



I.F.F.A.
Indigenous Flora & Fauna Association

INDIGENOTES

ISSUE NUMBER 17, SEPTEMBER- OCTOBER 1988.

September Meeting

Tuesday September 27th. **Dr Terry Wells from the Institute of Terrestrial Ecology, Monks Wood, Huntington, U.K., a highly respected ecologist who works on the ecology of rare species especially orchids and flora restoration and management, will speak on "Flora restoration".** 8 p.m. at the Environment Centre, first floor, Ross House, 247 Flinders Lane, Melbourne (between Swanston and Elizabeth Streets). To get in, press the doorbell on the right hand side of the door.

October Meeting

Tuesday 25th.

Articles

Contributions to Indigenotes should be sent to the Editor, Tony Faithfull, 10 Alsace Street, Brunswick East 3057 (03) 3860264. The deadline for no. 18 (November) is Friday 11th November.

President: Geoff Carr, 29 Fenwick St, Clifton Hill 3068. (03) 4894191 (w)

Secretary: Michele Arundell, 2/81 Alexandra Ave, South Yarra 3141. Phone (03) 6494434 (w), or (03) 2674173 (h).

Treasurer: Dale Tonkinson, C/o Botany Department, La Trobe University, Bundoora Vic 3083.

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The release of captive sugar gliders into Coranderrk Reserve, Healesville.

By Karen Roach, Keeper, Healesville Sanctuary*.

The Coranderrk Reserve is one of the few remaining areas of virgin forest in the Yarra Valley, and was added to Healesville Sanctuary in 1955. It was the last unused remnant of a former aboriginal station and took its name from the Christmas bush which grew profusely along the banks of Badger Creek.

Due to an overabundance of sugar gliders held in captivity at Healesville Sanctuary, seven males were found to be in surplus to our requirements and those of other institutions. It was decided that the gliders would be released and their activities monitored and recorded for as long as possible.

As the release was to occur in May (1987), the site had to contain adequate nest hollows and Acacia for the autumn/winter food supply. An area within walking distance from the accommodation hut was chosen, as this contained mature manna gums (*Eucalyptus viminalis*), narrow-leaved peppermints (*E. radiata*), and a corridor of silver wattle (*Acacia dealbata*) with occasional blackwood (*A. melanoxylon*).

The gliders were formed into a group in one of our small mammal breeding pens and tagged for identification in the wild. Numbered metal ear tags were attached to the top inner edge of their right ears, and coloured reflective tape was then applied. Within a few weeks the gliders were all sleeping in the same nest box, and after another fortnight they were encouraged to use the nest boxes in which they would be released.

A survey of the site was undertaken to determine the presence of a resident glider population or any predators. As gliders emerge around dusk, the area was surveyed between dusk and 11 p.m. on four consecutive nights; no gliders were seen, however boobook owls and kookaburras were heard calling nearby.

On May 22nd the gliders were locked into their nest box and this was attached to a large, dead manna gum stag in the centre of the site. Four

alternative boxes were also provided on nearby manna gums, and wire frames for food bowls were placed above them. The entrance to the occupied box was opened shortly after dusk and all gliders emerged within the next 1 1/2 hours. One was recaptured as it was found to have damaged feet and could not climb the stag, however the remaining six spent the next few hours exploring the stag. One attempt to glide was made, although it was not particularly successful, and the animal was helped back onto the stag.

Within a week the gliders were moving about the area, usually between three of the five boxes. Regular short glides were made and the supplementary food was eaten before commencement of the night's activity. Wild gliders were first seen on the third night after release, and several interactions were noted in the next few weeks. On one occasion a wild glider fed from the food bowl beside two released gliders and on another occasion an aggressive display was followed by a released male mating a wild female.

After six weeks supplementary feeding was halted as released gliders were seen feeding naturally, and honey was then used as a "bait" to aid detection. Up until 3 1/2 months after release tagged gliders were seen, and nest boxes were not used a month prior to the last sighting. This indication that natural nest hollows had been found, together with observations of normal feeding behaviour, suggested that the gliders had been rehabilitated within three months.

