

INDIGENOTES

A few old cartoons from Patrick Driver...still relevant.

Local Biodiversity Renewal: A Grass-root Fightback Proposition

By Don Hatton

While There's Life

Despite the onslaughts of the last two hundred years, the Melbourne flora and fauna of yesteryear with its rich and varied bushland, heath and wetlands, still retains a fragile presence. Not of course in its full glory with hillsides and plains alive with colour and an almost never-ending variety of tiny lilies, orchids, ground covers, grasses and shrubs to be discovered in every grove. But perhaps not so surprising considering indigenous biota resilience, much has survived in remnants scattered across the whole environs on private, public and commercial sites. Some rest in dormancy for years, others regularly provide a welcome reminder of our unique heritage. Sadly, almost all are now at risk, most particularly the understorey and ground fauna and flora which are so vulnerable to developmental pressures, exotic alienation and in the case of some species, particularly orchids, theft by private collectors.

Why is this so, given the high profile of biodiversity, the increased, though still inadequate, governmental support for conservation and the growth of community and private contributions to restoration? The reasons are manifold but we can touch but briefly on a few issues. Three aspects stand out: firstly the conservation agenda is currently dominated by ends which are worthy but are neither directed towards, nor in a position to deal with this urgent and seemingly intractable problem of local gene-pool depletion; secondly the attention being paid to rare species or subspecies completely overshadows the mounting loss of what we once called common plants which form the base of the overall biodiversity; and lastly our failure to both marshal our own resources and redirect our attention to the problem of day-to-day - survival.

It comes to this, the fate of Melbourne's rich biodiversity heritage will largely rest in the hands of those who not only value it highly but would also work as hard for its restoration as did their forebears in what they saw as its conquering. Have no doubt - all it will take for its ultimate degeneration is for us to do nothing.

There's Hope – And A Challenge

If a sustainable biodiversity renewal on a scale meaningful to local area restoration is to be achieved we will require much more than restorative action on depleted

sites especially if they were to continue to be subjected to the influences which led to their decline. A radically different approach will be necessary, complementary to existing conservation measures, which focuses on the fundamental problem of local biodiversity renewal and protection. Our proposition, which will present major challenges and require unprecedented levels of involvement, is based on the creation of multiple, safe centres of vigorous biodiversity regrowth using pooled, local genetic remnants. We recognise that these would be centres of biodiversity renewal not restoration because we cannot either totally know or restore the past. What we can do is exploit to the full the existing remnants, using the best available genetic and other guidelines to balance resilience of diversity against excessive blurring of local variations; at all times keeping our future options as open as possible. The integrity of such an endeavour is obviously critically dependent on the breadth, diversity and degree to which the genetic base is relevant to each of the selected local biodiversity bounds, probably at catchment or sub-catchment levels.

In relation to public land this raises two imperatives. Improved protection is essential for significant habitats in the Melbourne area where, as we have noted, stealing by collectors is becoming rife, starting perhaps with the raising of their status to urban reference areas. An even more important and urgent step would be to set up agreements for minimal-intrusive collection of genetic material for propagation. Private contributions to gene-pool sharing will of course also be of major importance and it is already clear that this would receive wide support.

The second component of the proposition requires long term secure and supported surrogate habitats for gene-pool renewal. These would need to be of moderate ecological intactness, minimal disturbance and low weed infestation and have a spread over a range of habitat types and locations. Perhaps surprisingly, the prospects here are very good as there are increasing numbers of landowners, particularly those with conservation covenants or under the Land for Wildlife scheme, whose interests in conservation are increasing and in many case becoming their prime motivation.

The third requirement would be for effective methodologies related to such aspects as species collection, propagation and nurturing, habitat matching and ecological evaluation. Investigation and research would be envisaged as an integral part of the operations and with the increased availability of trial sites and the greater appreciation of the significance that a better understand-

ing of plant growth and habitat compatibility would have for both preservation and renewal, there would be incentives for increased academic and professional support in this field.

