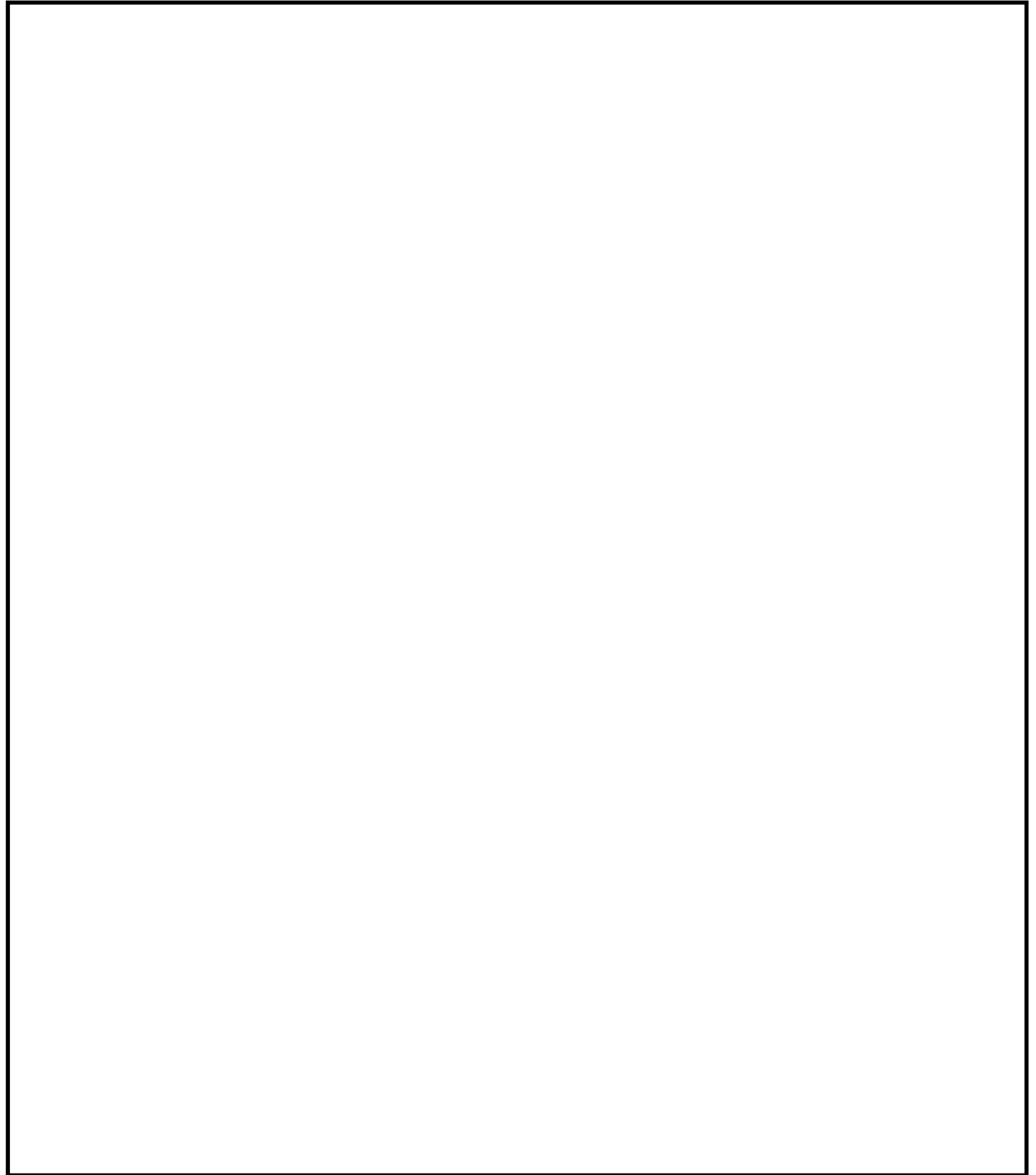


INDIGENOTES



Urban Tree Decline: Cryptic Loss

By John Reid

The aim of this article is to put the *cryptic loss* (explained below) of remnant indigenous trees in the urban environment on the agenda for discussion. My comments derive mainly from observations around Melbourne, particularly in the eastern suburbs. This article is intended to be a starting point, to ask questions and stimulate discussion. I am unaware of this particular aspect of urban tree decline being articulated elsewhere but have not yet taken the time to search the relevant literature. If people are already talking and writing about it, hopefully any existing ideas will come to light so they can be considered along with any new ones that are stimulated.

Tree loss is only part of the on-going, incremental loss of remnant indigenous vegetation in urban areas. The concentration on trees in this article is not intended to imply that trees are more important than other indigenous plants. Trees are emphasised here because in some urban areas they are the only remnants of original bushland vegetation and their future survival raises some particular questions and challenges.

What is the typical perception of how original bushland trees (in Melbourne, mainly eucalypts) are lost? Probably the most common perception is that trees disappear from the urban scene when they are cut down to create spaces for houses, schools, shops, roads, etc. Clearly, trees may have already disappeared from many areas prior to urban development when bushland was cleared for agriculture. For the sake of pinning a label on it, I will refer to tree loss by clearing as 'obvious loss'.

I want to make a distinction between obvious loss and a kind of tree decline I will call 'cryptic loss' because the latter is much less noticed and as a consequence, seldom (if ever) considered in environmental planning and management.

In parts of Melbourne, e.g. eastern suburbs such as Heathmont, Ringwood and Warrandyte, indigenous trees still survive in areas that have undergone intensive

urban development. Good numbers still occur in private gardens, school grounds, on nature strips, road verges, etc. Usually they survive in such places without indigenous middle and ground strata vegetation. This has mostly been replaced by mowed grass or introduced garden plants.

Individual trees on such sites will eventually die, perhaps because of old age but often the process of senescence and death will be accelerated by urban disturbance, e.g. mowing, weed invasion and competition by garden plants. Sometimes trees are felled because they are thought to be a danger to human life and property. However, the main reason why the number of indigenous trees will diminish in such places is their inability to reproduce, to recruit seedlings into the population to replace them when they die. This I will call 'cryptic loss' because it is a much more subtle way of killing trees than taking to them with an axe or chainsaw.