The area has been checked monthly since February 1988, although it has been almost a year since the last sighting. Wild gliders are usually seen each month, and some made a nest of dry, green manna gum leaves in one of the emptied boxes, although this was only used for a short time. Monthly spotlighting excursions will be held until the end of the year, and anyone interested is welcome to attend. Other species which have been recorded include the feathertail glider, yellow-bellied glider, common ringtail possum, microbats, swamp wallaby, eastern grey kangaroo, Victorian koala, Antechinus, powerful owl, boobook owl and tawny frogmouth.

* 2 Edward St, Healesville. Phone (059) 625115.

Observations at Greswell

By Peter Tucker*

The Greswell Wildlife Reserve in Greenwood Drive, Bundoora, is one of the two reserves managed by La Trobe University. The other is located on the University campus.

Greswell is approximately fifty hectares of remnant river red gum woodland of varying quality, including several hectares of *Themeda* (kangaroo grass) grassland, woodland with indigenous species dominating the understorey, to a stunning wildflower patch. Unfortunately some areas, due to a previous history of disturbance, could best be described as weedscapes.

Last year four people - Jenny, Ross, Zoe and I were employed under a Community Employment Programme scheme to train as Environmental Technicians for a year. Recently I visited Greswell to view the progress and results of works we had undertaken.

A major target of our efforts had been the spraying of blackberry, which had overrun several large areas of the reserve, especially along the water-courses and other disturbed sites. It looks as though we have been successful in containing the spread of this noxious weed as some areas looked pretty dead. However we were only able to spray the outer perimeter of the large expanses of blackberry, necessitating further attempts at eradication. Each successive attack will be able to penetrate further into these clumps. It was great to see young wattles and eucalypts shooting upwards, surrounded by dead blackberry canes. What did we use to achieve this result? One litre of Krenite in one hundred litres of water, with a small amount (a capful) of Agaryl (a wetting agent), and Redye (a red dye) to show where we had been. It took a lot of determination, team spirit and much effort for us to cover all of Greswell. What a sight we were - almost aliens wearing full length one piece mobile sauna outfits and carrying oversized water pistols, but when looking around now I know it was worthwhile. The spraying was carried out in February and March 1988.

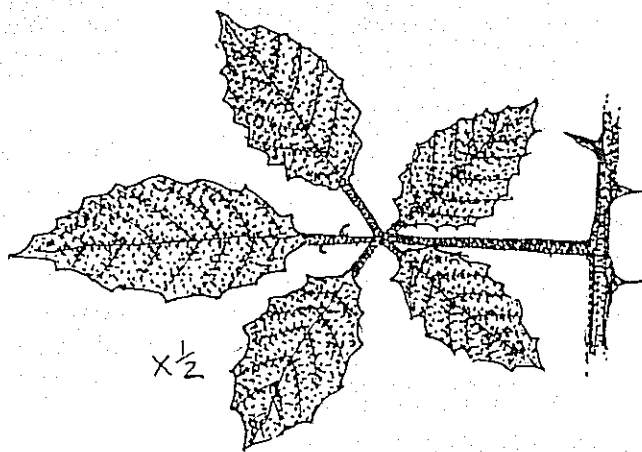
An area next to the *Themeda* grassland was burned during summer, with promising looking results, with regrowth of beautiful tussocks of *Poa*, *Themeda* and *Microlaena stipaoides* (weeping grass). After the fire we followed up with spot

spraying of briar rose and blackberry. These also look like being fairly successful treatments.

One problem which will require further management and action is that of controlling an invasive species of Irid which is spreading outwards from the south-east corner of the reserve. It almost certainly escaped from cultivation.

Returning to highlights though, just being able to walk around in a forest environment with wattles blooming in the understorey and the ground cover lighting up with *Dianella* (flax-lily), the fragrant chocolate lily, flowering spikes of kangaroo grass and the beautiful, scrambling, small-leaved clematis. Other species are beginning to develop their floral displays for summer. All this to the accompaniment of bell miners, wattle-birds, willie-wagtails, superb fairy wrens, eastern rosellas and many other bird species.

