

## INDIGENOTES

AUGUST  
VOLUME 2, NUMBER 8, JULY 1989.

### **August Meeting**

Tuesday 29 August. **Please bring something to show us and tell us about.** 8 p.m. on the 3rd floor, Ross House, 247 Flinders Lane, Melbourne (between Swanston and Elizabeth Streets). To get in, be on time, or yell loudly, as the doorbell doesn't ring on the 3rd floor.

### **September committee meeting**

Tuesday September 5. 6.30 p.m. at Michele and Peter's, 2/81 Alexandra Avenue, South Yarra. Bring a plate of food to share.

### **September Meeting**

Tuesday 26 September.

**Articles:** Contributions to Indigenotes should be sent to the editor, Tony Faithfull, 10 Alsace Street, Brunswick East, 3057 Tel (03) 3860264. The deadline for the September issue is 1 September. See inside for instructions to authors.

**President:** Geoff Carr, 29 Fenwick St, Clifton Hill 3068. (03) 4894191 (work), (03) 205784 (home).

**Secretary:** Michele Arundell, 2/81 Alexandra Ave, South Yarra 3141. Tel (03) 2674173 (home), (03) 6509424 (work).

**Treasurer:** Susan Lee, Tel (03) 818 5177 (home) Flat 5/24 Lisson Grove, Hawthorn 3122.

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

Before reproducing any material from Indigenotes, please ask the author and editor for permission, and please include an acknowledgement of the form "Reproduced from Indigenotes, the newsletter of the Indigenous Flora and Fauna Association."

### **CONTENTS:**

<b>An open letter to the Minister for CF&amp;L re. grassland conservation by Geoff Carr.</b>	<b>2</b>
<b>Disused Railway lines by Peter Tucker.</b>	<b>3</b>
<b>Control of Environmental Weeds - A seminar.</b>	<b>3</b>
<b>The genus Oxalis in Victoria by Doug Frood.</b>	<b>4</b>
<b>Coming Events</b>	<b>6</b>
<b>South-east forest of NSW by Mark Adams</b>	<b>7</b>
<b>Profile: Environment Institute of Australia</b>	<b>8</b>
<b>Profile: USERP</b>	<b>9</b>
<b>Snippets</b>	<b>10</b>
<b>Bushland invaders</b>	<b>11</b>

# An open letter to the Minister for Conservation, Forests and Lands regarding grassland conservation in Victoria

from Geoff Carr\*

Dear Ms Setches,

I write this heartfelt personal plea for grassland conservation as a professional botanist of long standing and as the President of the Indigenous Flora and Fauna Association. Like many people I am appalled at the conservation status of grasslands, particularly Kangaroo Grass grasslands.

Such grasslands once covered about one fifth of the state but most of the approximately 0.1 % of the total remaining is in private hands; on present trends the bulk of these grassland communities will be irretrievably lost in the next few years. Many grassland plant species are also under threat and critically endangered. A substantial number have not even been described and it is likely that some will become extinct before they receive a name!

There is universal agreement amongst biologists about the conservation status and significance of grasslands and grassland species and the need for urgent conservation action. No broad vegetation type is more critically endangered and it is a sad commentary on the professional and amateur conservation and scientific community that grasslands presently have such a low profile.

If forest vegetation was so endangered there would be elaborate campaigns, massive protests and visits and pronouncements by international heavyweights, the likes of David Suzuki, David Bellamy and Paul Ehrlich. Alas no such thing.

We cannot claim to be ignorant of grasslands and their plight. In the last decade or so, numerous studies have been carried out on their distribution, composition, ecology, management and conservation status. Your own department employs many of the leading grassland experts who have produced documents of great significance.

One of the most important was the study by Stuwe (1986)<sup>1</sup> which unequivocally spelt out the dire conservation status of native grasslands and the need for immediate action. Thus the biological community was extremely heartened by Joan Kirner's press release of this document in early 1987 and its implicit assurance of conservation action.

Alas, nothing has happened to better the conservation status of grasslands. It is tragically ironic that grasslands are no more secure now than when Stuwe's report was published or indeed than they

were 10 years ago. We lose sites on private and public land almost on a daily basis, many of them of national or state significance. There is no mechanism in place even to conserve and manage sites on public land e.g. rail reserves.

Therefore Ms Setches, I humbly and respectfully appeal to you to institute immediate action to redress the situation. In the first instance the Cooper Street grassland site should be reserved in its entirety otherwise its significance will be tragically diminished. A grassland conservation and management strategy should be formulated as a matter of urgency in consultation with your own expert officers and the wider community of biologists and naturalists.

Many people are, not surprisingly, very cynical about the Government's performance on grasslands conservation. On present trends it looks as though the Government will oversee the almost total destruction of grasslands and grassland flora in Victoria. John Stuwe's (1986) sad prophesy will become reality:

*"The potential extinction of native grasslands from Victoria cannot be compared to the extinction of a single species. The loss is more comparable to the extinction of Eucalypt forests from Victoria. The total loss of our forests is unthinkable, but the total loss of our native grassland has almost happened without a thought. Urgent conservation action is now required to prevent a conservation catastrophe of a scale which will bring international discredit to all involved."*

With all my heart I appeal to you Ms Setches to prevent this happening.

Your sincerely

Geoff Carr,  
Consulting Botanist, and President of the Indigenous Flora and Fauna Association.

Copies to CCV, VNPA, editor of Indigenotes, Mr Ian Weir, Friends of the Merrit etc.

<sup>1</sup> Stuwe, J. (1986). An assessment of the conservation status of native grasslands on the western plains, Victoria and sites of botanical significance. Tech. Report Series No. 48, Fisheries and Wildlife Service, Dept. Conservation, Forests and Lands.

\*13 Lawson St, East Hawthorn 3123  
1/9/1989

# Disused Railway Lines

By Peter Tucker\*

The Victorian Department of Conservation, Forests and Lands (CFL) have produced a broadsheet on the planning process for disused railway lines. The first line up for a management plan is the Hamilton to Coleraine line.

For most of its length the railway line passes through flat to undulating red-gum tablelands. The vegetation varies from land with sparse tree cover and shrub understorey to areas of native grassland to sites consisting mainly of introduced pasture species. Since the line's closure some areas have been subjected to continuous grazing whilst others have had little or none.