Cryptic loss occurs because disturbance factors such as mowing and smothering by weeds prevent germination of seeds and survival of seedlings. Also, remnant indigenous trees on such sites are incorporated into formal environments where they are seen as a static part of the landscape. They are not expected to reproduce just as other garden plants are not expected to. Seedling recruitment is not a common aim for a home gardener or an agency responsible for managing a formal park or road verge. When garden plants die, or when the gardener no longer wants them, they are replaced by planting. In healthy bushland areas, remnant trees replace themselves; in gardens and similar sites this is usually not possible..

In Heathmont, I have recently begun to look closely at remnant indigenous trees in formal garden situations, with the aim of eventually compiling an inventory of distribution, numbers, species, general health and prospects for on-site regeneration. One residential street surveyed has a corridor of indigenous trees

along it and presumably plays an important role in linking an otherwise isolated bushland remnant at one end with a vegetated creek corridor at the other. In a 230 metre long section on one side of the street, I counted remnant indigenous trees occurring in 13 adjoining front gardens and their nature strips and quickly checked tree health and signs of on-site regeneration.

Sixty-four remnant trees of five species were recorded; Narrow-leaved Peppermint *Eucalyptus radiata* (34), Silver-leaved Stringybark *E. cephalocarpa* (26), Black She-oak *Allocasuarina littoralis* (2) and one each of Blackwood *Acacia melanoxylon* and Cherry Ballart *Exocarpos cupressiformis*. Nineteen trees (29% of the total) showed obvious signs of decline. Sixteen were at least partly smothered by rampant climbers: 7 by Ivy *Hedera helix*, 3 by both Ivy and Japanese Honeysuckle *Lonicera japonica* and 6 by the indigenous parasitic plant Coarse Dodder-laurel *Cassytha melantha*. Three other trees had conspicuous crown dieback of uncertain cause. No signs of on-site regeneration were observed. It is not possible to state with certainty that no natural regeneration has occurred in these gardens since residential development. However, the dominance of introduced plants (commonly in dense garden beds, even on some nature strips) and the prevalence of mowed grass suggest that natural seed germination and/or seedling survival would now be rare.

Two other examples of the same general scenario are as follows: One local primary school has over one hundred remnant indigenous trees of various sizes in the schoolground. The spaces between trees are mowed. No evidence of on-site regeneration was noted. Many indigenous eucalypts remain on the median strip along Mt. Dandenong Road in Ringwood. The spaces between them are maintained as mowed grass. To some extent remnant trees have been supplemented by planted trees of various origins. Again, on-site regeneration is unlikely.

There are many advantages of retaining remnant indigenous trees in the urban environment, both for the present and in perpetuity. Ecological, cultural and aesthetic benefits come readily to mind. Remnant trees maintain a part of the natural ecosystems/vegetation communities/habitats of a particular area. They maintain a link with the past, a sense of place and a

part of the natural heritage of a particular area. Aesthetically, they provide some visual cohesion, even if they survive without the appropriate middle and ground strata species. Compare a street with a good spread of remnant trees with one bordered by non-cohesive, mixed, introduced plantings.

If these values are important, there needs to be a strategic approach to maintaining them or they will continue to decline incrementally and eventually be lost forever. If natural on-site regeneration is the most desirable form of revegetation (and is it?), we will need to articulate very clearly planning and management strategies to enable this to happen.

Editor's Comment:

I reckon this problem of "cryptic tree loss" is incredibly important to discuss because the lack of future vision that is the root of the problem is deeply entrenched in our culture.

I have noticed this same problem superbly illustrated around many rural areas in particular for many years across two continents. There is often one lone, large beautiful tree providing shade and beauty in someone's garden and people clearly value such trees a great deal. But the owners certainly don't think ahead, the last big tree in a garden will eventually die; wouldn't it be nice if there were trees growing to replace the older ones that will inevitably die over time?

The issue needs to be addressed by drastic changes in policy and planning. Imagining a long-term vision of what gardens or bushland should look like in 50 to 100 years time is critical to addressing the issue. We must plant trees, or allow them to regenerate, over time so that our grandchildren will enjoy big old trees when they grow up.

Lincoln Kern

Readers! If you wish to contribute more thoughts on this subject through letters or please write to John Reid c/o Indigenotes.

Speaker Report:

The Significance of Riparian Vegetation for Aquatic Fauna

Edited highlights from notes provided by Steve Sadler, a fish biologist with the Arthur Rylah Institute from a talk he gave to the April IFFA meeting..

The steady decline in both quality and quantity of riparian vegetation is undoubtedly the major cause of the decline in the diversity of aquatic fauna throughout Victoria.

Most people are aware of the positive benefits which riparian vegetation has on the physical well being of streams and rivers. These benefits include the obvious effects which roots have on the physical binding of stream banks and stabilisation in the face of continual water action, particularly in high flow events, as well as the stabilisation of banks in relation to the effects of unrestricted stock access.

What most people are not aware of is the specific effects which this vegetation loss has on the diverse range of indigenous aquatic fauna. These effects can be grouped into three main categories.

1: Effect on instream habitat

2: Effect on water quality

3: Effect on food supply

Instream habitat

The diversity of aquatic fauna present in Victorian streams is directly dependant upon the diversity of instream habitat which is available to them. For example, of the 37 species of native freshwater fish whose spawning behavior is known, 6 species require a gravel substrate, eight spawn underneath rocks and 3 require hollow logs on which they attach their adhesive eggs. A further 10 species spawn in or on aquatic vegetation. The effects of riparian vegetation loss is reflected in the loss of a large proportion of these required sites, particularly the gravel, rock and hollow log sites which may be completely covered by high

levels of silt or sand which enter the waters through bank erosion and the erosion processes occurring in the catchment. Even if some sites are available for egg attachment, the adhesive nature of these eggs makes them particularly susceptible to smothering by silt which adheres to the egg wall, restricting gas exchange and often causing high levels of mortality.

The direct loss of trees from stream banks has an obvious effect on the amount of woody debris and logs which enter the stream. Fish such as the Murray cod, Trout cod and Freshwater blackfish are particularly reliant upon hollow logs in which they lay their adhesive eggs. Loss of these logs therefore represents a loss of spawning sites for these species. The log jams and woody debris also form important habitat for these species which are territorial by nature. Trials conducted by John Koehn in 1987 on two-spined blackfish in the Ovens River showed a 900% increase in fish numbers over a 3 year period at sites in which habitat had been artificially increased.