A visit to the reserves is highly recommended as I'm sure you'll find the experience enjoyable and rewarding. Working bees are held at the Campus Reserve on the last Sunday of each month, with October actually being held at Greswell. Details of the working bees or the role and function of the Wildlife Reserves can be gained by contacting George Paras or Laurie Whelan on (03) 479 2871. •



*2/81 Alexandra Ave South Yarra 3141.

Habitats to order

Man-made habitats are no substitute for the real thing, say William Sutherland and Chris Gibson

THE TIDE of public opinion appears to be turning in favour of the conservationists. Farmers are planting trees; urban wastelands are being converted into wild-flower meadows; heaths are being moved to save butterflies; there is even talk of recreating ancient woodlands. Creation is increasingly being seen as the saviour of conservation in Britain. Unfortunately, in our reliance on technology, we may be losing sight of the more fundamental aims of conservation, and of the potentially simpler and more effective solutions to the problems of conservation today. The danger is that developers and conservationists alike will come to believe that all damage can be rectified and that threats can be alleviated by habitat creation.

One of the most popular forms of habitat creation is the planting of wild-flower meadows. We have planted them ourselves and enthused over the poppies and corncockles. The showy plants are, however, often annuals and are soon replaced by a drab mixture of perennials. Oliver Gilbert, of the University of Sheffield, has measured the decline in species. After two years, the introduced wild flowers were looking attractive and composed 47 per cent of the vegetation cover. However, this declined to 18-per-cent cover by the third year and 4.7-per-cent by the fourth. By this time, only three of the introduced species survived.

Man-made wild-flower meadows have usually provided only a temporary answer to the nationwide loss of species-rich grassland. That such grassland has persisted in Britain throughout the millennia must suggest that there is a preferable alternative to habitat creation: the introduction of a sympathetic regime for managing existing habitats. In 1981 the University of East Anglia stopped cutting a large area of grassland every three weeks and adopted the simple measure of leaving the grass to grow until summer when it is mown for hay. The diversity of plants has increased dramatically, and the meadow now provides a bank of colour which looks beautiful, harbours butterflies and bees, attracts widespread compliments, saves money for maintenance and generates a small income through the sale of hay.

To take another example, the city of Sheffield has learnt the hard way that preservation and management are often better than attempts at creating habitats. In 1984, Sheffield City Council decided to establish a series of different plant communities in the disused parts of the grounds of a local school. At a cost of £1000, it set up a series of plots with imported topsoil and added seed mixtures of appropriate species. These were soon outcompeted by the plants derived from the seeds already in the topsoil. The council also introduced native shrubs but these were inadvertently cut down by maintenance workers. At the end

William Sutherland and Chris Gibson work in the School of Biological Sciences at the University of East Anglia

of the first season, the council had to admit that the plots had failed.

By way of contrast, Sheffield City Council also possesses and sensibly manages areas of vacant land. Due in part to the enthusiasm of the Sheffield City Wildlife Group and the enlightened attitude of some council officers, the council now recognises the interest and importance of these areas. Management usually consists of digging a ditch and bank around the perimeter to prevent cars getting in and to discourage dumping, while a mown edge shows that the site is being looked after



Hands that do ditches... Conservation is best served by careful management of existing resources

rather than simply abandoned, and the interior is allowed to regenerate naturally.

In this way, the individual characteristics are retained rather than being swamped under the largely predictable community of a commercial seed mix. On disturbed urban sites left to their own devices in Norwich, we have recorded more than 150 species of plants in a single morning. A replacement wild-flower mixture may contain as few as 15 species.

Examples such as these give a clear indication that for maximum conservation effect per unit effort, management is preferable to attempts at habitat creation. Of course, there are circumstances when creation may be acceptable or even preferable. If, for example, one is presented with a site devoid of vegetation, there is an

opportunity to attempt to influence the eventual combination of species by judicious planting. However, any such scheme requires careful management.

