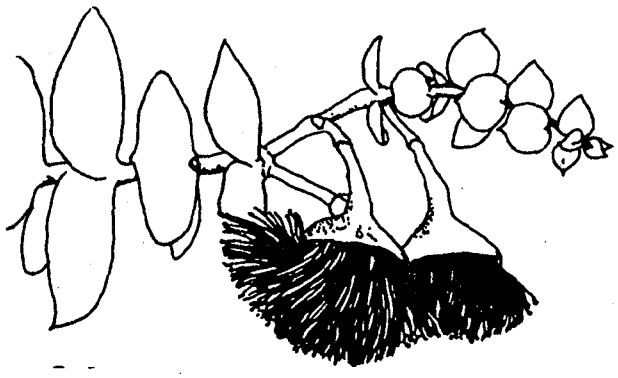
discovered the new population in a small remnant of native bushland on private property whilst conducting surveys in the Three Springs area. The population contains approximately 200 healthy plants.

This is great news and goes to show how important small areas of remnant bushland are. Until now, *Eremophila nivea* was known from a few very small populations on severely degraded road verges.

Rose Mallee - *Eucalyptus rhodantha*

New populations of the rare rose mallee have been found near Watheroo.

At a recent *Eucalyptus rhodantha* recovery plan meeting, Bob Scott of Watheroo who has a large population of this rare species on his property, showed members of the recovery team a flowering sprig from a newly discovered population. Several members of the recovery team travelled to Watheroo in early August to visit the new populations and meet the landowners. The largest population, of more that two hundred plants, occurs in an extensive area of undisturbed bushland. The population and associated vegetation are in excellent condition and several interesting fauna species have been reported from the area. Presumed hybrids between the rose mallee and the pear-fruited mallee (*E. pyriformis*) were found throughout the population, displaying a range of flower colour and leaf forms. Four smaller populations occur nearby in remnants of vegetation along paddock boundaries. One of these sites was burnt four years ago and the rose mallees were resprouting well from their lignotubers. With less than five hundred plants previously recorded, these new populations significantly improve the conservation status of this species.



Daviesia sp. (Norseman)

During a recent (mid Sept.) trip to Eyre Bird Observatory I had the opportunity to visit the single known population of the above species. (see photograph 92 on page 50 in *Western Australia's Endangered Flora*).

Just twelve plants are known, growing in rocky soil in a narrow degraded road verge on the north side of the Eyre Highway east of Norseman.

The species was in full bloom and therefore easy to spot, but despite extensive searches in other likely areas of habitat no further plants were found.

Because of its low numbers, habitat specificity and occurrence in an area that is prone to accidental destruction, the single known population could be easily destroyed.

The newly funded study of the Biology and Ecology of endangered *Daviesia* species in WA will undoubtedly initiate further surveys for this threatened plant and, given a bit of luck, new populations found.

ANDREW BROWN

The following is a very brief look at a report which is in preparation by Greg Keighery, Neil Gibson (of Science & Information Division) and Bronwen Keighery.

Conservation of ironstone communities and their endemic plants of the Swan and Scott Coastal Plains

Within a 2-3 hour drive from Perth, in a botanically "well known" area a series of unusual plant communities which are perhaps now the rarest in Western Australia are in urgent need of management action to ensure their survival.

After a number of surveys conducted between 1991-and 1993 by Greg Keighery, Neil Gibson and Bronwen Keighery (funded by an Australian Nature Conservation Agency Endangered Species Grant and the Australian Heritage Commission) have revealed a series of unusual plant communities associated with perched ephemeral wetlands on shallow soils over ironstone. These communities

are very restricted in area, contain a series of plant taxa only found associated with these wetlands and their margins and have been reduced to very small remnants by grazing and clearing.

During this remarkable survey 18 unnamed plant species have been discovered and all are located within easy access of Perth on the Coastal Plain, and astonishingly enough are mostly shrubs of a reasonable size with attractive flowers, including the families of Asteraceae, Epacridaceae, Fabaceae, Myrtaceae, Proteaceae and Restionaceae

Several of these species are being proposed as endangered flora and the group are detailing an action plan to be circulated.

REPORT ON A SURVEY OF THE RECHERCHE CAPE BARREN GOOSE, APRIL 1993

The following is a precis of a report by Andrew Burbidge, Stuart Halse, Jim Lane, Bernard Haberley and Grant Pearson of the Department of Conservation and Land Management, recently sent to the Australian Nature Conservation Agency.

The Recherche Cape Barren Goose *Cereopsis novaehollandiae grisea* is restricted to Western Australia, breeding only on islands in and near the Archipelago of the Recherche off the State's south coast, near Esperance.

