

INDIGENOTES

See page 9 for the related book review.

From the Editor

New Column

I've also had requests to start a question and answer column. The idea seems to revolve around asking key questions about indigenous flora and fauna and its restoration and getting readers to contribute short answers about some of their experiences. The idea is get some of the basic information collected by individuals in informal ways, work programs, casual observation, etc., out and about and out of people's heads. The column will work with lots of small contributions so please contribute if you think the idea is worthwhile.

The first question has been proposed by Lisa Pittle and it is: **What about Sweet Vernal Grass? How can we control it in bushland?**

Some background.... Sweet Vernal Grass (*Anthoxanthum odoratum*) is a very common pasture grass that readily invades many vegetation communities. It often grows in close association with many native grasses and herbs in the grassy understorey of the diverse vegetation types it invades. Dispersal mechanisms include animals, water and wind and it seems to readily invade relatively undisturbed bushland, both in an invasion front and through scattered individuals.

So, please write any of your experiences and theories down and send them in to the Indigenotes post box.

Apologies

I don't know how many people noticed the smaller print in last month's edition of Indigenotes. A technical error in the desktop publishing program gave the edition a smaller font and I didn't realise it until it was too late. I hope the smaller print didn't ruin anyone's reading pleasure.

Call for Graphics

I must also apologise for the lack of graphics in last month's edition. I had plenty of written info (please keep it coming) but little fresh graphics. I do want them! It does seem that the people who write do not tend to draw and the people who draw don't tend to write. I have no illusions of bringing the two types together. However, it would be great if some of you graphic artists out there would simply draw selections of your local flora and fauna (both large and small, for covers and columns) and I'll put it together with appropriate articles or snippets. I've been getting lots of promises but little paper...please send some graphics and even

photographs in to liven up the newsletter.

Coming Events Info

Jo Ferguson is doing a great job with Coming Events but she needs help. Jo is not nearly as familiar with all the groups and activities happening as Dimi Bouzalas was after years of work on the column. The newsletters and calendars don't seem to be flowing as much as they used to. Please make sure any events that you want included are sent to the Indigenotes Post Office Box (see back cover). Feel free to give Jo a ring if that's easier, too.

Correction

In the last issue of Indigenotes there was an error in the article on Red Grassy Woodlands Southeast of Melbourne. The Common Spadefoot Toad was listed as *Neotrichus pictus* and it should have been *N. sudeli*.

The Dandenong Police Paddocks Reserve

By Greg Bain

The Dandenong Police Paddocks Reserve is a large area of land situated on the southern edge of the City of Knox, but is primarily within the City of Berwick. It is adjacent to Churchill National Park, and links the Lysterfield Hills with Dandenong Creek floodplain. As such, it is an important open space and conservation link between these two existing park systems. Unfortunately, for many years this area has been regarded as wasteland, but in reality the area is important both in terms of it's remnant native vegetation and it's human history.

I will briefly introduce the human history of the reserve, although it is so detailed and interesting that I would urge anyone interested to read the facinating reports compiled by Dr. Marie Hansen Fels, published in 1990 by DCNR and the Victorian Archaeological Survey.

The site was used predominantly by the Baluk-William clan of the Wurundjeri, although other clans would have used the resources of the Dandenong Creek. In 1837, the Victorian Government initiated the establishment of an Aboriginal Police Force. It was not until 1842 that the Native Police corps based themselves in the Police Paddocks. Over 140 Aboriginal men from all over Victoria enlisted in the Corps before it's demise in 1853. It has been hypothesised that this police force was one of the main reasons behind the lack of conflict between Aboriginal and European populations in Victoria compared to other states of Australia at the time. A native police cemetery is believed by some people to be on the site, but has not been located.

After 1853 the site was used by the Victorian Police as a horse stud, as well as a place to house Queensland blacktrackers brought in to search for Ned Kelly. The Police were so impressed by the blacktrackers that they stayed in the Police Paddocks until the 1930's. Since that time, the reserve has been declared public open space, and unfortunately has had virtually no management.

The Police Paddocks have been severely degraded by unthinking rubbish dumpers and off-road vehicle drivers, but still has a lot to offer the nature and history enthusiast. The main attraction of the Police Paddocks is the variation in vegetation type and hence, in the fauna present. Woodland, Swamp Paperbark scrub and sedgeland areas are all present and in fairly good condition.

With proper management, they can be improved, protected and serve as reminders of a landscape that was once common throughout the outer eastern suburbs of Melbourne.

The dominant tree species found in the Police Paddocks are Narrow-leaf Peppermint (*Eucalyptus radiata*), Yellow Box (*Eucalyptus melliodora*) and Silver-leaf Stringybark (*Eucalyptus cephalocarpa*). Yellow Box in particular is a magnificent tree in this area, and some huge specimens can be found. Black Wattle (*Acacia mearnsii*), Blackwood (*Acacia melanoxylon*) and Lightwood (*Acacia implexa*) are also common small trees. Other vegetation worth noting includes Tall and Tassel Sedge (*Carex appressa* and *C. fascicularis*) sedgeland bordered by thick stands of Prickly Currant Bush (*Coprosma quadrifida*), Tree Violet (*Hymenanthra dentata*), Burgan (*Kunzea ericoides*), Prickly Tea-Tree (*Leptospermum continentale*) and Clustered Pomaderris (*Pomaderris racemosa*). These stands are extremely thick and support a very sparse ground flora which includes Hedgehog Grass (*Echinopogon ovatus*) and at least one uncommon orchid species.