Water Quality

The buffering effects of riparian vegetation is well known. Riparian zones act as a filter for a wide variety of water borne pollutants. Suspended sediments, resulting from natural runoff, inappropriate forestry or roading practices are filtered out before the bulk enter the stream. Heavy silt loads may cause gill tissues to become coated with fine particles, resulting in respiratory difficulties. There is also a large amount of documented evidence that large increases in suspended sediment levels may cause behavioural changes in spawning fish, decrease larval growth and affect development rate and survival of larvae.

Water quality may also be adversely affected by a significant increase in water temperature. Overhanging riparian vegetation, particularly larger trees and shrubs, reduces the length of time to which the stream is subjected to direct sunlight, therefore maintaining a lower water temperature. Lower water temperatures are able to maintain higher oxygen concentrations

which are an important factor for freshwater fish over the summer period. Lower water temperatures are also less likely to support algal blooms which are becoming more frequent, mainly as a result of the nutrification of waters through stock access and agricultural runoff.

Food Supply

Native riparian vegetation provides a low but constant supply of organic nutrients into the water column through the loss of leaves and larger timber debris. This supply of nutrients provides the food source for the vast majority of aquatic macroinvertebrates which inhabit stream ecosystems. These macroinvertebrates provide the majority of food for virtually every species of freshwater fish throughout Victoria. There is therefore an obvious relationship between the amount of riparian vegetation (and subsequent organic matter input into the water) and the amount of available food for the fish fauna. This availability is exacerbated by increases in siltation which fill the interstices of rock and cobble substrate, thus reducing the amount of available habitat for aquatic macroinvertebrates.

Other changes to river and stream systems since European settlement often carried out as river improvement works have included the removal of overhanging limbs from larger trees along stream banks and direct snag removal both for flood mitigation purposes.

A range of measures will need to be undertaken to improve the situation. These include liaison with river management authorities to reduce the impact of river improvement works. Education of the general public and private landholders as regards the processes which are degrading riparian habitat and to the benefits which can accrue through improved management of stream and riparian zones.

Box-Ironbark News

Land Conservation Act 1970

Notice of Investigation

Box-Ironbark Forest Woodland Areas in Northern Victoria

The Land Conservation Council is required by the Victorian Government to carry out an investigation of Box-Ironbark Forest and Woodland areas in northern Victoria to:

- identify and evaluate their extent, condition, values and uses
- assess the capability of these areas to provide for a range of uses at sustainable levels
- make recommendations on the balanced uses of these areas on public lands, including protection of their significant environmental values by June 30 1998

The investigation area covers the Box-Ironbark Forests and Woodlands on public land within the boundaries shown on the map below, stretching from the Grampians in the west to Wodonga in the north-east.

The investigation will follow the usual LCC process and as such the Council will have regard to the social and economic implications relevant to its recommendations.

The first stage of the investigation will be the publication of the resources report in 1997. Notices in the Government Gazette and in newspapers will indicate when copies of the resources report are available and where they may be inspected or obtained. Upon publication of the report, the Council will invite submissions for consideration when proposed recommendations are being prepared for public land use in the area.

Should you wish to register your interest, provide information or have any enquiries concerning this investigation please contact the Secretary, Land Conservation Council, 1st floor, 477 Collins St., Melbourne 3000. Ph. (03) 9628 5142, country callers 1800 134 803.

Geoff Blackman, Secretary

Source: **The Age 24 April 1996**

Chiltern National Park

In a landmark win for the VNPA's Box-Ironbark campaign, both the Coalition and Labor announced that they would upgrade Chiltern Park to National Park status, preventing all future threats from mining and forestry. VNPA have applauded

these undertakings, while pointing out that the name proposed by the Coalition - "the Box-Ironbark National Park" - is inappropriate, as it fails to recognise the history of the area and the views of local groups like the Friends of Chiltern, who want the name "Chiltern" retained.

In our "Agenda for Box-Ironbark Conservation", produced during the State election campaign and supported by the Box-Ironbark Bush Alliance (BIBA) groups, we pointed out that Chiltern should not be the last of Victoria's Box-Ironbark parks as there are many forests worthy of park status. Nevertheless, this is a great first step towards "on the ground" results in Box-Ironbark conservation.

Helping the Box-Ironbark Country

Right now throughout the Box-Ironbark country precious bush is being bulldozed for mining. At Maryborough, Bendigo, Heathcote and Killawarra in the north-east the threat of mining still hangs over the forest. All through the Box-Ironbark country intensive logging and firewood cutting continues. Not surprisingly the wildlife is continuing to decline and if wildlife decline continues many species will disappear from the Box-Ironbark country in our lifetime.

That's the bad news...

The good news is that the public campaign to protect this wonderful country is now going well. Due in large part to the work of campaigner Charlie Sherwin and others at VNPA, there is now change afoot. For four years Charlie and others have been doggedly pursuing this issue - by raising public awareness through the media and public talks and by holding discussions with the many local conservation groups in the region that have been fighting to protect their local bush. Now this work is paying off. The State Government will soon review land-use in the region. Local and state groups working on Box-Ironbark conservation have joined the Box-Ironbark Bush Alliance.

However, we cannot be complacent. The reality is that there are still industries that will fight to maintain their damaging practices on public land. We need your help to ensure that the current momentum leads to the establishment of a comprehensive national park system in the Box-Ironbark country.

Funds are needed urgently to support VNPA's Box-Ironbark campaigner Charlie Sherwin because Charlie's funding from other sources will soon run out. The VNPA urgently needs your support to provide a basic wage so that Charlie doesn't need to get a job elsewhere just to survive.

You can donate tax-deductible funds to the VNPA at 10 Parliament Place, Melbourne to help support Charlie so that he continue the campaign. Please keep writing letters to newspapers and politicians as well, spread the word in the community or donate time to the VNPA (03 9650 8286) or other members of the Box-Ironbark Bush Alliance.

Action Pages: Amcor plans for South Gippsland

South Gippsland has recently been the location of a quiet but determined protest to a recent application by Amcor to clear areas of native bushland. The plan involves 1,955 hectares of bush, at around 13 locations in the Strezlecki Ranges and nearby hills. Amcor owns/leases 85,000 hectares of land in Gippsland. Eucalypt plantations cover 13,000 hectares at present but the company plans to increase this to 30,000 hectares over the next ten years. The particular areas involved in the application have been cut over previously, and Amcor plans to convert these areas to plantation, using Blue Gum for its fast growth potential.