Importantly the railway line represents one of the few remaining areas of public land in the district.

The broadsheet covers some of the issues in need of discussion and input, that is their value for:

- the protection of remnant plant and animal communities;
- as linear reserves for flora and fauna;
- as open space for recreation;
- as seed source of local genetic material for revegetation projects;
- in preserving historic aspects of railway lines such as stations, bridges and tunnels;

and land protection issues such as control of pest plants and animals and fire protection.

CFL has established a local advisory committee which will include representatives from the State Transport Authority, CFL, Municipalities within whose boundaries the disused lines occur, Regional Planning Authority (Ministry for Planning and Environment), Country Fire Authority, Land Protection Regional Advisory Committee, Victorian Farmers Federation, Municipal Association of Victoria, Conservation Groups (via Conservation Council of Victoria).

The committee's role will be to evaluate submissions and advise the Ministers of Transport and CFL regarding uses of the railway line. This will be based on information received from submissions and other relevant information.

If IFFA members wish to make a submission (closing date 1 September 1989), it should be addressed to Andrew Ginns, Project Officer - Disused railways, Department of Conservation,

Forests and Lands, State Public Offices, 17 Thompson St, Hamilton Vic 3300. For further information contact Andrew Ginns on (055) 723033, or Paul Stephens, Greening Australia, 50 Whyte St, Coleraine Vic 3315, Phone (055) 752226.

I am going to put a submission in on behalf of IFFA. If members have information on the area or advice on people to contact it would be greatly appreciated if they could pass it on to me. I can be contacted on (03) 493 486 (work, Monday, Wednesday and Friday), or (03) 267 4173 (home).

Information in this article was taken from the CFL broadsheet.

## Control of Environmental Weeds Workshop

This workshop organised by the Department of Conservation, Forests and Lands in conjunction with the Weed Science Society of Victoria will be held at Studley Park Receptions, 3 Walmer St Kew.

Its Objectives are:

- to improve information flow between groups involved in environmental weed control,
- to examine and assess the techniques currently used to control environmental weeds,
- to identify difficulties associated with the control of weeds in native vegetation,
- to develop ideas which may lead to improved weed control techniques.

Speakers in the morning will be on weed control activities in Sherbrooke Forest, Heathlands, native grasslands, riparian environments, and at La Trobe University Wildlife Reserves.

The afternoon session will consist of a field trip in Studley Park, and the possible release of Biological control agents for Boneseed.

Saturday 28th October, 8 am to 4 p.m. Cost will be \$28 and will include light lunch and proceedings.

Registration forms are available from Robin Adair, P.O. Box 48 Frankston 3199 or phone (03) 7850111. Cheques should be made payable to the Weed Science Society of Victoria.

\* 2/81 Alexandra Ave, South Yarra 3141.

# The genus *Oxalis* in Victoria

by Doug Frood

## The genus *Oxalis*:

*Oxalis* L. is a genus of small herbs with leaves divided into 3 to 7 leaflets (3 in the case of all Victorian species) which are arranged in a palmate (digitate) manner at the end of the petiole (leaf stalk). The flowers are solitary or umbellate (the pedicels or individual flower stalks arising in a cluster from the end of the main flowering stalk), and range in colour from white, through yellow, pink, and red to purple. The fruit is a five-celled capsule. The growth habit ranges from tufted, lacking aerial shoots, to trailing. The underground parts of many species include fleshy storage organs (e.g. bulbs, contractile tubers). The seasonal formation of numerous bulbils off the old underground parts of some species can result in rapid increases in numbers of plants, and established populations can be difficult to control. Bulbils can also be formed on aerial stems, as in *O. incarnata*, a common very pale mauve-flowered weed in gardens.

The genus was considered to contain about 250 species, mostly from South Africa and tropical South America (Black, 1977). 16 species of *Oxalis* are currently regarded as components of the Victorian flora (Forbes and Ross, 1988). 10 of these are introduced, and 6 are indigenous. Willis (1973) notes an additional two species as having had at least transitory occurrences in the State.

## Indigenous species and the *O. corniculata* group:

With the exception of the rare *O. magellanica* of wet subalpine habitats in the central highlands, the indigenous species were included within the yellow-flowered *O. corniculata* species aggregate by Willis (1973). While the taxonomy of this group is still far from resolved, preliminary nomenclature and a key were provided by Thompson (1982), developed from a revision by Lourteig (1979) which included the Australian specimens in European herbaria. This key provides some means of discriminating indigenous taxa from the introduced *O. corniculata* sens. strict. and a related species for which a satisfactory name is not yet available, and was intended to stimulate the increase in collection of specimens and data necessary for future revision.

The *O. corniculata* group (in Victoria, 7 species, 5 indigenous) are of trailing habit, with runners or slender rhizomes and sometimes stout taproots, but lacking bulbs. *O. corniculata* s.s. is only a

minor weed, primarily of urban areas (e.g. gardens and cracks in paving), and control is relatively simple. Indigenous species of this group also persist in the suburbs, so maybe its better to take a close look at them weeds before getting out the sledgehammer or shotgun.

## Other exotic species:

Carr and Yugovic (1988) recognize the remaining 8 introduced species as weeds of native vegetation (i.e. environmental weeds), with four being considered serious threats to one or more plant communities in Victoria, and the status of the others inadequately known. *O. articulata*, from Paraguay, lacks bulbs but has perennial rhizomic stems and tuberous roots. The other seven are bulbous geophytes of South African origin. All were apparently introduced as garden plants. Dispersal of these species is by vegetative fragments, through soil disturbance or cultivation, the disposal of garden refuse, and transfer in contaminated soil. In the case of *O. pes-caprae* (Soursob), dispersal in contaminated nursery soil has been significant, and spread from existing patches can be by water movement, or in mud, earth and gravel, particularly in road construction activities. Birds feeding on bulbs may also be responsible for some dispersal, as patches are often found under trees used as perches (Parsons, 1976). Regeneration from seed rarely if ever occurs in Victoria, at least in the case of *O. pes-caprae*, and probably also these other 7 species.