Birds of all description are found in the Police Paddocks, ranging from waterbirds in the floodplain zone to the bushland birds in the north of the reserve. Personal favourites include the Mistletoe Bird (*Dicaeum hirundinaceum*), Yellow-tailed Black Cockatoo (*Calyptrorhynchus funereus*), White-eared Honeyeater (*Lichenostomus leucotis*) and some very spotlight friendly Owllet-nightjar (*Aegotheles cristatus*). One very important and rare bird that has been recorded in the region is the secretive and majestic Powerful Owl (*Ninox strenua*). This bird is the largest owl in Australia, and is considered an endangered species. It's distinctive hooting indicates it's presence at night. This large bird (about 60cm high) is most likely to be a non breeding individual, possibly an offspring of the well known Ferntree Gully pair, (although recent reports indicate a breeding pair of Powerful Owl at nearby Lysterfield Lake Park).

The more inaccessible reaches of the Police Paddocks are a haven for other animals. Ringtail possums (*Pseudocheirus peregrinus*) and brushtail possums (*Trichosurus aculeatus*) are common and sugar gliders (*Petaurus breviceps*) are also present. I once had a Sugar Glider glide 20 meters from a large Swamp Gum (*Eucalyptus ovata*) over my head to a stump behind me. To experience this in

an urban setting is a fantastic experience, and it is up to all of us to ensure that important, feasible conservation areas such as the Police Paddocks are protected so that our native fauna has a chance for survival. Local extinctions in the Police Paddocks within the last two decades may include the Southern Brown Bandicoot (*Isoodon obesulus*) and the Wombat (*Vombatus ursinus*). I have included a fauna list of species that have been recorded in the reserve in recent times.

Things are slowly getting better for the Police Paddocks. A management plan was released last year and initial works have begun. Despite insufficient flora and fauna survey in the reserve, the Committee of Management is aware of its biological values. We have to hope that this is a high

priority on their long list of improvements in, and protection of, the reserve. If you want to know more about the Police Paddocks, visit during the day. Management plans can be obtained from the DCNR Dandenong (phone (03) 7067000). The Committee of Management can be contacted at P.O. Box 550 Dandenong 3175, or by phoning (03) 7971555. We are currently in the process of forming a “Friends of the Dandenong Police Paddocks” and if you are interested in that, you can ring me on 801 3140.

Greg Bain
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Wantirna South 3152

Snippets: Section 1

New Mining Legislation

Friends of the Earth are calling for support in action to stop or delay the Mineral Resources Development (Amendment) Bill. It is the belief of Friends of the Earth that proposed changes to the legislation will adversely affect native flora and fauna by making the process of mining exploration more available ('fast tracking' mining operations). Less opportunity for public input into the planning of new mining projects could also result. Many areas of ecological importance will not be protected from mining exploration. Remaining protection (the Flora and Fauna Guarantee Act) will not be adequate.

Exploration will be an "as of right" use requiring only Department of Minerals and Energy permission, that is, no permit will be needed through the planning process, completely removing exploration from the normal planning procedures.

The Conservation and Natural Resources Department will have no right to refuse unsuitable operations or to set conditions on Crown Land which has been categorized as 'unrestricted' (around 50% of Crown Land).

What you can do: Obtain further information from Friends of the Earth on (03) 419 8700 or from Jenny Barnett at the Victorian National Parks Association on (03) 6508296

Then contact your local Members of Parliament. Write to them and to the Planning and Development Minister, Mr. R. McLellan, 477 Collins St., Melbourne 3000; the Minister for Minerals and Energy, Mr. J. Plowman, 176 Wellington Pde., East Melbourne 3002; and the Minister for Natural Resources Mr. G. Coleman, 240 Victoria Pde, East Melbourne 3002.

What to say? Make it known that you object to the speedy introduction of amendments to the Mineral Development Act without public scrutiny and comment. Ask them to call for the Bill's withdrawal pending community consultation.

Make your objection known to 'as of right' exploration and any reduction in community participation avenues related to mineral exploration and mining.

Express your concern about the changes and their effects on adequate environmental assessment for exploration and mining.

Keeping the Bush in Our Backyards

This new booklet produced by Context Pty. Ltd. for the Conservation Council of Victoria provides ideas for local groups to encourage, in their community, a greater awareness and understanding of the values of our bushland. This attitude change in the wider community is essential if an individual's or group's efforts for nature conservation are to have a lasting effect.

The 32 page booklet provides ideas for community education activities, and suggestions for setting up and maintaining an active local group. The approaches outlined can be adopted by existing groups such as residents associations, conservation societies, naturalists clubs, schools, youth groups or municipal councils. Or a new group can be established specifically with the aim of creating a community climate of valuing and caring for native vegetation.

Berwick-Pakenham Bushcare was set up as pilot project to serve as a learning experience and model for other communities. Much practical and managerial experience was gained through this project and is shared in the booklet.

Copies of "Keeping the Bush in our Backyards: Encouraging your local community to protect remnant vegetation" can be obtained for \$7.50 per copy, posted.

Please enclose payment, your name and address, and send to:
Context Pty. Ltd.
Box 193, West Brunswick, 3055
Tel. (03) 380 6933, Fax (03) 380 4066

New Grasslands Friends Group

Some beautiful grasslands in the City of Broadmeadows have found some new friends. Several local residents have formed the **Friends of Broadmeadows Natural Grasslands** to raise the awareness of local people and anybody else to the value of their local grassland remnants. Word has it that the grasslands are beautiful at the moment and if you want to see them they have organised a walk on October 31st at 11:00 am. Contact April Willinski on (03) 309 0595 or Nick Graesser at the City of Broadmeadows offices for more information.