Where There's The Will (At Grass Roots) – There Are Multiple Ways

The inclusion of local biodiversity renewal as a major conservation goal, which in no way implies the rejection of existing causes, would we believe, be well justified.

Firstly, nothing is more fundamental to the survival of our biodiversity heritage than the on-going natural evolution of our indigenous gene-pools within complex biodiversity habitats across the nation. Individual local biodiversities have in this situation a special significance because they contribute to the geographic spread and diversity which enhances species survivability when confronted by climatic, environmental and social changes. Local biodiversities are also of considerable importance in their own right because it is our own environment, wherever we live, it gives us pleasure and contributes to our identification with our land and our heritage. Again and equally importantly, there is the critical aspect of community involvement which can only become effective through grass roots association.

Secondly, the conservation movement requires, both for its internal vitality and its external standing in the community, to be directly involved in initiatives of major importance for the natural environment, bringing to the fore the relevance of our contributions to the community and the nation. Otherwise we stand to lose the agenda battle; the proposition for local biodiversity renewal would be a significant confirmation of our growing commitment. Furthermore its broad scope and opportunities for involvement at all levels should both engender closer cooperation between nature organisations and encourage greater community participation.

Given a workable measure of support for this proposition how should we proceed? Not, we would suggest by grand plans and financial submissions, but by a progressive development based on accumulating experience of the different participants with regular interchanges of ideas. Again not management driven, but independently by individuals and groups working to broadly agreed goals and guidelines developed and revised by participants. Interaction at the personal level between individuals and different participating groups may be best served by a combination of field days and extensive E-mail conferencing and the web. In practical ways, operation would have much in common with existing successful examples such as Friends Groups, Landcare and Land for Wildlife, possibly if agreed, coming under the broad umbrella of the latter. Organisations and their members who could make valuable contributions, should they agree, are all of those in the nature sphere, be they in

studies or practical areas. Because the core proposition is really an ecology level version of the SGAP goal of "Preservation through Cultivation", with the added prescription of local provenance and ultimately growth in surrogate habitats, their involvement would be particularly valuable. Professional and commercial indigenous plant growers and providers of supporting services would also be expected to be strongly involved though this could be subject to financial constraints. In all other respects, at least in the early stages, we believe that importance and urgency must be the determinant and we must proceed whether assistance is available or not.

Taking Up The Challenge

We welcome criticisms and comments on the proposal, briefly overviewed here, as the first step in the development of an acceptable and viable approach to the renewal of the biodiversity of our local areas. IFFA members and others wishing to pursue these ideas in a relaxed atmosphere are invited to a gathering over the weekend 17 to 19 July at our Laanecoorie Haven property in Strathewen on the north-eastern outskirts of Melbourne. Two working sessions are proposed, one on each day to provide a forum for a critical examination of the concept in principle and subsequently to help define the areas of uncertainty and possible approaches. We look for a number of short prepared presentations and full participation in wide ranging discussions.

LAANECOORIE HAVEN On the Kinglake foothills

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17 – 19 JULY 1998

ON

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RSVP 10 July 1998

Wet and Weedy in Western Australia

By Esma and Alf Salkin, Mt. Waverley

Editor's Note: This article is originally from the Oct./Nov. issue of the SGAP (Society for Growing Australian Plants) Waverley Newsletter and was subsequently published in the March 1998 SGAP Victoria Newsletter. Esma and Alf are members of the SGAP Daisy Propagation Group and do much work in raising native daisies.

Reflecting on our visit to Western Australia in September 1997, Alf and I believe we were fortunate to have visited the southern areas of the state in 1974. At that time, there were still roadside verges displaying a great diversity of native species. This was especially apparent in the Esperance area. At times we were stopping every few hundred metres to examine something "new".