The 1955 Hectares has been endorsed by the Department of Conservation and Natural Resources to "not be likely to contain significant flora or fauna" and therefore "suitable for conversion to plantation by Amcor", after an average of less than ten minutes inspection of each area. (Friends of the Gippsland Bush Newsletter Feb/Mar 96).

Since news of the proposal reached the local community, a group has been formed, Friends of the Gippsland Bush. At present, Environment Victoria is providing assistance, and residents are representing different localities.

Obvious concerns are that wildlife cannot follow the

plan that Amcor has produced, and that surrounding bush cannot provide adequate shelter and habitat. Reports of increased wildlife movement near sites presently being cleared are a concern, particularly when they appear lost or distressed. Other issues are the clearing of streamsides and the problem of silting, the permanent loss of mature forest habitat and the existence of significant areas of land already cleared that could be used.

The matter that concerns locals most is that the Administrative Appeals Tribunal has not been involved in the application process. The areas covered in the plan span five different shires. It was requested by four of the shires that the matter be dealt with by the State Minister for Planning who shall appoint a committee. Any recommendations made are only that, with the Minister making the final decision. At present IFFA understands that the Panel has yet to be appointed.

Wellington Shire received 70 objections, as well as petitions. The La Trobe Shire had received 11 written objections to the application by mid May. In addition, three petitions totaling almost 500 signatures were lodged. Commenting on this, La Trobe Shire's development approval officer said, "we usually only receive this number of objections to applications for brothels".

Perhaps another view is that "its allowed to be done but you just don't do it". As things stand, it is likely that approval will be granted unless pressure is continued. At a recent Bush Picnic day in Jeeralang North, at which over two hundred people attended focusing on the Amcor application, zoologist Barry Traill said of the company, "they are very worried, extremely worried" in speaking of the implications for wildlife.

Those interested in the issue are invited to write to:

Stan Wallis, CEO, AMCOR, Southgate, 40 City Rd, South Melbourne, 3205.

John Mitchell, C.E.O., Latrobe Shire offices, Kay St, Traralgon, 3844.

The Hon R. McClellan. State Minister for Planning, Parliament House, Melbourne, 3001.
The Hon Jeff Kennet, Premier of Victoria, Parliament House, Melbourne, 3001.
and local Members of State Government. (for names,

addresses etc. call Information Victoria on 1800 136 762).

Friends of the Gippsland Bush can be contacted through John Ernst (051) 691 601 or Nancy Phillips (051) 942 262

Michael Kenny, Monash Gippsland, West 53/3, Churchill, 3842. Tel (051) 220 153.

IFFA urges members to write to the above-named voicing your concerns regarding this untenable loss of valuable remnant habitat in such a fragmented landscape as South Gippsland. Surely if we want our paper and read it too there is suitable cleared land for such forestry proposals.

State Gov't Backflip on Point Lillias

According to a recent article in the Sunday Age (12/5) the "Victorian Department of Natural Resources and Environment appears to have performed a backflip over the siting of a petrochemical storage plant at Pt. Lillias." In 1991 the Department said "Concentrating on sites of low natural value and avoiding options of high environmental value (such as Pt. Wilson, Kirk Point and Pt. Lillias) is preferred by DCE..." But "in last last month's submission the department appeared to accept the inevitability of the Pt. Lillias project" and "in dealing with the problem of Pt. Lillias falling within an international wetland treaty zone, the department urged that the site be excised from the treaty and replacement habitat areas be found elsewhere...By removing it from the treaty area Victoria and Australia could "therefore continue to meet their international obligations for the protection of migratory water birds should the Pt. Lillias project proceed"."

What hypocrisy! The most important question is if there is already internationally significant wetlands around to replace habitat at Pt. Lillias why isn't it listed already? And how do you get the birds to move on from the habitat they have used for many, many years. Please write the state politicians listed above and the Prime Minister and Federal Environment Minister Robert Hill in protest of this disregard for international treaty obligations and ask them all to reject the development of Pt. Lillias.

Coming events:

For IFFA events see back cover

Conferences/Workshops/Talks

Wed 12 June. Platypus Lectures. 8pm. Part of a series of talks organised by the Australian Platypus Conservancy on platypus ecology and conservation. Hosted by the Ringwood Field Naturalists in Dickson Crescent, North Ringwood. Contact (03) 9716 1626 for further information.

Mon 17 June 8pm. Boronias - an illustrated talk presented by Marco Duretto to the Society for Growing Australian Plants, Victoria. Venue is the Conference Room, AstronomerÆs Residence, Royal Botanic Gardens, Birdwood Avenue, South Yarra. Contact Enid Bowman (03) 9882 5297.

Sat 24 August 1996. Sustainable Design & the Built Environment Conference. To be held at RMIT, Melbourne. Contact Sam Reinholdt on (03) 9660 2362.

Landcare for Educators Vacation Course, Creswick.

Course 2: 30 Sep - 4 Oct 1996. A course designed for teachers, community educators and anyone with an interest in landcare education. Presented by the Department of Conservation & Natural Resources & The University of Melbourne - School of Forestry Creswick Ltd. For further enquiries contact Trish Kevin & Geoff Park, DCNR - Creswick Nursery & Landcare Centre. Tel 053 452 200 or Fax 053 452 795.

April 25, Thur "Thornbills" 8pm. A Bird Observers Club Study meeting. The guest speaker is Jill Plowright. You will need to book early. To be held in the BOCA library at the rear of 183 Springvale Rd, Nunawading. Supper is provided. Cost is \$5 members or \$10 non-members. For bookings contact (03) 9877 5342.

September 30 - October 3 1996 "Australian Weeds Conference". The Weed Science Society of Victoria Inc., in conjunction with the Council of Australian Weed Science Societies, will be hosting the eleventh of these triennial conferences at Melbourne University. The conference will focus on the significant land use systems - cropping pasture, public lands, forest rangelands and urban areas. For further information contact Chris Knight, Promotions officer, Australian Weeds Conference, PO Box 987, Frankston, Vic 3199. Tel (03) 9619 2603, Fax (03) 9619 1756.