*O. pes-caprae* is the most widespread and abundant of these species, and is a serious weed of both agricultural land and 'natural' communities. It is a declared noxious weed, and documentation is far better than for the other introduced taxa. At least six forms occur in South Australia, varying in the lengths of styles, markings on the leaflets and sepals, and the shape and size of the tuberous roots (Parsons, 1976). The species is believed to have been introduced to South Australia in 1839, where it was recognized as a weed in gardens and wheatfields by 1879. It was considered naturalized in Victoria in 1907, and Beaglehole (1980) records it from 21 of the 24 major grids covering the State, and all but one (Alpine) of the 13 Land Conservation Council study areas.

*O. pes-caprae* is a strong competitor in crops and pastures, and in S.A. has been estimated to cause a 20-50% loss in yields of cereal crops. Farmers'

estimates include a drop in yields of oats from 14 bags to 2 bags per acre on heavily infested patches. It is also toxic to stock. *O. pes-caprae* is reported to be able to increase the mass of its bulbs and bulbils by up to ten fold each year, up to 4000 lb. per acre - approx. 4500 kg/ha (Parsons, 1976). This species is a good example of society's reluctance to learn from experience - despite early examples such as *O. pes-caprae*, almost no effective controls exist on new imports of plants (provided quarantine levels for micro-organisms and invertebrates are met!) and various government and private agencies have been and still are involved in mass imports of potentially serious weeds for pasture development, soil stabilization and horticulture.

So much for Soursob in the farms and 'burban areas: what about in bushland? Carr and Yugovic (1988) record it from a wide range of habitats, including communities of coastal and inland dunes, mallee shrublands, grasslands, grassy woodlands, riparian sites and cliffs.

***O. purpurea* (Large-flower Wood-sorrel)** appears to be the next most widespread and populous, being recorded from ten major grids by Beaglehole, principally in the southern part of the State. As well as occurring in coastal communities, grasslands and grassy woodlands, its range extends into moist sclerophyll forest (Carr and Yugovic, 1988).

***O. incarnata* (Pale Wood-sorrel)** is also considered serious and recorded as widespread by Carr and Yugovic, though currently of small populations, and occurs in a wide range of vegetation types (including coastal vegetation, grassy woodlands, dry and moist sclerophyll forests and riparian vegetation). Beaglehole records it from 7 major grids.

***O. latifolia* (Large-leaf Wood-sorrel)** is considered a serious weed in dry sclerophyll forests, though currently of limited distribution and small populations.

There is little information on the remaining four species: *O. corymbosa* (Pink Shamrock), *O. articulata* (Wood Sorrel), *O. bowiei* (Bowie Wood-sorrel) and *O. hirta* (Halry Wood-sorrel). *O. co-*

*rymbosa* appears to be relatively widespread in eastern Victoria, and Carr and Yugovic record it from coastal habitats, grassy woodlands and dry sclerophyll forests. They also record *O. articulata* from the latter two habitats.

### Control:

*O. pes-caprae* is seasonally vulnerable, at the 'old bulb exhaustion stage', which occurs over a short period some time between May and late July. At this stage the old bulbs have become thin and flaky, the small bulbils formed within these are still too small (<1.5 mm diameter) to survive independently, and some plants will have just started to form a fleshy tuberiform root below the bulb. Old bulb exhaustion can only be detected by examination of underground parts of the plants (Parsons, 1976). Control efforts should be concentrated on this stage in the plants life-cycle. Parsons (1976) records that cultivation and spraying are effective in reducing the population. The appropriateness of any technique will vary according to the context in which the infestation occurs. In most bushland situations, soil disturbance is likely to be counter-productive to the aims of rehabilitation. Hand-pulling at bulb exhaustion stage can be effective, though time-consuming, provided follow-up weeding occurs. Spraying with Glyphosate has also proved to be fairly effective. Trials in the use of flame throwers on the plant at this stage have produced promising results (it is easily wilted if the surface is dry). Some reappearance of aerial parts followed, with only sparse regeneration the next year (D. Duggan, pers. comm.). This treatment may offer potential for control in bushland situations with the minimum of environmental damage.

The other problem species do not appear to have such defined seasonal weaknesses, though further investigation is clearly required. Tests of 'Round-up' (Glyphosate) on *O. purpurea* have had limited success (D. Duggan, pers. comm.). Exhausting the bulbs of *O. incarnata* by hand-pulling is a long process (at least in heavy soils), where the plant may win the battle of patience - removal of aerial parts prior to shedding of the bulbs formed in the leaf axils will limit its dispersal however. Under certain circumstances, removal of infected topsoil (or hand-digging of individual plants, depending on the scale of infestations) may be the only realistic means of control. Digging should be timed to coincide with the potential for maximum

continued on page \*

# Coming Events

## AUGUST

- 26 Saturday, 1.30 pm. **Moorooduc Quarry Reserve project day** (picnic reserve) - Mount Eliza Association for Environmental Care. Mel. ref. 106 A7, meet at Two Bays Road. Contact Anne Read (03) 787 2034.
- 26-27 Sat-Sun. **Tree planting - Warrandyte.** Australian Trust for Conservation Volunteers. Contact ATCV (053) 33 1483.
- 26-27 Sat-Sun. **Tree planting - Kyneton.** ATCV (053) 33 1483.
- 26-27 Sat-Sun. **Water Rat survey - Werribee.** Fauna Survey Group, FNCV. Contact Julian Grusovin (03) 543 8627.
- 27 Sunday, 10.30 am. **Ash roading and Leadbeater's Possum.** Public meeting and nature drive. Meet at the Healesville Memorial Hall in Main Street, Healesville, Mel. ref. 247 K3. For more details see "Snippets". Contact CCV, 654 4833.
- 27 Sunday, 10 am. **Moorooduc Quarry Reserve**, spring wildflower walk and weed removal, Flora and Fauna Reserve. Members anxiously wondering if leaves of endemic Spider Orchid are out yet. MEAFEC see 26 August.
- 27 Sunday. 9.30 am. Blackburn Tree Preservation Society, Men of the Trees and Mullum ACF **Boneseed pull.** Glenvale Road, Ringwood. Contact Les Smith (03) 874 2641.
- 27 Sunday. **Friends of Warrandyte State Park** activity day - visit to Morwell S.P. Contact Ian or Margaret Burke (03) 844 1060.
- 27 Sunday, 10 a.m. La Trobe University Wildlife Reserves Support Group. **Gresswell Forest project day.** Contact Laurie Whelan (03)479 2871.