Coming events:

For IFFA events see back cover

Conferences/Workshops/Talks

- 28 Oct. **Water Pollution and Land Use in the Dandenong Valley.** A forum including representatives from Melbourne Water, the E.P.A., Residents Against Industrial Pollution and Bay Rescue will discuss the issues, causes, costs, and solutions to water pollution in the Dandenong Valley. Public participation invited and supper provided. Cost \$5/\$3 conc. Talks begin at 7.30 pm at Braeside Park Visitor Centre Mel 88 D8. Further info. (03)598 0078.
- 23 Oct- 11 Dec. 23 Oct- 11 Dec. **Local Indigenous Plants - Their Identification, Propagation and Benefits.** An Indigenous Horticulture Course run by the Arrabri Community Nursery. Seven sessions commencing at 10 am from Sat 23 Oct. Arrabri Community Nursery, Allambanan Drive, Bayswater North. Mel 65 B1 Contact Greg Bain (03) 720 3778.
- 25-29 Oct. **Childrens week.** This will involve school children in a series of activities and experiences based on Aboriginal culture. Ralph Nicholls from the Bwung - Gul Culture Groups will take the children through the Aboriginal way of life with demonstrations and hands on activities. Prep to Grade six. Cost 2\$. Jells Park, Mt Waverly. Ph (03) 561 4522.
- 26 Oct. Tues 8pm. **Status of the Endangered Red Tailed Black Cockatoo in Western Victoria.** Bill Emison, a research officer at Arthur Rylah Institute will give an interesting update on its current status. Part of a meeting of the Fauna Survey Group of the FNCV. National Herbarium, Birdwood Ave, Sth Yarra.
- 30 Oct. All Day **Sites of Natural Significance workshop.** Macclesfield and Yellingbo. Managing your property - An opportunity to visit other nearby properties. For more information contact Jenny Francis on (03) 755 1398.
- 3 Nov. Wed. 7.30-9.30pm. **The vegetation of Corio Bay and tributaries then and now, revegetation and landscape opportunities.** A slide presentation by Mark Trengrove of the Geelong Indigenous Nursery. National Wool Museum cnr Brougham and Moorabool St, Geelong. \$6 employed, \$4 conc. Bookings (052) 222 936, Trish Edwards.
- 4 Nov. 7:30 pm **Mabo and the Value of Water and Land.** Gary Foley, Koorie activist and naturalist Bob McDonald explain the link between the Mabo High Court Decision and the economic value of water and land - night includes spot light walk in Braeside's remnant heath and woodland, and supper. Braeside Park Visitor Centre. Mel 88 D8. Cost 5\$/\$3 conc. Further info. (03) 598 0078.
- 11 Nov. Thursday 8pm. **Grasslands.** John Morgan is currently researching the floral of the Western basalt plains grasslands. Part of a meeting of the

Botany Group of the FNCV. National Herbarium, Birdwood Ave, Sth Yarra.

- 20 Nov. 11am-5pm. and 21 Nov. 10am-5pm. **The South Gippsland Wildflower Show.** Floral Displays, Plant Sales, Environmental displays and Children's activities. Adults \$2. Gippsland and Northern Saleyards, South Gippsland Highway, Koonawarra. Contact Barry Hill (056) 643 259.
- 24 Nov. Wednesday 8pm. **Volcanoes and volcanic action.** Professor Ray Cass will speak as part of a meeting of the Geology Group of the FNCV. National Herbarium, Birdwood Ave, Sth Yarra.
- 5 Dec. **The Romance of Rat Kangaroos and Potoroos - Prehistoric and Present.** Listen to this fascinating talk by John Seebeck, a wildlife biologist at the Arthur Rylah Institute. Organised by the Fauna Survey Group of the FNCV. 8pm at the National Herbarium of Victoria, Birdwood Ave, Sth Yarra.
- 6-9 December. **Australian network for plant conservation 1993 conference.** Papers and workshops covering endangered species, germplasm storage, databasing, funding and education. Contact Australian Network for Plant Conservation, Australian National Botanic Gardens, PO Box 1777, Canberra, ACT, 2601.

Excursions and field trips

- 30 Oct-2 Nov. **Camp/Fauna Survey at Wilson's Promontory** organised by the FNCV. This camp is part of a continuing seasonal survey of fauna in four post-fire sites of different ages. Contact Russell Thompson (03) 434 7046 for details.
- 30 Oct - 2 Nov. **Great Southwest Walk.** Portland. A walk organised by the VNPA. Start and finish at Portland. Some outstanding coastal scenery with a variety of flora and fauna. Contact Elayne Asdagi (03) 460 8208.
- 31 Oct. 10am. **Euroa Environment Group's Wildflower Walks. Torour Rock Slabs and White's Rock.** Hidden in the Strathbogie Ranges are some really delightful jewels - granite rock slabs which provide the perfect microclimate for a multitude of beautiful shrubs and moss beds with sun orchids and minute daisies. The walking is quite easy on gently sloping terrain. Meet at the rear of Euroa Secondary College. Contact Ray Thomas (03) 628 2373(w).
- 31 Oct. **Mornington Peninsula.** Walk one of the Peninsula's green link corridors, Chinaman's Creek - Tootgarook Swamp - St Andrews with Stephanie Rennick (03)578 1679. Organised by the VNPA.
- 6 Nov. **Club Excursion - Mosses, Lichens and the Massive Ada Tree.** Join Arthur Thiess to look for mosses, lichens and the giant Ada Tree near Powelltown, an hour and a half from Melbourne. The bus departs from Batman Ave near St Kilda Rd in the City at 9 am. An FNCV excursion. Contact Dorothy Mahler for details on cost on (03) 435 8408.
- 7 Nov. **Walk, Talk and Gawk: Merri Creek.** This longish but easy day walk starts at Coburg Lake and ends at Dights Falls. We will observe one of

Melbourne's most extensive bush regeneration projects. Contact: Geoff Durham (03) 523 5559.