Consultancy Agreement No. 372 between the Australian Nature Conservation Agency (ANCA) and the Western Australian Department of Conservation and Land Management (CALM) provided for a study titled "Assess the population status of *Cereopsis novaehollandiae grisea*, the western subspecies of the Cape Barren Goose". The helicopter survey took place between 20 and 27 April 1993. All islands (except two) in the Archipelago of the Recherche were examined, plus several islands to the west. Altogether 631 birds were counted. It is unlikely that many birds were missed during the surveys and we suggest the total population is probably no more than 650 birds.

Comparison of our data with earlier counts suggested that there has been no significant decline in the numbers of geese. However, it is clear that goose numbers were significantly lower in the autumn of 1991 and this is correlated with deaths occurring during a very hot and dry summer. The taxon still appears to meet criteria for 'Endangered' under the Mace-Lande criteria. However, the Mace-Lande criteria have now been superseded and under the revised draft criteria, the subspecies would be listed as 'Vulnerable', meeting criterion A (population estimated to number less than 1 000 mature individuals).

At this stage, developing a Recovery Plan for the Recherche Cape Barren Goose seems unnecessary. The population appears to be stable and able to recover from natural disturbance. However, because of the small size of the population and uncertainty about population dynamics, we recommend that there should be at least one more helicopter survey of numbers, preferably in another two or three years.

WATSCU PERSONALITIES

This will be a regular segment to introduce you to the WATSCU staff. The first in the series is Andrew Burbidge who is Director of our Unit

Andrew Burbidge

Andrew obtained a B.Sc. (Hons) and Ph.D. at the University of Western Australia. His Ph.D. thesis topic was "Biology of Western Australian Tortoises" and it concentrated on the ecology and conservation of the Western Swamp Tortoise, a subject he is still working on. During 1967-68 Andrew was a temporary Assistant Professor of Zoology at the University of Texas at Austin, where he studied freshwater turtles and frogs. In October 1968 he took up the position of Research Officer with the then Department of Fisheries and Fauna (later Department of Fisheries and Wildlife), where he was given the responsibility of developing management strategies for nature reserves.

As the Wildlife Research Branch of the Department grew, Andrew became the Branch Manager and participated in research studies all over the State. He particularly remembers leading the series of biological survey expeditions to the Kimberley, between 1971 and 1975, which provided the first comprehensive surveys of islands and existing mainland conservation reserves and which provided the basis for EPA recommendations for a Kimberley nature conservation reserves system. Research into the conservation and ecology of desert animals was another highlight of this

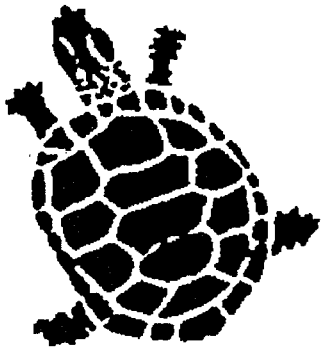
period. Andrew has written many scientific papers, reports, and educational articles, and has edited or co-edited a number of major reports and books.

His research work in the Kimberley was recognised in the naming of two Kimberley animals, discovered during the expeditions, after him. These are the skink *Ctenotus burbidgei* Storr 1975 and the Monjon (a rock-wallaby) *Petrogale burbidgei* Kitchener & Sanson 1978.

In 1985, with the formation of CALM, Andrew became a Senior Principal Research Scientist, and from 1987 to 1992 was CALM's Director of Research. He was appointed Director of WATSCU in 1992.

Between 1972 and 1977, Andrew was a member of the EPA's Conservation Through Reserves Committee's Technical Subcommittee, which generated many recommendations for additional national parks and nature reserves in the State. Other committees and boards on which he has served include the Bush Fires Board, the Peel Inlet Management Advisory Committee and Peel Inlet Management Authority, Environmental Protection Authority Working Group on Land Releases, the Working Party assisting the Western Australian Agricultural Land Release Review Cabinet Committee, *Australian Wildlife Research* Editorial Committee, and the Scientific Advisory Committee, World Wide Fund for Nature Australia. Andrew is currently chairperson of the Commonwealth Government's Endangered Species Advisory Committee and Endangered Species Scientific Subcommittee and of the IUCN Species Survival Commission's Australasian Marsupials and Monotremes Specialist Group.

He lists his hobbies as squash, table tennis, tennis, photography, natural history, nature conservation, reading, writing, classical music, watching television current affairs and documentaries, gardening, and travel.



Other WATSCU NEWS

WATSCU PHOTOGRAPHIC CATALOGUE

With many requests for good quality slides and prints, for publications, talks, education, identification etc, WATSCU has decided to develop a Photographic Catalogue of Threatened Flora and Fauna.