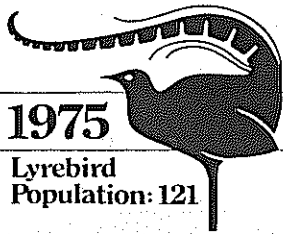
With the recent upsurge in attempts at habitat creation have come a number of absurd claims. Many scientists working in this field claim no more than the ability to create habitats with some of the characteristics of their seminatural counterparts. Would be developers, on the other hand, seem to believe that recreated habitats are no less valuable than the ancient habitats. That is rather like saying that, as we now have the technology to balance stones on top of each other, we can recreate Stonehenge and have no need of the original. The fascination of ancient woods, for example, is that each is different, a statement of society and culture. From the ditches and

banks, the tree species, the size and shape of trees and the ground flora, it is possible to read the history of a woodland: just as visiting Stonehenge gives an insight into the way of life of our ancestors. Although they may contain some of the characteristic species, recreated "ancient" woodlands will lack the historical, cultural, aesthetic and ecological interest of the real thing.

At a recent public inquiry into plans to put a road through the heart of Oxleas Wood, one of London's finest ancient woods, developers argued that any damage could be alleviated by the use of recreation technology. Similarly, a public inquiry into Shakespeare Road Sidings at Brixton was told that the habitat could be created elsewhere. Examples such as this lead us to fear that the people who make the decisions about such matters, the planning committees and the Department of the Environment's inspectors, might allow the destruction of irreplaceable parts of our heritage in exchange for bare ground scattered with a wild-flower mix or for a planting scheme of oak and hazel saplings.

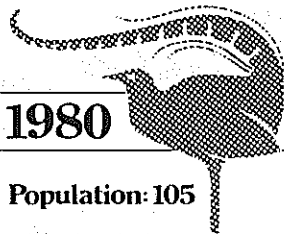
There has also been much recent enthusiasm for moving habitats. The most famous attempt involved transplanting a heath with its colony of silver-studded blue butterflies. The exercise attracted considerable publicity but eventually failed as the transferred colony did not survive, a fact which gained little media attention.

While we may condone attempts to recreate habitats or move species as a "fire-brigade" action, to rescue them from the jaws of destruction, conservationists are increasingly being asked to accept such solutions at the initial planning stage of a development. Therein lies our concern: habitat creation is no substitute for a rigorous programme of protection for seminatural habitats. It must never be allowed to justify an unwillingness to continue a tried and tested system of management. □



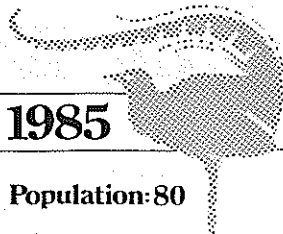
1975

Lyrebird
Population: 121



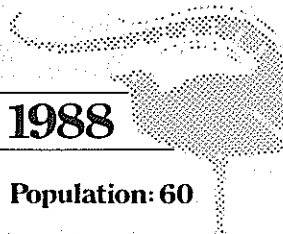
1980

Population: 105



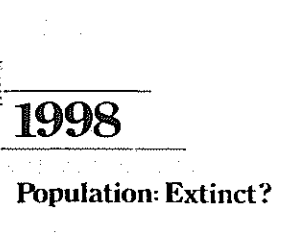
1985

Population: 80



1988

Population: 60



1998

Population: Extinct?

Sherbrooke's Wildlife — a decade too late?

By Graham Kenneday

Sherbrooke is facing the regional extinction of our highest profile fauna species, the lyrebird (*Menura novaehollandiae*). Recently released figures from the Lyrebird Survey Group indicate that a further 6 to 10 birds may have been killed, reducing the number of birds in Sherbrooke Forest to approximately 60 birds. The ratio of male to female birds has dropped from approximately 1 male to 4 females in the mid seventies, to equal numbers in 1988. Obviously with females decreasing to such an extent, breeding within a number of territories will cease. Since 1975, and at least back into the mid 60's, Sherbrooke Forest could be divided into 28 male holding territories. This is no longer the situation. Two territories on the western half of the forest have been abandoned. Opinions of Harold and Isobel Bradley, of the Lyrebird Survey Group, and John Lloyd of the Department of Conservation, Forests and Lands (CFL), are that pressures on these territories are just too great.