27 - 31 October 1996 13th Conference - Fire & Forest Meteorology - "International Perspectives on Landscape Fires". These series of conferences have been open, research meetings organised by the American Meteorology Society and the Society of American Foresters. This 13th conference will be the first one to be held outside of North America and is to be held at The Cumberland Resort Lorne, Vic Australia. Topic areas will include: fire ecology, fire management, fire disaster planning, media issues, smoke, meteorology/climatology, fire physics,

modelling, and urban interface issues. A second announcement will be distributed by the organisers mid year calling for papers and registration forms. If interested in finding out more contact IAWF, PO Box 328, Fairfield, Washington, USA 99012.

Thur 28 - Fri 29 November 1996 Sustainability & Local Environments - Myths, models & milestones. Environs Australia, the local government environment network, proudly presents its second National Conference to be held in Sydney. Explore the cutting edge of sustainability practice in local communities. Contribute to the development of achievable goals and solutions for the 21st Century. This conference follows on from the successful 1994 Conference - Local Government Responds to Rio. This conference will be about the people who are currently working in the field and making substantial, real changes, and who are able to share their practical experience, successes and failures. For more information contact Peter Lyon, Executive Officer, Environs Australia, Ph (03) 9654 1322, fax (03) 9654 1625 or E-mail mcavic@peg.apc.org

Excursions and Field Trips

Sun 16 June. Mullum Mullum Creek Tour, organised by the Australian Platypus Conservancy. Bookings close 7 June. Contact APC on (03) 9716 1626.

Sun 14 July Tour of the Organ Pipes National Park. Organised by the Friends of Merri Creek. The Park Ranger will show us the Park's indigenous seed nursery and we can gain inspiration from an audio-visual which shows the incredible revegetation that has occurred in the last few years. Meet at the Merri Creek Mgt Committee office, in Northcote, at 9.50 am for either a bus or car pooling, leaving at 10 am for the information centre at the Organ pipes National Park, opposite Calder Raceway (melway 3 D4). Contact (03) 9480 5492 for further details (including MCMC office address).

Restoration Activities

Sun 2 June FO Merri Creek. Planting project at the BT Connor Reserve in Fawkner. Contact (03) 9480 5492 for meeting place and starting time.

Sun 2 June FO Evans Street Grassland. 9.30 am - 12 noon. Working Bee at Evans Street Grasslands (Evans Street, Sunbury). Please bring mattocks.

Sun 2 June FO Buckley Falls, Geelong. Planting of slopes above the Devils Pool lookout and upstream of the falls. Access from the Buckley Falls Lookout carpark. Contact Tony Woolford 052 43 6340.

Wed 12 June FO Sherbrooke Forest Inc. Project morning 9.30 am. Will be working at Welch Plateau No. 1 or 2 site. Meet at Nation Road entrance (Melways 75 K10). Ivy and cestrum. Bring a mattock if cestrum is your preference. Contact Vivien Freshwater (03) 9754 3093.

Sun 16 June Litter Clean up along the Merri Creek. Organised by the Friends of Merri Creek. Will be cleaning along Rennie and Fyffe Streets in

Thornbury. Contact Paul on (03) 9489 5062 for meeting place and starting time.

Sat 22 June FO Sherbrooke Forest Inc. Project afternoon 1pm. Will be working on Coles Ridge site. Meet at South end of Grant's Picnic Ground, at the Coles Ridge barrier gate (Melways 75 K4). Mostly Ivy. Contact Vivien Freshwater (03) 9754 3093.

Sat 22 June FO Werribee Gorge & Long Forest Mallee Inc. Project Day at Werribee Gorge - tree planting. Contact Janet Leversha (053) 674 229.

Sat 29 Sat. FO Koolunga. Working Bee 10 am - 12 noon. Tasks to be performed during these working bees will be weeding and replanting depending on the progress of the creek works and the availability of plant stock. For further details contact Gordon Carter on (03) 9762 2117.

Regular Restoration Activities

1st Saturday of the month:

Greenlink Box Hill - also every Monday and Tuesday at 10am. Minette Russell-Young (03) 9898 1364.

FO Gellibrand Hill State Park - 9.45am. Mark Corr (03) 95572783

Loughies Bushland - Nth Ringwood 9.30 am. Meet cnr Kubis & Werac Drv. Carole Clarke (03) 9870 8126.

1st Sunday of the month:

FO Evans Street Grasslands - 9.30am. Helen Graesser (03) 9744 4097 (Mel 113 B10)

FO Fourth Hill - 10 am - 12 noon. Meeting place varies. Dave V. Bockel (03) 9844 2659.

Heathmont Bushlinks - works in 5 different areas 10 am - 1 pm. Roger Lord (03) 9870 5262.

2nd Saturday of the month:

Wuurundjeri Garden - 10am. Dorothy Sutherland (03) 9818 4706 (Mel 45 A11)

FO Timber Reserve - 2 - 3pm. Brian Phefley (03) 9844 2659 (Mel 35 G3)

Tereddan Drive Reserve, Kilsythe - in July working bee is the 3rd St. Graham Lorimer (03) 9728 5841.

2nd Sunday of the month:

Greenlink Camberwell - 3pm. Diana Burgess (03) 9809 2092 (Mel 60 E7)

Friends of the Yarra - 10am. Also Wednesdays. Judy Rutherford (03) 9347 2252 (Mel 2D D7)

Gad's Gang at Stony Creek - Mark Gardner (03) 9844 3799 (Mel 23 C9)

FO the Hundred Steps - Keith Vagg (03) 844 1457.

FO the Common - Kim Dowcra (03) 9876 3807, Deb Parker (03) 9846 2214.

3rd Saturday of the month:

FO Bradshaw Park - 10am (9am in Nov & Dec). Dave Bainbridge (03) 9580 5992 (Mel 87 E10)

3rd Sunday of the month:

Men of the Trees - 10am. Minette Russell-Young (03) 9898 1364 (Mel 2D D6)

Meander (Menzies Creek & Emerald Tourist track) - 10am. Kate Forster (059) 685 828 (Mel 125 F12)

Brunswick Tree Group - 10am. Eric Ward (03) 9388 2123

FO One Tree Hill - Diane Silveri (03) 9710 1331

Osborne Peninsula Landcare - Margaret Dimech (03) 9844 3812 (Mel 23 J9)

FO Pigeon Bank Creek - 2pm. Linda Bromilow (03) 9844 2541 (Mel 23 J6)

FO Tindals Wildflower Reserve - 11am. Kim Docwra (03) 9876 3807 (Mel 35 A3)

Last Saturday of the month:

FO Organ Pipes National Park - 10am. Carl Rayner (03) 9331 2810

FO Sherbrooke Forest - 2pm (1pm in Winter). Vivien Freshwater (03) 9754 3093

FO Valley Reserve - 1:30 to 4:00 pm. Alf Salkin (03) 98026213

Last Sunday of the month:

Friends of Royal Park West - 10am. Mick Arundell (03) 9380 8075 (Mel 29 C12)

JB Hubbard Reserve - Nth Ringwood. Carole Clarke (03) 98708126.