7 Nov. Sunday **Evans Street Grassland Walk**. Organised by the Sunbury Conservation Society. Meet at Evans St., Sunbury at 1 pm.

8-9 Nov. **Catchment and Land Protection Act - Legislating for Catchment Management**. A two day conference presented by the River Basin Management Society. The conference will review results of past public consultation into the Draft bill and compares the proposed Victorian legislation with other states. This is a major opportunity for organisations and the public to have input into this legislation. Have your say! Monash Uni Clayton Campus. Cost \$65 for 2 days. Discount for sponsor organisations. Contact Ron Hodges (03) 802 4859. Fax (03) 802 2315.

13 Nov. **Angahook - Lorne S.P.** A circular walk that will take in one of the most picturesque treefern gullies and hidden waterfalls. Some short climbs and steep down hills, including river crossings and rock hopping. Contact Gudrun Frese (03) 888 8306.

14 Nov. **Euroa Environment Group's Wildflower Walks. Warrenbayne State Forest**. This large area of undisturbed forest is partly on granite and partly on older sedimentary rock, so there is a tremendous variety of forest types and wildflowers. The common fringe lily really is common here! Meet at 10am at the rear of Euroa Secondary College. Contact Ray Thomas (03) 628 2373(w) or Shirley Saywell (057) 952 300(w).

20 Nov. **Leadbeaters Possum Stag Watch**. Part of continuing survey work of the Fauna Survey Group of the FNCV into the full habitat range of this highly endangered species. Contact Ray Gibson (03) 874 4408.

Restoration Activities

October

23 Sat. 10.00 -12 noon. **Sandringham Community Nursery volunteers**. Propagation and planting activities every Thursday and Saturday. Sandringham Council Depot Talinga Rd/Reserve Rd. Contact Lisa Carty (03) 584 5255.

31 Sun 10am. **FO Royal Park West**. Working day. Planting, direct seeding and weed control. Contact Mick Arundall (03) 380 8075.

31 9 am. **FO Buckley Falls**. Project day planting the river slopes below the quarry in the area of cleared plum trees last year and around small Western quarry, subject to weather conditions. Contact Tony Woolford (052) 436 340.

November

6 Sat. 10 am **Green Link Box Hill activity day**. Working activities every Monday and Tuesday morning at the council nursery in Nelson St, Box Hill. Contact Minette Russell Young (03) 898 1364.

7 Sun. 2-4pm. **Gramatan Ave Heathland Sanctuary Beaumaris**. Handweeding in area burnt late March. Contact Lisa Carty (03) 584 5255.

13 10-noon. **Wurundjeri Garden**. This Koori food garden by the Yarra in Hawthorn has been established for three years. Planting and weeding. Contact Dorothy Sutherland (03) 818 4706.

14 **Green Link Camberwell**. Weeding, planting and seed collection in Welfare Pde. Meet at the corner of Dion St and Welfare Pde ME1 60 E7. Contact Dianna Burgess (03) 809 2092.

14 Sun 10 am. **Meander...a group caring for the Menzies Creek and Emerald Tourist Track** including weeding, planting and track work in the creek Reserve. Meet at A'Vard Picnic Ground. Melways 125 F 12. For further details contact Kate Forster (059) 685 828

14 10am. **URAGE (Upwey Regional Action Group for the Environment)**. Project day. Weeding of ivy, blackberry and Tradescantia and planting to restore indigenous vegetation along Ferny Creek, Upwey. Meet at the corner of Deans and Morris Rds, Upwey. Mel 74 k12. Contact Rob Stevens (03) 754 3792..

15 10am-12 noon. **Brunswick Tree Group**. Moonee Ponds Creek. Eric Ward 388 2123.

20 Sat 9.30am. **FO Werribee Gorge & the Long Forest Mallee**. Project day. Vic Flora Nursery Macedon. Tree pricking out in the morning and tour of the nursery in the afternoon. Janet Leversha (053) 67 4229.

21 Sun 10 am. **Men of the Trees**. Deep Rock, Yarra Bend Park; Melmap 2D, ref D6. Minette Russell Young 898 1364.

21 **Wildlife Watch Inc. Butterfield Reserve, Emerald**. Continuing work along the Monbulk Creek. Mel 125 F6. Contact Barbara Bloom (03) 755 1071 (w).

21 Sun 10 am. **FO Wright Forest and Wattle Creek. Bird walk**. Inspection of work done under LEAP scheme. End of year barbeque and spotlight walk. Contact Dudley Gross (059) 684 780.

The 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 get in touch with Jo Ferguson (see back cover).

Environmental Weed Notes:

Beware our endangered Oxalis?

Although not yet endangered the indigenous *Oxalis* species may have the potential to attain this status.

Oxalis has a terrible reputation among both gardeners and bushland workers as an extremely aggressive invasive weed which is very difficult to eradicate.

Like most bush regenerators I have been doing my fair share of spraying of *Oxalis* over the last couple of months and like all sprayers I had time to ponder on the meaning of life while performing this onerous task.