We have visited the same area in 1983, 1988, and 1991, and each time the quality of the roadside verge has deteriorated and more areas have been opened up for agriculture. This expansion of agriculture on the coastal plains has contributed significantly to the loss of local flora. Our most enduring memory of this trip will be standing on a granite outcrop at Condingup Look-out (100 km east of Esperance) and gazing at the 360° view of yellow paddocks stretching to the horizon. **The yellow was the most widespread daisy we saw in WA - Cape Weed.**

We always return to one of our favourite haunts - Lucky Bay at Cape Le Grande National Park. Once, the roadside vegetation over the 50 km to the park was diverse and a good representation of the local flora. In 1988 there was still a good stand of *Banksia occidentalis*. In 1997, nothing but a few hardy *Nuytsia floribunda* remained. The coastal scenery in this park is beautiful - white sandy beaches, guarded by huge granite boulders. At one end of the bay, there's a plaque commemorating the visit of Flinders and Robert Browne, the botanist in 1801. It's a peaceful place for pensive contemplation and enjoyment, or was until I looked at the flora nestling in the crevices in the granite - Freesias. This invasive South African bulbous plant is usurping Australian species such as *Asteridia nivea* from its ecological niche. Freesias multiply not only from bulbs but also from seed. This seed, about 10 or more capsule and 4 or more capsules per flowering stem, is spreading rapidly. Lucky Bay needs "Friends" to limit the spread of this weed. The campsite is well run and has hot (solar) showers. The National Park, as elsewhere, is under-resourced and under-staffed. Freesias may be the worst of the weeds, but there are, as well, two species of Phytophthora and kangaroos in plague proportions.

The Esperance Wildflower Society is an active group and keeps an eye on local reserves. With assistance from

the local Council, CALM, and others, they have published three small volumes of *Wildflowers of Esperance*.

The small group of locals who run the annual Ravensthorpe Wildflower Show have also published a book, *Native Plants in the Ravensthorpe Region*, which is more informative. On local advice, we visited the Ravensthorpe Range and saw just a tiny portion of the 1800 species in the locality. We saw mallees, Isopogons, Petrophiles, Chamaelauciums, Baeckneas, Thryptomenes and *Olearia ciliata* and *Argentipallum niveum*, the latter one of the few daisies able to compete for nutrients with proteaceous shrubs.

Wherever we travelled in the south-west we attracted rain, but between showers we found the Asteraceae species we were seeking - *Hyalospermum simplex* ssp. *simplex*, *H. simplex* ssp. *granitcola* and *H. pusillum*. All grew in specific habitats, all small and all in moist situations. It was a case of "small is beautiful" and we spent a lot of time on hands and knees peering into moss beds. If you haven't looked closely at the flora of moss beds on granite slabs, there's a treat waiting. There's a fascinating array of species, Bladderworts, Levenhookias, Lilies, tiny reeds and many tufted species less than 1.5 cm high. Many are probably Asteraceae. It was while looking for mature seed of one of these tufts, that I spied a small *Brachyscome* barely 10 mm high. I have high hopes that it's a species not collected for our recent book.

The Stirling Range was a great disappointment. Most of it was blackened by recent wildfires. It was very wet and most tracks and roadside areas were closed - no doubt to control the spread of Phytophthora. After a night of rain we woke to misty rain and Bluff Knoll under fog. We opted for the Porongunups and arrived with the rain and in the gloom, and decided no small daisy was worth a 3-4 hour walk in the rain.

Our spirits were revived at Cheyne Beach and adjoining National Park. Despite showery weather we did a long walk and admired large stands of *Banksia coccinea* and *B. praemorsa* in flower and the deep velvety lips of the maturing *B. baxteri* cones. This coastal heath was awash forming fast flowing creeks and flushing out like a fountain where the soil profile was exposed. Despite the water, this heathland was alive with the pinks of Isopogons, yellows of Petrophiles, the red buds of *Chamaelaucium megapeptalum* and numerous clumps of the pseudo-daisy *Actinodium* sp. (formerly *A. cunninghamii*).