FO the Helmeted Honeyeater - 11am. Nursery activities - Healesville. Jeff Dickinson (03) 9568 2768.

Week day activities:

FO the Koornong - first Wednesday of the month at 10am. Cathy Willis (03) 9844 1841.

FO Sherbrooke Forest - 2nd Wednesdays, 9.30 am. Vivien Freshwater (03) 9754 3093.

Fred Rogers Reserve - Heathmont 12 am - 2 pm. Gwen Elliot (03) 9879 1427

FO the Koalas inc - Koala counts are held at the Koala Conservation Centre, Phillip Island, every 2nd Tuesday of the month. Contact (059) 522 407.

FO Stane Brae - second Wednesdays 10am. Ron Taylor (03) 9844 4285.

FO Warandyte State Park nursery activities - every Thursdays at 10am. Afternoon activities: walk, flora fauna park skills. Margaret Burke (03) 9844 1060

For Australian Trust for Conservation Volunteers activities, contact ATCV: (053) 33 1483

A large range of activities such as bushwalks and "Friends" activities are published by the Victorian National Parks Association in their newsletter. For details contact VNPA on (03) 650 8296.

Visitors/participants are welcome to all events listed in Indigenotes.

Thank you to all the people who contact us regarding on-coming events their groups are organising. If you wish to have your events covered, or you can see corrections that need attention, please contact Elissa Kerassitis AH on (03) 379 1116 or through

Snippets:

Landcare News from Clarence, Tasmania

Phil Watson, an IFFA member and employee of the Clarence City Council has sent us a description of his council's good work in landcare/coastcare to help indicate Tassie exists and is active in its landcare activities. Recently they completed a Natural Assets Inventory and a Rare Species mapping project for all the Clarence region. They also have a strategic plan called the "Natural Areas Management Working-Plan for Landcare and Coastcare groups. It is described as follows:

The City of Clarence has a strong commitment to Natural Areas Management and has continued to support and nurture Landcare/Coastcare groups. The Council is recognised as a leader in Tasmania in its approach to managing natural areas. It become apparent that a strong cohesive approach to future management issues needed to be undertaken. As a result it was decided to develop a Landcare Strategic Framework for Natural areas for such issues.

This project is an innovative approach to Council's dealings with community based groups and is seen by others, such as the NLP and the newly formed Tasmanian Landcare Association as a catalyst to promote regional landcare networking using a strategic and consultation approach in partnership with other land management agencies. Funding for the project was provided by Council supplemented by a National Landcare Program Grant sponsored by BP Australia.

Presently there is a network of 22 Landcare/Coastcare groups which assist in the management of bushland and coastal areas. The strong partnership between Council and these groups is supported by substantive resource allocated on an annual basis. The type of assistance given ranges from technical advice both in the planning and management of each group's area to the supply of plants, fencing material, etc. to carry out actual 'coal face' activities.

Extinct Species

Re-discovered in the Basin

The Dandenong Freshwater Amphipod (original name?) was last recorded in 1911 from Dandenong Creek in Bayswater. A recent survey by department of Conservation and Natural Resources Ecology Branch has located this small invertebrate living in the upper reaches of Dobsons Creek at the Basin-Olinda Road, The Basin.

The Dandenong Freshwater Amphipod is listed under the Flora and Fauna Guarantee and its status is recorded as extinct (Action Statement No. 3 1991). This rediscovery is most likely a first for fauna in the Melbourne area. Most species that disappear for 85 years disappear forever! It was additionally located in the upper reaches of the Olinda, Sherbrooke and Ferny Creeks - all small creek systems draining from the Dandenong Ranges.

The Dandenong Freshwater Amphipod is not a cute and cuddly creature. It is a small crustacean, yabbie like in appearance between 10-16 mm in length. In a biodiversity sense its continued existence is no less important than our other larger wildlife species. With an apparent preference for undisturbed streamside vegetation, where decaying leaves and canopy shading exists, its distribution has been localised to the upper reaches of the creeks where it previously occurred.

The original type locality of this species Dandenong Creek, Bayswater. This creek has been heavily modified and now functions as an urban stormwater drain. The species no longer occurs there. The Manna Gums and Silver Wattle are gone from this location. Where Victorian Christmas Bush, Hazel Pomaderris and Rough Tree Ferns once lined the meandering creek. Piping and concrete channeling have eliminated the native vegetation, straightened the creek and destroyed much of the wildlife habitat that previously existed.

A revised Action Statement will be written now this species has been re-discovered. Safeguards needed to protect it will be developed and these may include controls on land clearance along its habitat zone.

Just for once, extinction appears not to be forever!

References:

DCNR Flora and Fauna Guarantee Action Statement No. 3

Freshwater Ecology Branch, Flora and Fauna Division - Julia Reed, Jan. 1991.

Rowena Myers DCNR Port Phillip Region - Personal Communication Feb. 1996.

Source: Kestrel (Newsletter of the Knox Environment Society Inc.)

Mt. Piper Update or More News on Other Rare

Invertebrates

Those Broadford Environmental Action Movement (BEAM) members who maintain an ongoing interest in Mt. Piper and its diverse and complex insect community are probably aware of the work carried out by La Trobe University biologist Dr. Tim New and his team. Indeed back in October 1993 Tim was a guest at a BEAM Information Night and outlined much of the work he had undertaken to investigate the ecology of the endangered Large and Small ant-blue butterflies. Both butterflies form a symbiotic relationship with ants, laying their eggs on trees close to the nest of the particular ant species with which they interact. The ants collect the eggs and carry them back to their nests where the caterpillars are raised within the nest, feeding upon the the ant larvae!

Back in October 1993 despite many searches around Mt. Piper, the two ant species associated with these butterflies had not been located. An important step in ensuring the ongoing survival of the butterflies - identifying the location of the associated ant species and then protecting these sites - was seen as critical.