Whilst pondering and spraying two thoughts occurred to me, did the many other sprayers in bushland areas across Melbourne recognise that:-

1. Native *Oxalis* species exists?
2. Are they aware of the differences between the indigenous species and the weeds?

A quick check with my co-workers revealed that all of them knew the indigenous species existed however only 25% had any idea of the differences between the weeds and the indigenous species.

The most recent key available is in [The Flora of New South Wales Volume 3](#) and this describes the five indigenous species native to New South Wales plus most of the weedy species that are likely to be encountered in South Eastern Australia. This volume was published in 1992.

I have the same problem with keys most people have but the *Oxalis* key is relatively straight forward and easy to understand.

[The Flora of Melbourne](#) lists three species as being indigenous to the Melbourne area (all three are covered in the [Flora of N.S.W.](#) with full botanical descriptions) and gives good descriptions of each along with details of habitat etc.

In the field while fully kitted with a 15 litre spray pack, suit and mask, only the minimum required amount of time can be spent on plant identification. I have two quick visual guides to distinguish between weedy *Oxalis* and the native *Oxalis*:

1. Is it a small plant that appears to be in bal-

ance with its surrounding indigenous species?

2. Does it have a reddish/purplish tinge to its dark green leaves?

If the plants meet either of these criterion I leave them alone, regardless of the size of the colony.

Assuming more time is available I check the hairs on the stem to see which way they are pointing, up or down. If they are pointed up there is a good chance it's not a weed. If they are pointed down it is possibly a weed. One of the indigenous species (along with most of the introduced *Oxalis*) in the Melbourne area has hairs on the stem which are pointed down or spreading while the other two indigenous species have hairs which are pointed up. To make any sense of the indigenous *Oxalis* and the similar weedy *Oxalis* which both have hairs pointed down, an examination of the seed case is needed. If these seed cases are not present I leave the plant alone.

Another quick test is the presence or lack of aerial stems. All of the native plants have the potential for aerial stems. These stems can be upright, they can take the form of runners through surrounding grasses or herbs or runners along bare ground. At least four of the non indigenous *Oxalis* also have these characteristics so this test should be combined with other checks. It does at least narrow down the choices.

Flowers can be an indicator but are generally not flowering when needed.

Roots or their lack of can also be used but it would be senseless to pull out the plant to find out whether it should be left alone.

This is my interpretation of several keys. If you differ or wish to add any other tips please let me know - indigenous *Oxalis* deserves a better fate then it may currently have.

I do not know for sure that people are spraying indigenous *Oxalis* but my guess would be that they are.

- **Clive Gordes**

Book Review:

A book on dragonflies and damselflies.

Reviewed by Patrick Driver

Freshwater ecology and ecological studies on invertebrates with little economic significance often suffer a low public profile. Watson *et al* (1991) and its subject material, Australian adult dragonflies and damselflies (Odonata), are ideal for bringing further attention to a one of the wallflowers within both these fields. It is a technical book that is written so that it can also be understood by non-professionals.

Watson *et al* (1991) have filled a large void in the literature concerning Australian Odonata in their presentation of a large amount of compiled, as well as recently researched, knowledge on taxonomy, species distribution and habitat. The study of dragonflies should need no justification. However, as they are not well known, some of their appeal for humans should be spelt out.

Firstly, as Watson *et al* 1991 states some species can be informative about the quality of freshwater communities. Odonata are also ideal for field naturalist jaunts. Dragonflies (suborder Anisoptera) and damselflies (suborder Zygoptera) have an enigmatic appearance and consequently attract strange names such as horse stingers, darners and even helicopters. Being relatively large for an invertebrate and displaying a myriad of colours and patterns, they have also been described as the 'birdwatchers insect'.

Consider the English poet Tennyson's observations "Thro' crofts and pastures wet with dew—A living flash of light he flew". Like birds the adults of different species are identifiable in the air and these different species often display characteristic behaviours (e.g. flight patterns and guarding territories of different sizes and shapes).

There are also conservation concerns. Better researched Odonata fauna overseas tend to display a pattern of localized extinctions in more ecologically sensitive species due to habitat destruction and pollution (Dumont 1971, Moore 1976, 1980, Corbet 1980, Pyle *et al* 1981, Watson *et al* 1982, New 1984, Hill and Michaelis 1988, van Tol and Verdonk 1988, Anon 1989, Samways 1989, Moore 1991, Watson *et al* 1991).

Former works on Australian Odonata such as Tillyard (1917) and Fraser (1960) are very out of date with respect to the number, and the descriptions of currently recognised species. Watson *et al* (1991) have revised these and with extra and extensive original research have now provided an

up to date key for 301 (out of 302 possible) Australian adult Odonata which is easier to follow and provides explanation for most (but not all) of the terms used. The early chapters provide useful introduction and discussion. They outline general biology and conservation, new taxa, a glossary to the key and also a guide to the regions and habitats the species are assigned to.

Some of this is fascinating reading. It includes behavioral and physiological adaptations of Odonata to extremes such as deserts. I also found the discussion on specialised habitat preferences in some species suggestive of even more interesting studies to come.

The information on each species is limited to the essential biological information for species identification. This mostly includes using morphological characters such as wing venation, the shape of genitalia and patterns on the thorax and abdomen.