Where annual rainfall is high, weed species such as *Watsonia* and Arum lilies were lush. In drier areas on coastal heaths, Bridal Creeper is well established and

choking out the shrubs in excess of 1 metre. The incursion of weeds is a problem in all states. Agricultural practices, roadside maintenance and new techniques in road building (smooth, evenly sloping verges devoid of vegetation is a common scene) are some of the contributing factors. Edging the Eyre Highway for hundreds of kilometres was Onion Weed, and from Ceduna onwards, Paterson's Curse and the odd introduced Hops and so on to Victoria. All along the roadside from Naracoorte to Horsham and beyond, the main flora was a small white *Watsonia* type flower (no specimen taken).

The promotion of the natural environment is a core component in the growth of tourism in Australia. **If we wish to promote the tourist potential of the uniqueness of our natural environment, we, as a community, have to be prepared to invest in its preservation.** This means adequate and well trained staff to manage reserves, roadsides etc. and research to assess how to retain remnants of this flora in viable condition. **In the twenty odd years since our first visit to WA, much of the flora is gone and this is particularly evident on roadsides.** There are some good remnants of natural vegetation in wide roadside reserves where there has been intent to preserve local flora. There are some enlightened attempts to revegetate highway verges, but more often, weedy species are introduced with the loss of local species.

Retaining a good display of local native species along our roads and highways assists in maintaining genetic diversity. It is also a "window to the world" on our attitude towards our environment.

Battle Begins to Eradicate Alligator Weed

One of the worst weeds in the world, Alligator Weed, *Alternanthera philoxeroides*, has been surviving in Victoria since the 1960's. Alligator Weed is a State Prohibited Weed in Victoria and it is a government priority to eradicate it.

Last November Keith Turnbull Research Institute research staff started the war against this weed. Initially 100 infestations were selected as priorities for treatment according to the ranking criteria: proximity to waterways, major drains and wetlands; size of infestation; and risk of naturalisation. Over summer the 100 priority sites and all recorded infestations in the City of Casey were treated.

Three herbicides are being used on an experimental basis because there are no registered chemicals to control alligator weed in Victoria in terrestrial situations. One hundred and ninety five infestations have been treated so far. To date the results and cooperation on this campaign are very good.

Two replacement plants for Alligator Weed are also being introduced to the Sri Lankan community for use as a vegetable through Buddhist temples and other contacts. Replacement plants are both Australian natives: Lesser Joy Weed (*Alternanthera denticulata*) and Common Joy Weed (*Alternanthera nodiflora*). Most people accept the replacement plants especially *A. nodiflora*. It has larger leaves, a higher growth rate and is also tastier than *A. denticulata*.

The two replacement plants and Sessile Joy Weed/ Mukunuwenna (*Alternanthera sessilis*) have been analysed for chemical composition. *A. sessilis* is an introduced plant, has a limited distribution here, in cultivation. In Sri Lanka it is cultivated as a vegetable but it is a declared noxious weed in Florida (USA) and a troublesome weed in several tropical countries. It would not be prudent to promote the use of this species in Australia. Results of the chemical analyses (available from the contacts below) show that the alternative species are suitable for human consumption.

Contact:

Lalith Gunasekera Ph. (03) 9785 0137

Hemasiri Rajapakse Ph. (03) 9785 0135

KTRE's Alligator Weed program is funded by DNRE's Pest Plants and Animals Program.

Source: Under Control, Newsletter of KTRE, No. 5, March 1998

New Research on the Use of Fire by Aboriginal Australians

I wish to draw the attention of IFFA members and readers to the following article published in *Cunninghamia*, the ecological journal of the Royal Botanic Gardens, Sydney.

Benson, J. S. and Redpath, P. A. (1997). The nature of pre-European native vegetation in south-eastern Australia: a critique of Ryan, D. G., Ryan, J. R. and Starr, B. J. (1995) *The Australian Landscape - Observations of Explorers and Early Settlers*. *Cunninghamia* 5(2), 285-328.