29 Tuesday, 8 pm. **IFFA meeting.** For details see front cover.

- 31 Thursday, 10 am. **Friends of Warrandyte State Park propagation day.** Guided by ranger staff. Bring lunch. Contact Ian or Margaret Burke (03) 844 1060.

## SEPTEMBER

- 2-3 Sat-Sun. **Tree planting - Phillip Island.** ATCV (053) 33 1483.
- 3 Sunday, 1.00 p.m. **Friends of Langwarrin Flora and Fauna Reserve** activity day. Track improvement (viaduct trail), followed by wildflower walk. Meet at the McLelland Drive car park, Mel 103 C10. Contact Anne Read (03)787 2034 or Leon Costermans (03) 783 5015.
- 3 Sunday, 9.30 am - 1 pm. **Megaplanting at Banyule Flats.** Riverlands Conservation Society. Contact Beryl Jarman (03) 45 1845.
- 5 Tuesday, 8 pm. **Brush-tailed Rock-wallabies in the Grampians** and comments on the use of hair analysis as a mammal survey tool, by Bert Lobert. Fauna Survey Group of the FNCV. The Astronomer's Residence. Birdwood Ave., Sth. Yarra. Contact Julian Grusovin (03) 543 8627.
- 7 Thursday, FOWSP propagation day. See 31 August.
- 9-10 Sat-Sun. **Strathbogie Ranges campout** of the Fauna Survey Group - FNCV. Contact Lawrie Conole (03) 481 4926.
- 14 Thursday, FOWSP propagation day. See 31 August.

- 17 Sunday, 9.30. **Tree project planting at Darebin Creek,** Southern Rd., Mel 19 E12. Bring planting gear. The Tree Project (03) 663 3281.

- 23 Saturday, 10 am - 5.30 pm. **ANGAIR Wildflower Show.** Annual event held by ANGAIR (Anglesea and Aireys Inlet Society for the Protection of Flora and Fauna). Many special features included, such as excursions. Anglesea Hall, McMillan St. Contact Ms M. White, (052) 631 975.

- 23 MEAFEC see 26 August.

- 24 Sunday. **ANGAIR Wildflower Show.** See 23 September.

- 24 MEAFEC see 27 August.

- 24-27 Sun-Wed. **Ecological Society of Australia Open Forum.** University of Wollongong, NSW. Dr Ros Muston, Department of Zoology, University of Wollongong, NSW.

26 Tuesday, 8 pm. **IFFA meeting.** For details see front cover.

- 28 Thursday, FOWSP propagation day. See 31 August.

- 28-29 Thurs-Fri. **"State of our rivers"**, Issues in Water Management 2, Australian National University, Canberra, ACT. Shirley Kral, State of our Rivers Conference, Centre of Continuing Education, ANU, GPO Box 4, Canberra, ACT 2601.

- 28-1 Thurs-Sun. **Nooramunga Marine Coastal Park survey,** eastern islands. Campout, Fauna Survey Group - FNCV. Contact Lawrie Conole (03) 481 4926.

- 30 Saturday, 9.30. **Tree Project planting at Bayule Flats,** Heidelberg. Enter Somerset Drive, Mel 32 F3. Bring planting gear. The Tree Project (03) 663 3281.

## OCTOBER

- 9-11 Mon-Wed. **"Environmental practice - sustainable development"** Second national conference of the Environment Institute of Australia. Contact: Secretariat, Mandy Bromlrow, Bloomsbury Conference services Pty. Ltd., 232 Bridge Road, Richmond, Vic, 3121, phone: (03) 429 4322.

- 28 Saturday, 8 am - 5 pm. **"Environmental weed control"** - seminar and field afternoon hosted by the Weed Science Society and the Department of Conservation, Forests and Lands. The program will include speakers discussing weed control in native vegetation, with emphasis to be placed on practical aspects. The afternoon session will examine weed control in Studley Park with the anticipated release of biological control agents for Boneseed. Cost: \$28, includes light lunch and proceedings. Registration, 8 -9 am. Studley Park Receptions, 3 Walmer St, Kew. For further info contact R. Adair or B. Richardson at the Keith Turnbull Research Institute, (03) 785 0111, or P.O. Box 48, Frankston.

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 V.N.P.A. (03)654 6843.

# The Woodchip Inquiry Report: A mixed bag for the forests

The Victorian Government and timber industry's plans for large-scale woodchipping in East Gippsland have moved closer with the release in late June of the report on the so-called "Value Adding Utilisation System" (VAUS).

## Woodchip trial given go-ahead

The report was written by an independent inquiry panel who were appointed to assess the VAUS proposal. They have recommended that a modified trial proceed, allowing "residual roundwood" (mainly destined to become woodchips) to be extracted from East Gippsland's forests for the first time.

This means a major intensification of already damaging logging practices and will inevitably result in far greater environmental damage. Eventual full-scale operations under VAUS will result in the entrenchment of clearfelling, shorter rotations, and far greater areas of forest being logged, all to meet the growing demand for pulp. Our magnificent wild forests will become little more than tree farms.

However, the report was not all bad news! All the work put into the panel hearings by the Coalition and supporters has resulted in the trial being halved in volume and extended from three to six years.

### Key recommendations:

#### The VAUS Trial

- Restrict the trial to 150,000 m<sup>3</sup> a year from East Gippsland and 20,000m<sup>3</sup> a year from Central Gippsland (reduced from a proposed overall volume of 300,000m<sup>3</sup>). The trial to run for six years rather than three as proposed by Dept of Conservation Forests and Lands (DCFL)
- The trial to be a thorough assessment of the environmental effects of timber harvesting and management (including the Code of Forest Practice), in addition to being a trial of VAUS. It should include other silvicultural systems as well as clearfelling. An EES should follow the trial.
- Undertake surveys of areas logged to help understand the long term effects of logging, and a long term monitoring program to continue after the trial is complete (80-150 yrs).
- Complete the promised initiatives such as regional Codes of Practice, guidelines for wildlife habitat management, management plans for rare and endangered species, mapping and assessment of ecologically mature forests.
- Establish and publish estimates of timber resource availability including statistical confidence limits.