There is little or no information on variation in body colours within species, descriptions of behaviour, flight periods and detailed distribution data. Only broad distribution data is provided with species belonging to one of sixteen regions (e.g. Victoria, Tasmania, Arid inland Australia!). Species are also associated with particular habitats (e.g. rivers, streams, still pools). The 56 photos of individual species are of brilliant quality. Fraser (1960) can provide some of this excluded ecological information but

cannot not be relied on for accuracy. It is difficult not to make comparisons with other books with more ecological detail on each species. However, because of the number of species, and also the current state of knowledge, it would be unreasonable to expect beautiful pictures and detailed ecological descriptions for most species as is found in 'The Dragonflies of New Zealand' (Rowe 1987) or in Miller's (1987) book on the British Odonata fauna. Hopefully, regionalised (e.g. Victoria, Cape York) and more detailed books are in the pipeline.

Watson *et al* 1991, although mostly concerned with identifying individual species, enables further observation which should lead to further understanding of important aspects of biology such as individual habitat requirements, life histories and conservation priorities. Although very colourful and informative, this is a not an easy to follow field naturalist handbook as Pizzey's (1980) book is for Australian birds. I would suggest

having a good look through Watson *et al* (1991) with also Rowe (1987) and Miller (1987) close by, as this new book could be a start to a readers prospering interest in the natural history of Odonata.

Watson *et al* (1991) is available at the CSIRO bookshop, 314 Albert St. East Melbourne at ca. \$60. Miller (1987) and Rowe (1987) are at least available in the La Trobe University library).

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Snippets: Section 2

Eltham Pest Plant Local Law

As most people will be aware, pest plants are invading bushland, waterways, roadsides and reserves and degrading both the natural and developed environment. In an attempt to slow and halt this problem, the Shire of Eltham has developed an integrated approach to pest plant management. With the adoption of the Pest Plant Management Strategy in 1992, the Shire is using education, policy development, community involvement, action and legal enforcement to raise the profile of pest plant management within the community.

As part of this approach a community based sub-committee facilitated by the Shire of Eltham has been working for the past 18 months considering issues to be addressed through a Pest Plant Local Law. The Pest Plant Local Law Working Group has released a discussion paper which summarises the outcome of their considerations.

Approaches are being developed in recognition that it is crucial to address the source of pest plant introduction if we are to reduce the current and future infestation of pest plant species. In doing so it is also anticipated that the seriousness of the selected plants will be raised within the community and encourage an overall co-operation in control of these species.

The discussion paper presents a proposal which identifies two categories of Pest Plants:

Category 1 - Prohibited Pest Plants

Plants in this category have demonstrated ability to invade and degrade bushland, waterways, roadsides or agricultural land. These plants are not to be sold in any form within the Shire of Eltham. These plants are prohibited on all land within the SHire and Council will enforce removal of these plants over the next 10 years.

Category 2 - Pest Plants

These plants have also demonstrated degradational abilities in bushland or agricultural land, but their invasiveness is limited by one or more factors. Plants in this category may only be sold with an approved label supplied by Council, highlighting the plant degrades bushland and waterways.

Of the 350 pest plants identified within the Shire, just over one quarter are to be addressed through the Local Law.

The remainder will be addressed through other techniques, including education and increased public awareness to promote identification and control.

The Local Law is considered to be one of the many tools to be used to address the Pest Plant problem, and where possible will be used as a last resort where other approaches have failed.

The discussion paper is currently available from the Shire of Eltham and comments should reach the Shire by the 9th of November. The address is: Pest Plant Local Law Working Group
Parks and Environment Department
P.O. Box 21
ELTHAM 3095

There will also be two public meetings held on the 21st and 24th October, in Eltham and St. Andrews respectively, to provide people with the opportunity to discuss the proposal with the Pest Plant Local Law Working Group. For this proposal to be successful it is crucial that community support is achieved and any feedback, whether critical or positive will assist the successful development of this approach. For further information contact Marianne Henderson, Land Protection Officer on (03)430 1145.

Extinct Animals?

The Long-tailed Dunnart was believed extinct in the Northern Territory until one was recently found in a bottle. Last year the Pygmy Blue-tongue Lizard, which had not been recorded since 1959, turned up inside the stomach of an Eastern Brown Snake in South Australia.

Source: On the Brink June 1993

New Moth Species

Members of the Tantawangalo Catchment Protection Association in southeastern NSW have recently discovered 2 new species of moth. The discovery was made while trying to locate koalas by searching out droppings. Every dropping looked at had a caterpillar in it. Another intricate strand in the ecological web.

Source: Canberra Times 23-5-93

Catchment and Land

Protection Act - Legislating for Catchment Management

A two day conference for Landcare members, farmers, Landowners, Council engineers and planners, Water Authority and State Agency personnel and everybody else with an interest. The points to be considered:

- To review the results of public consultation and input into the Draft Bill - have we got it right?
- Discussion on how the proposed Victorian legislation compares with other states - can we learn from them?
- Discussion on getting the mechanisms right - ensuring it will work.
- A major opportunity for organisations and the public to input to this legislation - broad input is vital to the successful development of an integrated approach.

Come have your say! This conference will be an official component of the program for the Catchment Land Protection Act legislative process. 8-9 November, 1993 Monash University, Clayton Campus

Cost: \$65 for two days - discounts will apply for sponsor organisations. For further information or to order your brochure phone Ron Hodges, River Basin Management Society Treasurer, on (03) 802 4859 or Fax (03) 802 2315.