This very important 43 page article should be widely read. It analyses the historical, anecdotal evidence concerning the structural nature of pre-European vegetation and Aboriginal use of fire as reported by early explorers, and the modern interpretation of these historical records. In particular it questions the methods and/or motives of some contemporary commentators - Ryan et al., Tim Flannery and Eric Rolls. The abstract of the article is quoted below:

Based on a selection of quotes from early European explorers and settlers, and modern authors including Flannery (1994), Ryan *et al* (1995) suggest that, at the time of European settlement of eastern Australia: the vegetation was mainly composed of grassland and grassy woodland; Aborigines burnt most of the country every year or so; and a lack of fire after European settlement led to thick regrowth that was subsequently ringbarked and cleared by settlers for agricultural expansion. Ryan *et al* (1995) present one line of evidence in trying to explain pre-European vegetation and overlook the extensive scientific literature on past and present vegetation, and on fire ecology in Australia. By referring to the scientific literature and by re-examining the same historical sources used in Ryan *et al* (1995), we examine the views of Ryan *et al* (1995) and also question hypotheses put forward in *The Future Eaters* by Tim Flannery (1994) and the views about pre-European tree density in *A Million Wild Acres* by Eric Rolls (1981).

The quotes used in Ryan *et al* (1995) mainly cover parts of south-eastern Australia between Tasmania and Brisbane, but do not deal with particular regions in systematic way. They generally refer to one type of vegetation formation - grassy woodland, which mainly occurs on clayey soils in drier coastal valleys, on non-siliceous soils on undulating tablelands and on the western slopes. The explorers may have favoured travelling through these areas because they occur near rivers (water), had an open understorey and because some explorers were employed to seek out suitable grazing lands. Using three historical estimates of tree density in

grassy woodlands, we estimate there was an average of 30 large trees/ha spaced about one tree width apart. This contrasts with Rolls' estimate of 4 large trees/ha and the perceptions of Ryan *et al* (1995) about the structure of a woodland. We found frequent references in the explorers' journals to vegetation containing a dense understorey including coastal heath, shrublands, rainforest and dense eucalypt forests. We found no evidence that most of south-eastern was annually burnt by Aboriginal people and provide examples where explorers' notes about fire have been misinterpreted or inappropriately extrapolated by Ryan *et al* (1995) and Flannery (1994).

While some journal entries reveal that Aboriginal people used fire for cooking and burning the bush, the extent, frequency and season of their use of fire is largely unknown, particularly for southern Australia. Vegetation types such as rainforest, wet sclerophyll eucalypt forest, alpine shrublands and herbfields, and inland chenopod shrublands, along with a range of plant and animal species, would now be rarer or extinct if they had been burnt every few years over the thousands of years of Aboriginal occupation. Furthermore, Ryan *et al* (1995) and Flannery (1994) ignore much evidence that points to climate as being the main determinant in vegetation change of millions of years, with major changes occurring since the onset of aridity in the Miocene but continuing through the last ice age, which coincided with the occupation of Australia by Aboriginal people.

The adaptation of many plant species to aridity, drought, low nutrient soils and fire does not imply a requirement for them to be frequently burnt. South-eastern Australia's native vegetation is now highly fragmented, after 200 years of clearing, stock grazing and weed invasion. Management of what remains of this vegetation should be based on the scientific understanding of the functioning of ecosystems and the population dynamics of a range of plant and animal species.

References

- Flannery, T. (1994). *The future eaters*. (Reed Books: Melbourne).
Rolls, E. (1981). *A million wild acres*. (Penguin Books: Melbourne)
Ryan, D. G., Ryan, J. R. and Starr, B. J. (1995). *The Australian Landscape - Observations of Explorers and Settlers*. (Murrumbidgee Catchment Management Committee: Wagga Wagga NSW).

Reprints of this article are available for \$5.00 from the Royal Botanic Gardens Sydney bookshop: Mrs. Macquaries Road, Sydney NSW 2000, phone: (02) 9231 8125.

Submitted by Geoff Carr.

Coming Events:

Conferences/Workshops/Talks

June Thursday 4. **Green Wedge Environment Seminar Series. Helmeted Honeyeater Recovery Program**-lan Smales (Healseville Sanctuary). 7.30pm Warrandyte Community Centre. (Melways 23 F11) Contact Mike Coupar 9903 9567.