Recently I visited Mt. Piper with Tim New, Ann Selinek and Matt White to see what has been happening. Some twelve months ago the particular ant species which raises the young of the Small ant-blue butterfly was located on private land on the eastern slopes of Mt. Piper. The owners generously agreed to sell the land to the Department of Conservation and Natural Resources so that appropriate conservation measures could be undertaken.

Tim New and his team have subsequently installed a number of timber "brood chambers" on the site. The ants have moved into these and carried ant-blue eggs into them. The "brood chambers" can be opened so that researchers are able to visually monitor what is happening within the nest. During our visit Tim opened one for us and there inside were a number of the ant-blue caterpillars (probably the only time I will ever see more than one of these rare insects together!). Unfortunately the story of the Large ant-blue is not as positive. Back in 1993 only one adult had been observed on the summit of Mt. Piper and to date the ant colonies which raise the caterpillars of this species have not been located. Hopefully with more research this may not be too far away.

Further cause for optimism about the future of Mt. Piper and its associated butterfly community came from Matt White (DCNR Flora and Fauna Guarantee Officer). The Department looks set to change the status of Mt. Piper from an Education Reserve to a Flora and Fauna Reserve. This would mean an improved level of protection for the reserve, par-

ticularly from future mining or mining exploration as the Conservation Minister would have the powers to veto any such activity - a power not available to the minister in regards to Education Reserves. A real win for the community. DCNR has also completed the vegetation mapping of properties around Mt. Piper. This was a requirement for the adoption of planning amendment L8 - a shire planning amendment L8 - a shire planning amendment designed to control vegetation removal on properties surrounding Mt. Piper.

Source: BEAM Newsletter No. 2 April/May 1996

Department of Constant Name Revision changes its name yet again

The Department of Conservation and Natural Resources has changed names yet again. News of the change was quietly announced sometime in April after the state election in March 1996. The new name is the Department of Natural Resources and Environment. The new Minister for Agriculture and Natural Resources is Pat McNamara and the new Minister of Conservation and Land Management is Marie Tehan. We don't have detail at hand about any changes in structure at the moment but these may have occurred as well. Don't we live in absurd times? The present Victorian government has made tongue-in-cheek sarcasm into a reality yet again.

Update on *Diuris sp. aff. lanceolata*— Small golden moths.

Proposed development on the Slough Estate.

(refer Indigenotes VOL 9 Nos 3, 4)

At the present time IFFA understands that the Department of Natural Resources and Environ-

ment (NRE) is attempting to negotiate a solution or may alternatively resolve the matter through the Administrative Appeals Tribunal (AAT).

In a letter sent to the Australian Native Orchid Society, ANOS, by the previous Minister for Natural Resources, the Hon, Geoff Coleman, he indicated that he was prepared to use an Interim Conservation Order (ICO) to protect the orchid and had instructed the Department to prepare a Critical Habitat Determination and ICO for immediate use if needed.

Keeping Kiama biologically diverse

The municipality of Kiama is a biologically diverse region. Wetlands, rainforest, sclerophyll forest, coastal and heathland ecosystems exist in the region, providing habitat for around 45 mammal species and more than 200 species of birds. At least 17 nationally rare and threatened species of plants occur in the Kiama area and two endangered amphibians have been found.

In recognition of the ongoing threats to the biological diversity of the region, the Kiama Municipal Council set about developing a policy on Biodiversity. In preparing the report, the role of councils in biodiversity was identified as including the following responsibilities:

- Managing large areas of land and water, and implementing management practices that consider biodiversity;
- Carrying out many activities (eg road-building and waste disposal) which may affect the state of biodiversity;
- Acting as the determining authority for the majority of private sector developments impacting on biodiversity; and
- Raising community awareness of the value of biodiversity, recognising that councils are in a unique position to take action to maintain biological resources.

Adopted in September 1995, the Policy covers four main issues in the conservation of biodiversity: endangered species; habitat protection and rehabilitation of wildlife corridors; and the management of introduced animals.

The policy includes a series of strategies with which to deal with these four main issues. One strategy involves publishing a "Local Species at Risk" plant list, for use by council staff as well as the local community, with information on plant characteristics, propagation, habitat requirements and the value as a habitat for fauna. Another strategy is to develop a propagation program at the Council nursery, using local genetic material, for plant species at risk, both for use in council plant-

ing programs and to provide to the public.
For further information, contact Peter Nelson, Kiama Municipal Council, on 042 320 288.

Source: Local Environs, Vol. 7 No. 1, April 1996

Significant sites identified in Victoria

Three very different Victorian municipalities are undertaking sites of biological significance studies, for similar reasons but with different target groups.

Amalgamated councils in Victoria are taking stock in many ways. For instance, one process is to document natural sites for protection.

Maroondah City Council is at the foothills of the Dandenong Ranges in Melbourne's outer East. Its study involves the assessment and mapping of all sites of significance on public and private land, including defining the area and degree of significance, identifying management issues and formulating appropriate protective land use controls for incorporation into the planning scheme, policy and local law development.

The study will be presented for use by non-specialists. In particular it will contain: practical management measures to be taken by council, other land managers and Friends groups; useful guidance to planners assessing development proposals, rezonings and vegetation clearance permits; and data which is intelligible and useful to land-holders.

Community involvement has been attracted through talks to community groups, seeking permission to visit private land, input to a butterfly survey, and soon, seeking comment on the draft report. Most importantly it is hoped the study will promote community pride, recognition and appreciation of Maroondah's unique natural values.

In Bayside, a largely residential foreshore "middle-ring" municipality south east of Melbourne, a flora and fauna survey on public land is being undertaken. The study is also being identifying representative areas for protection. Management recommendations are being produced to assist the development of management plans for council staff, particularly in relation to degrading processes, significant species management, use of fire and the potential of sites for restoration, especially wetlands and boggy areas, which, once common, have been almost entirely reclaimed for residential development. While little of significance is known on private lands, consideration is being given to working with landholders whose properties abut bushland, to reduce the spread of garden weeds.

In the Shire of Cardinia, a municipality on the fringe of Melbourne's south eastern sprawl, a study of both public and private land has emphasised the need for education of landholders, mainly

farmers, about protection of these sites. Two information days, one for 'hill' farmers and ones for the 'flat landers', have been well attended and supported by locals. The shire has also produced a comprehensive pamphlet leading landowners through the first steps of protecting and enhancing native vegetation on their land. The sites of significance scattered through-out the shire provide habitat for species in danger of extinction, such as the Helmeted Honey Eater, the Orange Bellied Parrot and the Powerful Owl.