This year one male bird was killed on an increasingly busy road, but generally the deaths are attributed to wandering domestic cats and dogs. Shortly after the release of the figures from the 1988 Lyrebird Survey, much attention was paid to the problem through the media, and one had the feeling that at last something might happen. A month or so later, it is hard to be optimistic. The word "extinction" seemed to alarm many, but only for a short time.

The Forest is under seige from all sides. It is often described as an island in a sea of suburbia. 38,000 residents live in the Shire of Sherbrooke. Ten per cent of these live in Upper Ferntree Gully, Upwey, Tecoma, Belgrave and Kallista - on the Forest's immediate doorsteps. Every second residence has a dog, and the number will increase by an estimated 15% in the coming year. The total number of registered dogs is 6,250 at present, but because many are unregistered (34% of dogs impounded last year), the number of dogs

would total approximately 10,000. As there is no requirement for cat registration, the number of cats cannot be assessed, but is probably greater than the number of dogs.

As distinct from other areas of "suburbia", Sherbrooke grew in a predominantly haphazard fashion. In other areas dogs are enclosed in fenced properties, but in Sherbrooke upwards of 30% of properties are without any or adequate fencing. Many of Sherbrooke's domestic animals are free to roam day or night.

In 1987 a total of 626 infringement notices were issued to offending dog owners. Fines for offences have recently been increased from \$25 to \$100 for daytime infringements, and from \$100 to \$200 for nighttime infringements, with a maximum of \$500. Ironically this has made the situation worse. Whereas residents begrudgingly paid the small fines, they are now challenging them or asking leniency through the state control courts. The court upholds only 70% of the initial fines and the Shire only recovers 28%. Apparently some residents are preferring to spend a day or two in jail. Much of the By-laws Officer's time is spent in the courts.

It is easy to sympathise with concerned Shire By-laws staff; they have obviously been thrown in at the deep end, when the problem is almost out of control. In regard to the issuing of infringement notices, little or no action was being taken prior to 1986. The same criticism of inactivity is levelled at CFL by Kallista CFL staff member Kerry Regan in his research into introduced predators in Sherbrooke Forest Park (1987) where he states:

The Department of Conservation, Forests and Lands in the past appear to have lacked a firm commitment towards fauna protection in Sherbrooke Park by not providing adequate staff and finance to effectively implement and carry out control measures."

(continued on page 7)

Coming Events

SEPTEMBER

23-25 Friday - Sunday. **"Understanding the Mallee"**. Museum of Victoria lecture and Field Tour. Mildura. Contact Peter Johnstone, (03) 668 8874.

27 IFFA meeting. Dr Terry Wells from the Institute of Terrestrial Ecology, Monks Wood, Huntingdon, U.K., visiting Australia on a Churchill Fellowship, will speak on **"Flora Restoration"**.

OCTOBER

1 Saturday. **Men of the Trees planting bee**. Plantings taking place at Deep Rock, Yarra Bend Park. Melways map 2D reference D6. 9.30 a.m. to 1.30 p.m. Contact Sue Berkley (03) 898 7493.

6-7 **Field tour of weed and herbicide research trials**. A joint N.S.W. and Victorian Weed Science Society effort, this two day tour will look at trials located between Rutherglen and Wagga Wagga, with an emphasis on agriculture. Rutherglen Research Institute. Contact Andrew Leys (069) 230999.

7-9 **"The Australian environment - taking stock and looking ahead"**. Australian Conservation Foundation 1988 national conference. University of Technology, Sydney. Contact ACF NSW office, 18 Argyle Street, Sydney (02) 274083. Cost \$125/\$100. Guest speaker: David Bellamy.

15 **Spotlighting excursion; Coranderrk Reserve, Healesville**. Survey for recently released sugar gliders and other animals. Meet 5.30 p.m. at the bush hut in the Coranderrk bushland. (Enter from gate no. 1, Badger Ave.) Contact Karen Roach, Keeper, Healesville Sanctuary. (059) 625115.