June, Saturday 13. Greening Australia Environment Industry Training Program. **"Advanced Plant Propagation of Native Plants"** Cost:\$125. Location: Burnley College, Yarra Blvd, Richmond.(Melways 45 A12).Time: 9.am - 4.30pm. Contact Mary Trigger, Industry Training Program Co-ordinator on (03) 94573024.

June, Sunday 14. **Flora and fauna identification, habitat and land rehabilitation. Box - Ironbark Appreciation** in conjunction with Trust for Nature. Dr Barry Traill, Conservation Manager, Trust for Nature and Ron Hateley, Lecturer, Melbourne University, will conduct this interactive workshop.Cost: \$20/10 concession. Refreshments provided, BYO lunch. Time: 10am - 4pm. Location: Maryborough area. Contact Creswick Landcare Centre on (03) 5345 2200.

June, Thursday 25. Greening Australia Environment Industry Training Program. **"Seedling Identification and Germination Issues."** Cost:\$125. Location to be finalised. Contact Mary Trigger, Industry Training Program Co-ordinator on (03) 94573024.

June, Saturday 27. Port Phillip Community Training Program **"Landscape Design for Revegetation Projects Using Indigenous Plants."** Learn landscape design; indigenous plant use; revegetation principles. Contact the Training Co-ordinator on 9457 3024 or access the website at <http://www.vicnet.net.au/~gavic>

July, Thursday 2. Greening Australia Environment Industry Training Program. **"Re-establishing Understorey Diversity."** Cost:\$125. Location to be finalised. For information contact Mary Trigger, Industry Training Program Co-ordinator on (03) 94573024.

July, Thursday 2. Port Phillip Community Forum. Session aims to provide an open community forum for participants to acknowledge the diverse range of environmental activities they are involved in. Key presenters, exhibitions, prizes and giveaways. For information on registration details contact the Training Co-ordinator on 9457 3024 or access the website at <http://www.vicnet.net.au/~gavic>

July, Sunday 19. **"Building Nest Boxes."** Learn the steps of building, placing and attaching nest boxes from Jim Grant of the Gould League.Cost:\$35/20 concession.Time: 10.30am - 3.30pm at the Creswick Landcare Centre.BYO hammer and lunch. Contact Creswick Landcare Centre on (03) 5345 2200.

July. Port Phillip Regional Session. **"Waterways and Streamside Vegetation Management."** Session aim at providing participants with an understanding of riparian vegetation and waterways management options, waterways problems, threats and solutions. Location is Cavendish. Contact person is Dave Warne Ph 5521 7856. Contact the Training Co-ordinator on 9457 3024.

August, Sunday 2. Port Phillip Community Training Program. **"Constructing Nests and Refuges for Wildlife."** Aims

at enabling participants to develop an understanding of the issues involved in habitat needsof wildlife and the skills to construct nestboxes. Contact the Training Co-ordinator on 9457 3024

August, 17 - 21, **"Spillcon 98"**, Australasia's premier oil spill conference will be held in Cairns, Queensland. The theme of the conference will be **Oil Spills: causes and cures**. For more information contact the organisers: Conference Secretariat, C/- The Meeting Planners, 108 Church St, Hawthorne Vic ,3122. Ph.(03) 9819 3700

August, Monday 24 - Friday 28. **"Forest Vegetation Management and Ecosystem Sustainability: 3rd International Forest Vegetation Management Conference."** Location: Saulte Ste. Marie, Ontario, Canada. For information contact IFVMC#3, Ontario Forest Research Institute, Ontario Ministry of Natural Resources, 1235 Queen St E, Saulte Ste.Marie, Ontario, Canada P6A 5N5. Ph. +1 705 946 2981, fax +1 705 946 2030, email:ifvmc3@epo.gov.on.ca

September, Monday 14 to Friday 18. **Fifth International Botanic Gardens Conservation Congress, Kirstenbosch, Cape Town, South Africa.** Plants, People and the Planet Earth - the role of botanic gardens in sustainable living. Hosts for the Congress this year are the National Botanical Institute of South Africa. Program will include keynotes on themes such as building botanic gardens conservation network, the challenges posed by the Convention on Biological Diversity, science, environmental education and interpretation. Tours will also be conducted. For information contact email address: bgci98@nbict.ac.za. Postal address: Claremont 7735, Cape Town, South Africa. Phone: +2721-762 1166.