IFFA has produced a submission on this important legislation; if you would like to see a copy please contact Dale Tonkinson. We are urging IFFA members to be involved in this conference, and the issue in general, because of how this legislation concerns several issues close to our hearts, pest plants and environmental weeds, the concept of integrated catchment management and the relationship between land degradation and the destruction of indigenous flora and fauna. The draft legislation will be presented to Parliament this spring and tabled until Autumn session; the Government has decided, inexplicably, this legislation deserves a lot of time for public input. Copies of the Discussion Paper should still be available from the Catchment and Land Protection Legislation Secretariat at DCNR, 5th Floor 250 Victoria Parade, East Melbourne, Ph. (03) 412 4705 or fax (03) 412 4388.

Chronic Debt and Mis-

management in Victoria's Forests

While the Victorian Government pinches pennies from vital community services, it continues to hand out millions of dollars to the timber industry. The figures which the Government supplied to the public showed a \$7 million loss during the 1991-92 financial year (with East Gippsland making the largest loss of all regions). Recent information obtained under Freedom of Information shows the deficit is actually \$10.4 million, while plantations made a profit of almost \$4 million.

Marry this loss with the recent Auditor General's report and an outrageous scenario is revealed. The report shows that native forest logging is not only running at an enormous loss but our forests are also being chronically mismanaged! Industry should not be in our native forests reducing them to chips at taxpayers expense while plantations remain under utilised. Thousands of Victorians are suffering under current "rationalisation" cut backs, yet millions of dollars continue to be thrown at this disastrous industry.

This is definitely one to sharpen the pencil for - write to Geoff Coleman, Minister for Natural Resources, 240 Victoria Pde., East Melbourne 3002. - Fenella Barry and Jill Redwood

Source: **Potoroo Review No. 136 Aug.-Sept. 1993**

Central Highlands Forest Camp

The Conservation Council of Victoria is running a camp over the Melbourne Cup long weekend from October 30 - November 2. It is a weekend to visit and explore the beautiful and threatened forests of the Central Highlands. Expert biologists will be coming along to lead walks as well many kindred spirits. The camp is located 1.5 hours from Melbourne at 'Camp Duncan' in the Central Highlands, close to Mt. Donna Buang and many natural attractions. Accommodation is BYO tent, with a limited number of bunk accommodation also available.

\$15 per night / \$10 if you stay 3 or 4 nights
\$20 per night / \$15 if you stay 1 or 2 nights
People 13 - 18, students and health care card holders at concessional rates. People 12 or under free! For more information or bookings contact: Amanda, Barry or Marie on (03) 654 4833.

Marine and Coastal Community Network

In 1991 the Federal Government established **Ocean Rescue 2000**, a decade long program to address the conservation and sustainable use of Australia's marine environment. This year funding was made available to establish the Marine and Coastal Community Network, whose primary role is to raise community awareness of marine and coastal conservation and management, and help generate a better understanding of the life support systems of our oceans and coasts.

Just as Landcare has triggered a greater knowledge of the inter-relationships between the land, forests, waterways and wetlands, so too do we need to understand the linkages between our catchments, waterways, estuaries, coasts and oceans. The Network is based on the principle that the concepts of Landcare are equally applicable to the ocean. This is **Ocean Care: wise use to ensure the long-term sustainability of our marine ecosystems, and protection of critical areas and species.**

Network activities include:

Contacts: The first priority of the Network is to contact the many groups and individuals who have an interest in marine and coastal issues and involve them in the Network. The Network is hiring Regional Coordinators based in Darwin, Perth, Sydney and Melbourne (Tim Allen is the Melbourne person based at the VNPA in East Melbourne) to ensure effective coordination at a regional level.

News Sheet: The Network publishes a newsletter approximately bimonthly to keep all participants informed of the Network's progress, upcoming events, recent publications, etc.. It will be seeking contributions so that it can become a forum for discussion.

Electronic bulletin board: We are currently working to set up a nation-wide computer bulletin to facilitate discussions on conservation issues and faster information sharing.

Feedback: One of the most important aims of the Network is to remain as responsive as possible to the needs of its participating groups.

The Network is seeking the involvement of all groups and individuals interested in ensuring that we have clean and healthy oceans and coasts. If

you are interested in being involved please send in your name, address, telephone and fax to:
Marine and Coastal Community Network, National Coordinator
P.O. Box 49 Moorooka QLD 4105
Tel. (07) 848 5235 Fax (07) 892 5814

LCC Marine and Coastal Investigation

This is the first major planning exercise being carried out along the coastline and inshore Victorian waters. The Land Conservation Council is calling for more information and data and opinions in response to its initial Descriptive Report. They recognise that it may be the first time groups and individuals have prepared submissions and are keen to get people's input. A few green groups met with them and discussed how little data we have on the marine environment, and issues such as crude oil, ballast water, fish habitat, ecotourism, and the need for for integrated catchment management, to make priorities to ensure estuaries are receiving water of increasing quality. The submission period has been extended to Friday 29th October 1993. Contact Don Hough or Hainia Bibrowska on (03)628 5142 or from the country 008 134 803 at the LCC for more information.

- **Karri Giles, Friends of the Earth**

Remnant Vegetation

Fencing Workshop

A workshop looking at practical fencing techniques for farmers and bush regenerators is to be held on the **6th and 7th of November, 1993**. Run by the Victorian National Parks Association, the weekend will also be used for setting up a volunteer fencing network for anyone interested in fencing and conserving remnant native vegetation.

Koonda Flora Reserve, a rare remnant of Green Mallee and White Box Woodland north of Violet Town will be the focus of the event, with the opportunity for some guided spring botanising.