19-21 **"Managing parks for recreation: advanced applications of the Recreation Opportunity Spectrum"**. Centre for Leisure and Tourism Studies workshop. Werribee Park, Melbourne. Contact CLTS, P.O. Box 222, Lindfield, NSW 2070. Cost \$300.

21 **"Australian water mite tales"**. General meeting of the Entomological Society of Victoria. Mark Harvey. 8.00 p.m. Clunies Ross House, 191 Royal Parade, Parkville. Contact Ken Walker (03) 419 5200 (B.H.)

22 Saturday. **Trivia Night with Rod Quantock**. Fun-filled, ACF fund raising night hosted by Rod Quantock. 8.00 p.m. Collinwood Education Centre. Bookings essential. Tickets: \$12, \$10. Phone Michael Fogarty, (03) 670 5229.

26 **Gippsland Field Day**. An opportunity to see and discuss weed problems and solutions in the vicinity of Warragul. Weed Science Society of Victoria. Contact Chris Knight (03) 619 2603.

30 Sunday. **Men of the Trees planting bee**. Plantings taking place at Deep Rock, Yarra Bend Park. Melways map 2D reference D6. 9.30 a.m. to 1.30 p.m. Contact Sue Berkley (03) 898 7493.

30 Sunday. **La Trobe University Wildlife Reserves working bee at Greswell Forest**. Contact George Paras or Laurie Whelan on (03) 479 2871.

NOVEMBER

10-11 **"Weed control activities in Victoria - Are resources appropriate"**. Weed Science Society of Victoria seminar. Monash University. Contact D. McLaren (personal) KTRI P.O. Box 48 Frankston, 3199.

13 Sunday. **Victorian National Parks Association annual picnic**. Serendip Wildlife Station. Contact VNPA office (03) 654 6843 (B.H.).

19 Saturday. **Spotlighting excursion; Coranderrk Reserve, Healesville**. Survey for recently released sugar gliders and other animals. Meet 5.30 p.m. at the bush hut in the Coranderrk bushland. (Enter from gate no. 1, Badger Ave.) Contact Karen Roach, Keeper, Healesville Sanctuary. (059) 625115.

27 Sunday. **La Trobe University Wildlife Reserves working bee**.

29 Tuesday. **IFFA meeting**.

JULY 1989.

"Trees are Life". Men of the Trees international conference. University of Reading, England. A programme of distinguished international speakers. Contact Mrs. E. Sandwell. M.O.T.T. Crawley Down Crawley. Sussex RH 104 HL England. Tel: (STD 0342) 712536.

Sherbrooke's Wildlife - A decade too late?

Continued from page 3

Recently the Department employed 2 part time vermin controllers. Previously this work was carried out by staff as part of their regular duties. Interestingly enough, by 1985 comparisons between predators destroyed and Lyrebird fatalities clearly indicate that vermin control measures were a success.

Shire and CFL officials are currently meeting to discuss courses of action. Any worthwhile options are few and will probably meet with unpopular responses. There have been no surveys to gauge resident response to sensitive conservation proposals (made by Regan, CFL staff member in 1986), nor any information or educational literature circulated by the Shire.

The main options are:-

1. A non-replacement buffer zone for domestic animals enforced by the Shire,
2. Owner responsibility to contain domestic animals adequately (e.g. by fencing) enforced by the Shire, and
3. Fencing whole or part of the Forest by CFL as a temporary measure until the previous options have taken effect.

Extensive research on the lyrebird population and weed invasion of Sherbrooke Forest has been carried out by the Lyrebird Survey Group and Friends of Sherbrooke Forest. Additional research however is needed on many other species, particularly the broad-toothed rat, swamp wallaby and wombat.