September, Tuesday, 22 - Thursday, 24. **"Paradise Lost? Will you let it happen?: 5th Queensland Weeds Symposium."** Location: Righa Colonial Club Resort, Cairns, Queensland. For information contact Susan Dickey on (07) 4041 1155, fax (07) 4041 1244 or email: eventcorp@internetnorth.com.au.

October, Sunday 18 to Friday 23. **"18th International Federation of Park and Recreation Administration World Congress and Royal Australian Institute of Parks and Recreation National Conference."** Includes workshops, technical tours, paper presentations, national and international speakers. Theme: Changing societies- the Challenge for Parks and Recreation. Melbourne Convention Centre, Melbourne, Victoria. For further information Ph: +61 (0)3 9819 3700. Fax: +61 (0)3 9819 5978.

Field Trips/Walks/Excursions

June, Thursday 4. **Friends of Warrandyte State Park Morning Activity.** Visit to Shepherds Bush. Ant Owen will lead a walk along the Dandenong Ck. Meet at depot 10.00am or at Shepherds Bush information shelter, High St, Glen Waverly, (Melways 71 J1)For information contact Jan Tindale on 9844 3719.

July, Saturday 25. Port Phillip Bus Tour. **"Indigenous Community Nurseries - a growing idea."** Visit a number of community nurseries, discuss management issues, practical methods and operations. For information on registration details contact the Training Co-ordinator on 9457 3024 or access the website at <http://www.vicnet.net.au/~gavic>

July. Port Phillip Regional Bus Tour. "**Managing Streamside Vegetation.**" Visit a number of sites and discuss issues involved in streamside management and revegetation. Location is Deans Marsh. Contact person is Claire Dennis. Contact the Training Co-ordinator on 9457 3024 or access the website at <http://www.vicnet.net.au/~gavic>

August. Port Phillip Regional Bus Tour. "**Biodiversity and Ecosystems - what are they?**" Aims at enabling participants to define biodiversity and ecosystems by visiting local sites and identifying the interaction and impact they have upon each other. Location is Bairnsdale. Contact person is Kate Walsh Ph. 5659 5236. For information on registration details contact the Training Co-ordinator on 9457 3024 or access the website at <http://www.vicnet.net.au/~gavic>

Restoration Activities

June, Saturday 6. **Friends of Kinglake National Park.** Check Tuan nest boxes at Watsons Ck. 9.30am. Meet at Marshalls Rd. gate.(bottom of Everard Tk). St Andrews.

June, Thursday 11. **Friends of Warrandyte State Park Morning Activity.** The Coup.Weeding, Planting and a wander through the revegetation. Meet at the depot 10.00am, (Melways 23 C10). For information contact Jan Tindale on 9844 3719.

June, Sunday 14. **Friends of Upper Moonee Ponds Creek Planting Day.** Meet at Wright St entrance, Westmeadows (Melways 5 G5) 1.30pm - 4pm. For further information, contact Parks Hume on (03) 9309 1052.

June, Sunday 14. **Broad Street Residents Group BBQ and Planting Day.** Meet at Attwood Ck, Broad St, Westmeadows (Melways 6 A6) 10am - 12pm. For further information, contact Parks Hume on (03) 9309 1052.

June, Sunday 14. **Friends of Merri Creek, Planting Day** at Hatty Court on the Gorge at Galada Tamboore, Campbellfield. For information phone 9480 5492.