#### Other Environmental Recommendations:

- Implement the following environmental safeguards until there is scientific evidence that they are no longer necessary:
  - (a) moratorium on logging of ecologically mature ash forest in Central Gippsland.
  - (b) moratorium on logging of Long-footed Potoroo habitat.
  - (c) retain unlogged ridgetop corridors connecting catchments, streamside reserves and National Parks in East Gippsland.
- A substantial area of inherently low timber volume forest be reserved from logging.
- No timber production in National Estate forests without the express written approval of the Minister for CFL.
- A comprehensive EES be prepared for any proposed pulpmill development.

Furthermore, the report also includes a damning assessment of the appalling lack of knowledge of the environmental effects of logging. It dismisses the Government's Code of Forest Practice as scientifically baseless and condemns the Government for its failure to implement protection measures for endangered species.

These findings are highly embarrassing for the Government. Unfortunately it is clear that it intends to misinterpret or even ignore many of the key environmental recommendations. In fact, the Government's initial evasive response to the report indicates that it views the VAUS trial as merely an inconvenient formality it must observe to clear the way for full-scale woodchipping and possibly a pulpmill in East Gippsland.

It will be up to the community (us!) to force the Government to meet its environmental responsibilities.



Long Footed Potoroo. Drawing by Carol Crowe

### Other key findings include:

- There is a lack of data to assess the environmental effects of current harvesting practices, let alone the additional effects of residual roundwood removal (as proposed under VAUS).
- The Government's commitment to a genuinely "sawlog driven" (rather than woodchip/pulp driven) industry can only be met by moving to less intensive (and less destructive) harvesting practices. This would not be compatible with a large-scale woodchipping operation or a pulpmill.
- No National Estate areas should be logged during the VAUS trial and clearfelling in these areas should cease.
- The Victorian Government has not taken appropriate measures to protect rare and endangered species in logged areas.
- The Government's Code of Forest Practice is scientifically baseless and cannot be relied upon to protect environmental values in logging areas



## Government ignores key environmental recommendations

Despite the VAUS panel's scathing assessment of the Government's performance, the Government intends that woodchipping will proceed and that few of the environmental concerns will be seriously addressed.

They have agreed to the trial proceeding under the conditions recommended by the panel, but are determined that it will begin this summer. This will not allow sufficient time for the scientific aspects of the trial to be put in place. This effectively reduces the trial period by a year and makes a mockery of what the trial sets out to achieve: a better understanding of the effects of woodchipping!

To make matters worse, the Government has refused to rule out the possibility that a large scale commitment of residual roundwood for a new pulpmill could be made before the trial is completed. They have given no indication that they will move to protect the National Estate.

The Government has effectively ignored recommendations to exclude logging from wildlife corridors, mature ash forest in the Central Highlands and Long-footed Potoroo habitat in East Gippsland. They have responded by claiming that the objectives of these recommendations can be met by strict adherence to the Code of Forest Practice: a document the VAUS panel has found to be scientifically baseless!

## Action needed now to make Government meet its environmental responsibilities

The Victorian Government must not be allowed to get away with this blatant attempt to deceive the public and to ignore its environmental responsibilities.

Intensive logging should be shifted from native forest to plantations. We are calling on the Government to undertake a study to determine whether we need to continue to log native forest for sawn timber, let alone woodchips. Our analysis indicates we don't. It is sheer vandalism to begin a woodchip trial before such a study is complete. It would be even more outrageous to begin the trial before it is properly set-up.

Please ring, write to, or better still *visit* your state politicians in the next month asking the Government to:

- Accept the VAUS panel's environmental recommendations in full
- Undertake the study of timber supply and demand in order to determine whether there is a need to log native forest at the presently proposed rate and intensity
- Delay the VAUS trial for at least twelve months until the study is done and the scientific groundwork for the trial is complete. Similarly logging of National Estate forest should not even be considered until the study is done
- Begin planning to shift the bulk of the timber industry from native forest to plantations.

If you have Liberal or National party politicians ask for the above to be part of their policies. If you don't know who your politicians are or how to contact them, ring the EGC on 654 4833

# South East Forests of NSW

By Mark Adams \*

There is strong evidence that the current reserves in the south east region of New South Wales are inadequate for the protection of rare flora and fauna.

Coolangubra, Tantawanglo and Egan Peaks are under active study for their world heritage values and after two decades of study were declared national parks by the previous NSW Government. These new parks were repealed when the new Government came to power.

The Forestry Commission of NSW is logging and making roads into the most sensitive areas, for example along Sheep Station Creek, the habitat of the Long-footed Potoroo and in the Egan Peaks area where many rare species of plants occur.

Ninety percent of the timber that is extracted from these forests goes to the foreign owned woodchip export operation at Eden, the remaining ten percent is cut into timber for the Australian building industry.

According to the Forestry Commission of NSW 5,500 ha are "harvested" each year. At that rate of cutting the high conservation value forests, which have been listed on the National Estate will be substantially destroyed within five years. It is for this reason we believe the forestry operations are targetting the most sensitive parts of the National Estate Forests.

Despite all of the public pressure neither the State nor Federal Government has made any attempt to protect National Estate Forests in the region. However as we near a Federal Election we could manage to gain protection for some of these areas. So I strongly urge you all to write to Bob Hawke, C/o Parliament House, Canberra 2600. Ask him to protect National Estate Forests throughout Australia - this means no logging or roading.

If you are interested in further information about the South East Forests, contact the East Gippsland Coalition on (03)654 4833 or Mark Adams on (03)781 4845.

# What is IFFA?

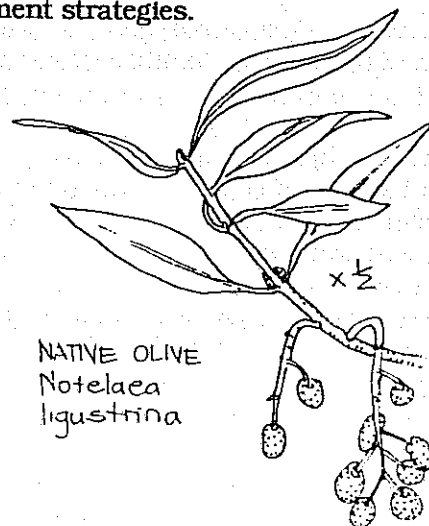
The Indigenous Flora and Fauna Association (IFFA) is an organisation dedicated to the conservation of the indigenous Australian biota. Its members, comprising both amateur and professional workers come from diverse backgrounds including botany, zoology, ecology, horticulture, environmental management, education and other fields.