But we will need a lot of help and are appealing to people who have such treasures in their keep to let us copy and catalogue them for preservation for the future. At any time a photograph is to be used the author will be contacted and duly acknowledged.

A letter will be sent out shortly, but if you wish to donate slides/photographs, please contact myself or Andrew Brown direct.

In anticipation...JILL PRYDE

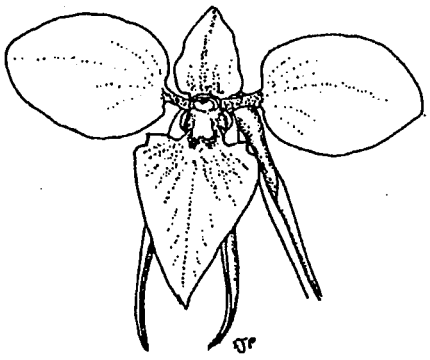
THREATENED SPECIES DATA DIRECTORY

A Discussion Paper is being sent to all Regional and District Managers, asking for comments on a proposed data directory on diskette, which would include (hopefully) all CALM's information on threatened species in W.A. Information regarding the exact location of threatened species would need to be kept confidential but all other data should be freely available. If you would like to receive a copy of the Discussion Paper or contribute your ideas please let Hugh Clift know (phone 405 5169) or write c/- P.O. Box 51, Wanneroo, 6065. Responses are requested by 29th October, 1993.

WATSCU DISCUSSION PAPERS - STATUS AS AT 16 September 1993

WATSCU Discussion Papers propose ways and means of conserving, or promoting the conservation of, threatened species and communities in Western Australia. They are proposals and are not CALM policy until adopted. Some are available for general comment. Copies of these can be obtained by contacting Jill Pryde, Secretary WATSCU, PO Box 51, Wanneroo, WA 6065, telephone (09) 405 5218.

No	Title	Author(s)	Status
1	Records Management	Hugh Clift, Andrew Burbidge	Internal paper, not distributed. In abeyance due to technological difficulties and lack of finance
2	Consultative Committee or Advisory Council?	Andrew Burbidge	Internal paper, not distributed. Action Completed
3	Setting Priorities for Research and Management of Western Australia's Threatened Plants and Animals	Andrew Burbidge, Andrew Brown	Distributed for comment, 25 March 1993, return date 30 April 1993. Draft Policy Statement No 50 endorsed in principle by Corporate Executive, distributed for public comment 25 August 1993, return date 30 September
4	Introduced Predator Exclusion Sites, Fauna Reconstruction Sites and Fauna Recovery Sites	Andrew Burbidge, Tony Start, Jack Kinnear	Distributed for comment, April 1993. Policy 29 revised, to be submitted to Corporate Executive shortly
5	Threatened Species And Communities Databases	Andrew Burbidge	In abeyance until decisions concerning Nos 8, 9 and 10 are complete.
6	Identifying And Conserving Threatened Communities	John Blyth	Distributed for comment, 2 March 1993, return date 30 June 1993. Draft Policy Statement prepared, to be submitted to Corporate Executive shortly
7	A Proposed Training Program on Threatened Species and Communities	Andrew Brown, Hugh Clift	Internal draft circulated, February 1993. In abeyance. Refer to Discussion Paper No 9
8	Data Directory	Hugh Clift	First internal draft 30/7/93, almost ready for distribution
9	Skills/Knowledge Manual	Hugh Clift, Andrew Brown	Internal draft completed, 7 September 1993, sent to Director of Nature Conservation
10	Standard Information System	Hugh Clift	Draft completed 10 September 1993, referred to Manager, Wheatbelt Region



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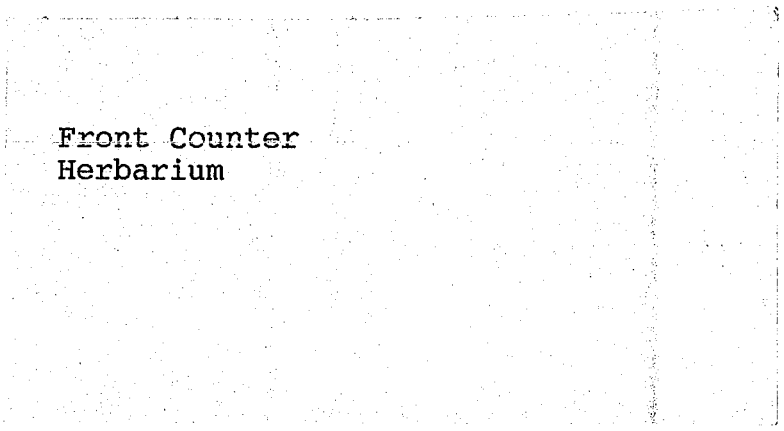
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