Fortunately, remnant vegetation in the municipality is on land unsuitable for agriculture, hobby farming or urban expansion. However, clearing, weeds and feral and grazing animals are still a threat to its long term survival.

Vivienne Fraser, Environmental Planner, Maroondah City Council, Phone (03) 9871 0369.

Source: Local Environs, Vol. 7 No. 1, April 1996

Books and Publications

Koala Story Books

The small A5 booklets sponsored by the Toohey Forest Protection Society and prepared by the President, Rob Simson, and nature artist, Liz Mayfield, are now available. The stories are designed to be informative as well as entertaining. One thousand of each four titles have been printed and will be available to members (and hopefully others?) who want them for their children or grandchildren at a discounted price of **\$2.00 each or a set of four will cost \$9.00 posted** to members. There has been no cost to the Society because of a Government Grant for the project yet we will benefit through the sales.

The titles are:

Fred's Tree

Spotting Koalas

Fred's Walkabout

Fred Goes to Hospital

Copies will be available through the post. Orders can be sent to Toohey Forest Protection Society, P.O. Box 2014, Runcorn QLD 4113.

Marine and Coastal Sites of Significance in Victoria

This is the title of a report (Dec. 1995) to the Australian Heritage Commission prepared by Nicci Tsernjavski for the Victorian National Parks Association. The report builds on a 1992 VNPA project which developed a set of criteria to assess marine and estuarine areas for National Estate values. The current document develops a very detailed nomination form and guidelines to assist the nomination process, submits recommendations on some selected Victorian sites, and reports on some preliminary survey work in western Victoria - to which the Marine Research Group contributed.

Source: Marine Research Group of Victoria Inc. Newsletter March 1996

Australian Farm Journal "Bush" Magazine

This magazine was first published in July 1995 in the Australian Farm Journal as the third publication in the Australian Nature Conservation Agency's Info Access Series. "Bush" Magazine details 17

case studies which demonstrate how farmers are using native vegetation to lift profitability. It's a great little publication presenting practical inspiration for sustainable land use that respects indigenous biodiversity. It has now been reprinted by ANCA and free copies can be obtained from the Community Landcare Conservation Unit on 1 800 671 717.

Investigating Australian Ecosystems

By the Victorian Association of Environmental Education, Peter Preuss and Geoff Duke
A complete course for senior students.

Contents

- 1 Our Australian Inheritance
- 2 Ecosystems
- 3 Describing Ecosystems
- 4 How do ecosystems work
- 5 The impacts of human land-use
- 6 Human impact on aquatic ecosystems
- 7 Wildlife Conservation and utilisation
- 8 Management of ecosystems

Features

- Guest Essays

Tony Law and Paul Mitchell, Central Land Council

Neil Barr, Dept. of Agriculture, Victoria

Ian Hore-Lacy, Environmental Consultant

Pat Condina, Melbourne Water

Patricia Caswell, Former Executive Director, ACF

- Case Studies

The Yam Daisy

Hattah-Kulkyne National Park

The Brown Antechinus

The penguin parade

Blue-green algae

The New Holland Mouse

-Extension Studies

Membership / Renewal / Change of Address Form

I wish to become a member of IFFA>
(Costs \$40 for non-profit organizations, \$50
for corporations, \$25 for individuals
and families, or \$20 concession.)
Membership includes Indigenotes.

\$_____

I wish to renew my membership

Please change my address details to those below

I wish to make a donation of

\$_____

I enclose a cheque for the total of

\$_____

Name: _____

Ad-
dress: _____

Suburb or City: _____ Postcode: _____

Phone: (home) _____ Phone: (work) _____

Return to:
Indigenous Flora and Fauna Association
Membership Secretary
P.O. Box 328
Clifton Hill 3068.

IFFA activities:

IFFA (Vic)

Next meeting:

Tuesday 28 May, 7:30 pm at the Astonomer's Residence at the Botanic Gardens, South Yarra (Melways 44 A12).

This month we will hopefully see some beautiful old slides of orchids and other plants from a member's field naturalist aunt and we will definitely have a "Show and Tell Night". Please bring any plants or specimens of interest or to be identified and other topics to be discussed.

Everyone welcome!

Committee meeting:

The Committee meeting is now the second Monday of every month, except for next month. It will the second Tuesday, 11 June, at Roger Jones' house.

SPIFFA

Contact Mark Adams (059) 851122.

Table of Contents

Urban Tree Decline: Cryptic Loss	2
<u>Speaker Report: The Significance of Riparian Vegetation for Aquatic Fauna</u>	4
Amcor plans for South Gippsland	5
State Gov't Backflips on Pt. Lillias	6
<u>Coming Events:</u>	7
<u>Snippets:</u>	8
<u>Books and Publications:</u>	14
Membership Application	15

Office Bearers:

President: Roger Jones, 106 McConnell St., Kensington 3031. Ph. (03) 372 1582 (ah) or (03) 9239 4555 (bh). Fax (03) 9239 4 88. Email: roger.jones@dar.csiro.au

Vice-President: Peter Tucker, (03) 9818 1537 (ah).

Secretary: Lill Roberts, P.O. Box 192, Blackburn South 3130, Ph. (03) 9878 0858.

Membership Secretary and Treasurer: Neil Gardiner, P.O. Box 2055, East Ivanhoe 3079, (03) 9499 7048.

Committee members: Libby Anthony (03) 9807 2834, Geoff Carr (03) 9481 7679(bh) and (03) 9380 8582.

Editorial team: c/o P.O. Box 228, Preston, Victoria, 3072.

Editor: Lincoln Kern, (03) 481 4682 (ah).

Coming Events: Elissa Kerassitis (03) 9379 1116 (ah).

Contributions to *Indigenotes* should be sent to the editors — the deadline for the next issue will be June 12th. Contributions can be typed or hand written but computer disk copies on IBM-compatible format is preferred.

The views expressed in Indigenotes are not necessarily those of the Indigenous Flora and Fauna Association.

Membership

IFFA membership costs
\$40 for non-profit organizations,
\$50 for corporations,
\$25 for individuals and families,
or \$20 concession.

Membership includes
11 issues of *Indigenotes* per year.

*Memberships should be sent to the
Membership Secretary.*

*Include your name,
address and phone numbers,
and a bit about yourself.*