The organization believes that conservation of plants, animals and the communities they form, must be based on sound knowledge of their biology, ecology, distribution, status and management requirements. To achieve these ends, we aim to foster a broad multidisciplinary approach, bringing together expertise from a wide range of professions which are too often independent and narrowly focussed. We believe this approach is necessary to maximise the conservation, social and economic benefits of responsible resource management.

In particular we wish to encourage participation and involvement in the important emerging disciplines of conservation and restoration biology, habitat reconstruction, revegetation and the active management of vegetation and fauna - on public and private lands.

It is a primary objective of the Association to research, collect and disseminate information concerning conservation matters to relevant agencies, groups and individuals. We also aim to participate in debate in environmental issues and help in the formation of conservation policies at the local, state or national levels.

The resources of IFFA are available to both the public and private sectors of the community to help establish appropriate conservation and management strategies.



## Profile:

# Environment Institute of Australia

Over the past decade and a half a new type of professional has taken an increasingly important role in Australian society. Environmental practice - in areas of environmental management, science, decision-making, consultancy, administration and education - has become a key factor of modern society.

The people who are performing these professional functions have often come from diverse backgrounds, having initially trained in such fields as engineering, mining, agriculture, forestry, planning, law, administration or economics, to name a few. Others have had training specifically related to the broad range of environmental practice or natural resource management. Whatever their backgrounds, what distinguished this new type of professional is the very nature of their work and the professional attitudes they bring to it.

Many of the present generation of environmental practitioners are members of existing professional bodies which do not necessarily provide strong environmental ties. Other practitioners are not aligned with any specific professional body, having learned their environmental management/decision-making skills as a consequence of considerable direct field experience. Both groups have the need for a common professional "home". Like any other professionals, these people require: recognition of their professional skills, a means of communicating and liaising with their fellow practitioners, and probably the strongest need, a sense of belonging to an interdisciplinary group in which they can share their professional knowledge and problems with receptive and informed colleagues.

In November 1987, as a response to these requirements the Environment Institute of Australia was formed.

The principal objectives of the Institute are to: facilitate liaison and communication between environmental practitioners from disparate backgrounds and professions through workshops and seminars, and promote environmental knowledge and awareness, and ethical and competent environmental practice. A Newsletter is published quarterly to which members are encouraged to contribute.

Any person who believes he/she has the formal qualifications or who has sufficient professional

experience in the environmental field is encouraged to apply for membership. General eligibility criteria are:

1. Any person who has formal qualifications in environmental and/or natural resource management;
2. Any person having professional expertise in environmental practice and at least 3 years relevant experience.

Students are welcome to apply to the Institute for student membership status at a cost of \$20. Please include documentation verifying present enrolment status and course being undertaken with your application.

The Environment Institute of Australia extends an invitation to interested people to attend its second national conference. The conference theme is "Environmental Practice: Sustainable Development". Over three days the conference will explore the relationship between environmental practice and sustainable development with a view to determining the extent to which sustainable development is being achieved and the changes required to environmental practice to ensure that sustainable development can be achieved.

The program will examine the definitions and theory of sustainable development, and the public and private sector responses to the needs of sustainable development. The final session will explore the implications for environmental practice and the Environment Institute of Australia of the implementation of sustainable development principles. The conference will provide a forum for the exchange of ideas and experience, and ample time for discussion will be allowed in the program.

Contact Mandy Bromilow, Bloomsbury Conference Services Pty Ltd, 232 Bridge Road, Richmond Vic 3121, Phone (03) 429 4322, for further information.

Information in this article is reprinted from the Bulletin of the Ecological Society of Australia Incorporated, and from EIA publicity material.

## Profile:

# United Scientists for Environmental Responsibility and Protection (USERP)

The association for Environmental Responsibility and Protection was established in Hobart in June 1988 by scientists disenchanted with the Helsham Inquiry into the future of Tasmania's forests. Eleven scientists gave evidence on the world heritage value of Tasmania's wilderness forests, only to have their expert opinions blatantly overruled by political considerations. Following the Tasmanian initiative, branches of USERP are now forming in nearly all the mainland states.

USERP's primary aims are to work to halt and reverse the continuing destruction of our natural environment and to work for the conservation of Australia's natural heritage. It is hoped to achieve this goal by calling for a halt to economic growth; making scientists aware of their social responsibility; and encouraging scientists to speak out and participate in environmental debates.

To achieve its primary aims, USERP is opposed to economic developments that further deplete our natural resources. Rather it promotes the investigation of new ways of making more efficient use of existing renewable resources, and of alternative economic policies based on zero or even negative growth.

Scientists must make more effort to speak out in a language that the public and politicians can understand; that is why world acclaimed science broadcaster, Professor David Suzuki, was selected as the patron of USERP. In the current economic, industrial and political climate, many professional scientists are unable to speak openly about sensitive environmental issues. Secrecy is the antithesis of good government, and denies the public a voice in decision-making. USERP intends to break through this censorship by functioning as a "union of scientists", whereby experts less susceptible to censorship (e.g. those in universities) can speak out on behalf of their censored colleagues in government departments. A consultative committee, including experts in fields such as terrestrial, aquatic, atmospheric and social sciences, will guard the scientific credibility of USERP.

USERP is not politically aligned and pursues its aims by:

- conducting regular meetings,
- funding visiting guest speakers,
- establishing study groups to address environmental crisis situations,

- advertising its opinions in the media,
- making available information to government and industry,
- liaising with other organizations which have similar aims,
- providing speakers to educational institutions and interested groups.

For further details contact any of the following USERP addresses:

- 45 Goulburn St, Hobart, Tasmania 7000. Phone (002) 343229
- Dept. of Geography and Environmental Science, Monash University, Clayton Victoria 3168. Phone (03) 565 2932, 2934 or 5672.
- P.O. Box 113, Camperdown, New South Wales 2050. Phone (02) 8181454.
- 7 Lentara Crt., Magill, South Australia 5072. Phone (08) 3326451
- 6 Levien St., Scullen, A.C.T. 2614. Phone (062) 494211
- P.O. Box 32 Acacia Ridge, Queensland 4110. Phone (07) 8021131 (AH)

## Instructions to Authors:

Indigenotes articles are not refereed, but the editor reserves the right to amend articles submitted. Please supply a contact address and phone number with the article.