Sherbrooke's fauna is in its final hour. Whilst the lyrebird population is highlighted, wombats and swamp wallabies are virtually down to a handful. Discussions between Conservation, Forests and Lands and the Sherbrooke Shire must, in the immediate future, provide the solutions.

p.s. A survey is currently being taken by Friends of Sherbrooke as the the concerns of Shire residents regarding wandering domestic cats and dogs. Names and addresses will be used to pressure CFL to take action within the forest, the State Government to implement the Companion Animals Act and to give greater support in the courts to council, and the Shire to enforce adequate means to contain domestic animals. •

Wildlife around South Yarra

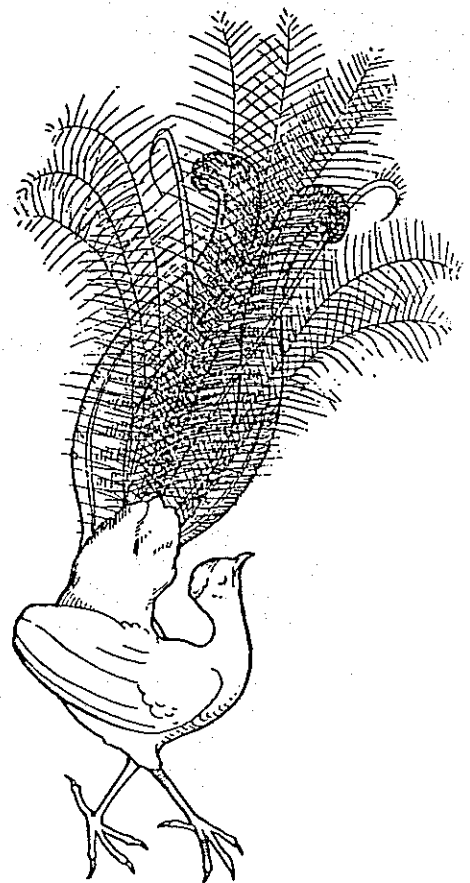
By Peter Tucker*

Surprising amounts of wildlife can be found in the inner city suburb of South Yarra. Of interest at the moment is a flock of perhaps twenty sulphur-crested cockatoos which have been seen and certainly heard around the area. They seem to be roosting in the Royal Botanic Gardens on one of the islands in the main lake. Cormorants both pied and black are also roosting around the main lake with a population in excess of 100 birds.

Fruit bats are still hanging out in the fern gully of the Gardens; there seems to be about 30 to 40 in the group.

Hérons and egrets are still to be seen by bike-path travellers, along with black duck and welcome swallows feeding on insects above the water.

A kookaburra was seen and has been heard recently as well. Masked lapwings have been seen feeding on the grounds of Melbourne High School. •



FLORA RESTORATION

A talk by Dr Terry Wells, a highly respected ecologist who works on the ecology of rare species (especially orchids) and flora restoration and management, from the Institute of Terrestrial Ecology, Monks Wood, Huntington, U.K., here on a Churchill Fellowship.

Tuesday September 27th.

8 p.m.

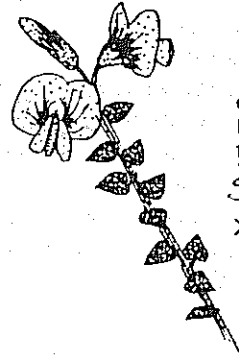
at the Environment Centre, first floor, Ross House, 247 Flinders Lane, Melbourne (between Swanston and Elizabeth Streets). To get in, press the doorbell on the right hand side of the door.

Organized by the
**Indigenous Flora and Fauna
Association**

phone (03) 489 4191.

Memberships

IFFA membership costs \$20 for families and groups, or \$10 for individuals. Memberships should be sent to the Treasurer, Dale Tonkinson, C/6 Botany Department, La Trobe University, Bundoora 3083.



GOLDEN
BUSH-PEA
*Pultanea
gunnii*

X1

CONSULTANTS

REGISTRATION OF INTEREST

Consultants with experience in biological and environmental sciences are invited to register with the Western Region Commission, their interest to undertake investigations into aspects of natural resource conservation within the Region.

Consultants would be expected to provide information to the Commission on botanical and zoological species, associations and communities and the abiotic components of nominated sites. This should be related in terms of the conservation status and conservation management requirements. It should be noted that management plans would, in most cases, be implemented by local government personnel. Consultants should, therefore, be capable of interpreting their data into practical management prescriptions.

Registrations of interest can be lodged with The Ecologist, Western Region Commission, Private Bag 10, West Footscray 3012, and should include copies of recent reports, business prospectus and staff resume.