At \$20.00 per head, including lunch, numbers are limited to 40. Get in quick by calling Carlie Sherwin at the Victorian National Parks Association, 10 Parliament Place, East Melbourne on (03)650 8296.

Alpine Ecology Course

Bogong High Plains 9-15 January

This is the six annual course designed for teachers, rangers and conservationists. It is an opportunity to learn about the plants, animals and soils that make up alpine ecosystems and their significance for land use and conservation issues in the Alps. The emphasis is on practical demonstration and field experience for all participants, most sessions are conducted in the field in small groups. Two days are set aside for individual projects to allow participants to apply the knowledge and skills they have learnt.

A detailed knowledge of botany, zoology and soils is not assumed - each session provides the basic knowledge needed to understand the topic. A set of course notes is also provided.

Participants are shown how to collect and interpret environmental information and use it to understand and appreciate the environment. The methods used can be applied to other areas.

Topics covered and sessions include:

- * soils, vegetation and land use in the the montane, sub-alpine and alpine zones
- * how to identify alpine plants and define vegetation communities - vegetation survey and mapping techniques
- * plant ecology and ecological processes in the alpine environment - the history and evidence of vegetation change - the effects of fire and grazing
- * methods for monitoring vegetation change and impacts of land use
- * the mammals, birds, reptiles and invertebrate fauna in the area and their role in the ecosystem
- * soil conservation and revegetation principles and practices in the alpine environment - the use of indigenous species in rehabilitation

Field exercises and projects will provide scope to study at least two topics in detail - to collect field data, compile and analyse the information and present the results in a seminar.

Evening sessions include:

- * tutorials and demonstrations of material studied in the field
- * discussions of land use issues - impact, control and planning
- * illustrated presentation on Australian alpine ecosystems by renowned nature photographer Colin Totterdell

The instructors are experts in their areas of research and are experienced in presenting field based courses. Frank Gibbons is a soil scientist who has studied many Australian and overseas soils. Keith McDougall and Neville Walsh are botanists who have surveyed and mapped the High Plains vegetation of Victoria. Dick Williams and Henrik Wahren are plant ecologists who have studied long term vegetation change on the Bogong High Plains. Martin Schulz and Ian Mansergh are animal ecologists whose interests embrace the fauna of the Queensland tropics and the sex life of Mountain Pygmy-possums. John Morgan, Warwick Pabst and Darren Wilson have developed and applied revegetation techniques in the Alps using indigenous plants.

Location: the course is based at Howman's Gap Alpine Centre, only 5 km below Falls Creek and the Bogong High Plains.

Course Fee: \$525 includes accommodation, meals, instruction, course notes and transport during the course. The course is limited to 45 participants.

Enquiries and applications:
Deidre Slattery - office and home (03) 4974043
Lyn Paul - DCNR Ph. (03) 4124560 Fax (03) 4124586

Applications close on November 8th.

N.B. An Alpine Rehabilitation Course will be held at Falls Creek from 21-25 February. Further details will be provided in another issue of Indigenotes.

IFFA activities:

IFFA (Vic)

Next meeting:

Tuesday 26 October at 7:30 pm at the Herbarium Hall, Birdwood Ave, South Yarra (Melways map 2G 12A). All welcome. **Member's Slide Night! Damien Cook** will open the evening with slides of **Jilpanger Scrub**, to warm us up for the field trip the following weekend. Any other members are welcome to bring a few slides of some special place or organisms to share with the meeting.

Please Note: All items of business raised in the General Meeting after the speakers will be limited to five minutes (additional information may be passed to members present on information sheets). All members are also welcome to attend any Committee meetings and raise issues for consideration.

Committee meeting:

Thursday 4 November venue to be determined. 7:00 pm onwards. Contact Dale for details.

SPIFFA

Mon Nov. 1 at 7:30 pm. Waterfall Gully Ctty Centre, Cnr Bayview Rd and Nixon St, Rosebud South. Subject: **Update on Biological Control of Bridal Creeper with Robin Adair**. Contact: Mark Adams (059)851 122.

IFFA Field Trip: Cup Weekend

There will be a field trip to Jilpanger Scrub, west of Horsham, on Cup Weekend, October 30 to November 2. Jilpanger is one of the last remnants of Desert Stringybark-Yellow Gum Woodland in the Wimmera. The local Flora and Fauna Guarantee Officer will be coming along as well as local naturalists. Contact Damien Cook, (03)543 8227, to get the map of where to meet and/or to arrange carpooling.

IFFA Field Trip No. 2

Saturday November 6, 10 AM **Red Gum Grassy Woodlands south-east of Melbourne**. Visit the most intact remnants of this endangered community. This tour will include visits to areas of Red Gum Woodland and swamp which should be carpeted with wildflowers and to some stands of ancient River Red Gums (some up to 6m in diameter). Contact: Damien Cook (03) 5438227 to make a booking.

IFFA (NSW) activities:

Next meeting:

Monday 1 November 7.30 - 10.00pm at the Maiden Theatre, Mrs Macquaries Rd, Royal Botanic Gardens Sydney. For meeting details please contact: Sally Fisher (02) 970 6486 or Penny Brown (02) 913 3681.

Contents:

<u>From the Editor</u>	2
The Dandenong Police Paddocks Reserve	
By Greg Bain	3
Snippets: Section 1	5
Coming Events	6
<u>Environmental Weed Notes:</u>	
Beware our endangered Oxalis?	8
Book Review:	
A book on dragonflies and damselflies	9
Snippets: Section 2	10

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Contributions to *Indigenotes* should be sent to the editors — the deadline for the next issue will be November 6.

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