The format for material to be submitted is flexible. Ideally it would be supplied in IBM ascii format on 360K 5 1/4 inch or 720K 3 1/2 inch floppy disks, accompanied by a hard copy printout, as this minimizes my work and the chances of typographical errors. Typed material is acceptable, and so is handwritten material, as long as it is clearly written and not in red ink.

The deadline for material is printed on the front page. Please respect this deadline as this makes a difficult task easier.

## Snippets:

### **Blackbirds and environmental weeds**

IFFA member Barry Woods\* writes asking whether members can advise him if research has been done on the role Blackbirds play in spreading environmental weeds...

*"If not I believe the time is long overdue for major research to be done on this subject with a view to noting the major role that Blackbirds play in the spread of some very serious environmental weeds. A reduction in Blackbird populations would be desirable, if this could be achieved.*

*I consider that the Blackbird population is continually growing and that therefore the spread of these weeds is increasing yearly. Berry fruits are a particularly favourite food of the Blackbird, and among the plants producing berries which could be classed as serious environmental weeds in some areas are Blackberries (*Rubus fruticosus*), Sweet pittosporum (*Pitosporum undulatum*), Holly (*Ilex aquifolium*), Karamu (*Coprosma robusta*), *Cotoneaster* species, plus possibly other plants including *Pyracantha* species, Hawthorn species, *Coprosma repens* and probably other plants in other areas which I am unaware of.*

*Whilst it is true to say that some native birds feed on some of these species, e.g. rosellas feed on *Cotoneaster* and *Pyracantha*, and Gang Gang Cockatoos feed on Hawthorn and that the introduced animal - the fox - feeds on and spreads Blackberries, I believe that Blackbirds are the major reason for the spread of many of these weeds in most areas.*

*In the Kalorama area (of the Dandenong Ranges, Victoria) I have observed thousands of small holly plants springing up as a result of Blackbirds feeding on the berries. I recently counted nearly thirty Blackbirds in a small area, but they are so widespread they can be observed in many areas close to civilization or on the fringe of some forest areas.*

*Blackbirds are also a dreadful bird in the home garden, disturbing mulch around plants etc, and also a major pest in orchards. Blackbirds are extremely adaptable, feeding on a large range of foods, and they may breed several times in the one season. Their competition with native birds for some types of feed and nesting sites could also be of concern. However, the spread of invasive environmental weeds constitutes the greatest threat to our forest areas, our indigenous flora and the whole ecosystem contained therein.*

*Obviously, removal of the seed sources of invasive weeds is desirable, but greater public awareness and education is also desirable on this subject. No plants regarded as environmental weeds should be able to be sold by nurseries.*

The only quick and selective method of killing blackbirds I have heard of is to bait a breakneck rat trap with ripe plum, and locate the trap on the ground under a plum tree with ripe plums on it. - Ed.

\* Lot 2, Grange Rd, Kalorama, Vic 3766.

### **Alpine Grazing**

*Victorian Update* - "A vehicle for providing information on Government Programs" - produced by the Victorian Government, tells us in an article in its July 1989 issue entitled "Environmental management of the mountains so all Victorians can enjoy them":

"Four draft management plans for Victoria's proposed 646 000 ha Alpine National Park ... are expected to be finalized early next year after consideration of public submissions."

"The phasing out of summer alpine grazing is not directly related to the creation of [the] new Alpine National Park. Improved management of alpine grazing will proceed as a separate project and grazing will continue in about 95 per cent of the Alps area currently available for that purpose."

"The research work ... shows beyond question that grazing in alpine environments has the following effects:

- Loss of species and diversity in plant communities
- Changes in vegetation structure
- An increase in bare unvegetated soil
- Physical damage to and deterioration of sphagnum bog areas
- Reduction of wildflowers and spread of weeds."

"The evidence that grazing is incompatible with conservation in alpine areas is irrefutable. There is no scientific study which shows otherwise. The alpine plant environment is extremely fragile."

While the evidence is so unequivocal, one can only conclude that the only acceptable management of alpine grazing is its complete cessation.

### **Ash Roding and Leadbeaters Possum**

Ash Roding - a twenty year roadwidening and construction program for 1800 km of roads in the Victorian Central Highlands begun by the Dept of Conservation, Forests and Lands will see forest roads in clearings up to 45 metres wide so as to allow the road surface to dry. Apart from the enormously destructive effects of the bulldozing, treeless corridors 45 m wide may be effective barriers for the Leadbeaters Possum.

The Conservation Council of Victoria will be holding a self-guiding nature drive and meeting with speakers including Dr Peter Rawlinson, Chris Mitchell, and Greg Barber. See Coming Events (27 August) for details.

# Bushland invaders are on the march

By Cecily Falkingham\*

## Exploring our Habitat

Cecily Falkingham\* - another IFFA member - writes:

*"... our local Leader Group paper (the Nunawading Gazette) runs a double-page spread on environmental news once a month. Alan Reid, a well known environmental educator/naturalist and myself approached the paper in late 1988 offering our services. This offer was accepted, and we have been busily writing away and illustrating our articles on a monthly basis ever since.*

*The pages are called Exploring our Habitat and they usually include one or more short articles on a particular animal and one on a controversial global or local environmental issue. The last three of these I have written and have been about: Fire in urban bushland reserves, my old hobby horse - environmental weeds, and the latest one was on the effects of freeways or arterial roads on our local flora and fauna.*

*Most of the articles, depending on space, have had illustrations large enough for children to colour, cut out and keep. The idea of the illustrations is not only to draw attention to the articles but to educate the public to the physical appearance of the animals that we write about. Perhaps you could call it a bit of PR for the animals.*

*I think you will agree that it is quite a breakthrough for a local paper to place so much emphasis on the environment. I am now trying to encourage the papers owned by Leader, circulated in Ringwood/Croydon, Doncaster, Glen Waverley and Lilydale, to publish at least some of this work Alan and I are doing."*

Most people would probably agree that one of the great joys in life is to create a garden.

Plants, whether found outside Australia (exotics) or natives are fascinating, sometimes colorful, often perfumed, providing many challenges in our efforts to produce the right conditions of growth for them.

If we have made the decision to plant indigenous flora of our area, we usually find they need little encouragement to grow, provided we have not interfered with the local soil and conditions.

Unfortunately many plants have now become a real threat to our own native flora, both in suburban bushland reserves and in rural areas Australia wide.

We have all, I am sure, become the victims of Ivy (*Hedera helix*) or Wandering Jew (*Tradescantia fluminensis*) or plants similar to these taking over our gardens. They may have started off in pots, grown too big, then when planted out into the garden they romped over our favourite plants.

Most of the plants that have become serious environmental weeds come from outside Australia and from countries with a similar climate to our own. But many of these weeds are Australian plants.

Some of the worst hit areas are bushland reserves here in the suburbs. The plants' methods of seed dispersal are many and varied: the blackbirds are the main culprits for spreading blackberries, and other seed eaters spread sweet pittosporum, cononeaster, smilax

and the dreaded boneseed. The birds void the seed over a wide range, and consequently some of our most beautiful forests, roadside reserves, state and national parks and local bushland reserves are infested.

Another way in which weeds are spread is by garden refuse dumpers. "Lets wheel the weeds and lawn clippings over here, it's just a patch of scrub". The plant species that spread this way are English Ivy, Wandering Jew, exotic weedy herbs and grasses, Monbretia, Watsonia, Cape Ivy or Ivy Groundsel, holly, periwinkle, oxalis and many more.

### Opportunists

Some of these plants reproduce vegetatively, which means that even small pieces of plant material can produce roots when making contact with the soil. Some of these plants grow from corns (like tiny bulbs), and multiply rapidly through the soil.

Then there are the seeds that burst open tossing their seeds to the wind or metres from the plant, ready to colonize degraded or suitable areas. Many of these opportunists can survive in dimly lit shaded areas, and thrive under other weedy middle storey species, where native plants find it difficult to grow.

Many of the worst weeds can be found growing in suburban gardens adjacent to our parks and we don't have to look too far to see where the problems start. All plants sold in nurseries should carry environmental warnings along with planting instructions.

Leguminous plants such as

\*27 Chippewa Ave, Mitcham.

## **Bushland invaders are on the march** from page 11.

Gorse, Broom species and many non-local wattles are proving to be weeds and are extremely difficult to eradicate, especially after the recent spate of summer fires. All leguminous plants possess a hard seed coat over their seeds, so that not all seeds germinate, but after a fire, mass seeding usually eventuates.

What can we do to solve these problems? One: define your management objectives to avoid the introduction of weeds.

Two: it is desirable to have a knowledge of exotic and native weeds and some basic knowledge of indigenous plants.

Three: if you have trouble making identifications, find someone who can help you. There are many organizations willing and able to help. You could join the Indigenous Flora and Fauna Association, they are a very helpful group of people and always welcome new members (Secretary: Michele Arundell, 267 4173).

Buy or borrow a copy of "Bringing back the bush - The Bradley method of bush regeneration" by Joan Bradley. "Weeds of forests, roadsides and gardens" temporarily unavailable, printed by Friends of Sherbrooke Forest and the Dept. of Conservation, Forests and Lands.

Another excellent publication is "Mount Evelyn's original garden: plants of the northern Dandenongs". For a copy of this book contact P.O. Box 101, Mt Evelyn 3796.

To learn more about local plants, you could join one of the many "Friends" groups, your local council can give you a contact number.

Mr Geoff Carr, a leading ecologist, has this to say: "The main threat to our environment facing us at the moment is environmental weeds".

I feel that it is our responsibility to learn more about our local indigenous plants if we want a healthy ecosystem that supports a multitude of native fauna and flora that most of us enjoy.

**This article has been reprinted from the Nunawading Gazette.**

## **The genus oxalis in Victoria** continued from page 5

(preferably total) removal of underground parts (e.g. *O. corymbosa* also forms numerous easily dislodged new bulbils on old rootstocks). A container (e.g. cloth bag or bucket) for immediate placement of fragments is essential, to avoid further dispersal of plants. Further information on weak spots in the biology of these species, and its application, are required, particularly around the urban fringes where new infestations frequently follow those socially conscious peoples who compost any nearby bushland remnants with the weeds from their nice tidy gardens.

### **References:**

- Beauglehole, A.C. (1980) 'Victorian Vascular Plant Checklists- 13-Study Area and 24-Grid Distribution'. (Western Victorian Field Naturalists' Clubs Association, Portland)
- Black, J.M. (1977) 'Flora of South Australia, 2nd. edn.'. (Govt. Printer, South Australia)
- Carr, G. and Yugovic, J. (1988) 'Weeds of Native Vegetation in Victoria'. Interim list. Land Protection Division, Department of Conservation, Forests and Lands.
- Forbes, S.J. and Ross, J.H. (1988) 'A census of the Vascular Plants of Victoria. 2nd. edn.'. National Herbarium of Victoria, Public Lands & Forests Division, CFL.
- Lourteig, A. (1979) *Phytologia* 42: 57-195.
- Parsons, W.T. (1976) 'Noxious Weeds of Victoria'. (Inkata, Melbourne).
- Symon, D.E. (1961) The species of *Oxalis* established in South Australia. *Trans. R. Soc. S. Aust* 84: 71-77.
- Thompson, J. (1982) *Oxalis* in Australia. *Aust. Syst. Bot. Soc. Newsletter* 32: 4-6.
- Willis, J.H. (1973) 'A Handbook to Plants in Victoria, Vol. 11, Dicotyledons'. (Melbourne University Press, Carlton).

### **Degrading Processes in the National Estate**

The Victorian National Parks Association has received funding to employ a project officer part time for a year or full time for 6 months to identify processes that could degrade National Estate values, to survey registered and nominated national estate areas in Victoria for such processes, to undertake closer examination of processes identified as having significant effect, and to propose management to ameliorate the effects of identified degrading processes and to assist public education to this end.

If you are interested in the job or the project, leave a message for Jenny Barnett at the VNPA (03) 6546843.