June, Saturday 20. **Friends of Werribee Gorge and Long Forest Mallee Inc.** Planting Day. Long Forest. For information contact the Co-ordinator on (03) 5367 4229.

June, Sunday 21. **Friends of Jackson's Creek,** Planting day and BBQ at The Nook, Sunbury. Meet at the Wooden Footbridge, (Melways 382 G4) For further information, contact Parks Hume on (03) 9309 1052.

June, Sunday 21. **Turkish Anatolian Residents BBQ and Planting Day. To be held at Broadmeadows Valley Park.** Walk in from Erinbank Crt, W/meadows (Melways 6 E4) 11am - 1pm. For more information contact Parks Hume on (03) 9309 1052

June, Thursday 25. **Friends of Warrandyte State Park Morning Activity.** Planting at The Pound Bend Tunnel Fence. Meet at the Pound Bend Tunnel car park at 10am (Melways 23 A11) For information contact Jan Tindale on 9844 3719

June, Sunday 28. Meadow Heights Residents BBQ and Planting Day. To be held at Bethel Gully, Broadmeadows Valley Park, behind Bethel Primary School, Baker Crt, (Melways 6 H2). For more information contact Parks Hume on (03) 9309 1052

July, Sunday 12, **Friends of Merri Creek, Planting Day** at Brex Court, Reservoir with the Spanish dance group, Sol du Portugal. For more information phone (03)9480

From the Editor:

We are still working on getting Coming Events back together and flowing. Marcus Bechley is doing an admirable job under difficult circumstances; ie. he's got too much bush regeneration work to do with the financial year ending soon and we are not getting that much information in...

This is truly your last chance for getting your Regular Restoration Activity in our feature which we will be getting out in June and will cover the rest the year.

And, in general, please keep information flowing in. We want inspirational articles about ideas and activities as well as interesting discussions about any issues of interest to you as members.

Observant readers will notice changes in Indigenotes over time. I've definitely been receiving much less original material for Indigenotes. I hope I still find lots of interesting, inspirational and useful information to present to you even though I use the photocopier much more than in the past.

What do you think of Indigenotes? Is it useful? What else would you like to see in the newsletter?

And in addition, your editor is moving employment and location. I've got a job as Environmental Planner for the Shire of Wellington in Gippsland and will be moving to Sale, although my consulting/contracting business will be continuing with me guiding from afar. I will still edit Indigenotes as well from afar and for the moment the address for correspondence will not change.

Lincoln Kern

Books:

Investigating Australian Ecosystems

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A Guide to Flowers and Plants of Tasmania

By Launceston Field Naturalists Club

Published by Reed Books Kew (1996)

This guide was first produced in 1981 to provide a "simple, illustrated, non-technical book for the identification of wildflowers in Tasmania". But this was no simple task, for Tasmania, despite its small size, has nearly 2000 species of flowering plants. The editors chose a sample of both widespread and less common species, each illustrated by a full colour picture. They claim that "no plant (is) shown which cannot be seen within half a day's walk from a road somewhere in Tasmania and without a using a four wheel drive vehicle". Hence any visitor to Tasmania interested in wildflowers could expect to encounter many of the plants found in the guide.

The fact that this book has been reprinted five times since 1981 speaks volumes for its usefulness. The arrangement of the plants is by vegetation type - montane, wet sclerophyll, rainforest, coastal heath and so forth, and Mary Cameron has written a concise

botanical introduction to cover the features of each type. I strongly recommend *A Field Guide to Flowers and Plants of Tasmania* for anyone wanting to learn more about the Tasmanian flora. The size of the book makes it ideal for a backpack and the price through SGAP Victoria Sales (29 Pope St., Boronia, VIC) makes it affordable to everyone.

Tony Cavanagh

Source: SGAP Victoria Newsletter, March 1998

Look at the SGAP Victoria Net Site for more info:
<http://home.vicnet.net.au/~sgapvic/>

Wild Neighbours: The Humane Approach to Living With Wildlife

By John Hadidian, Guy Lodge and John Grandy, Eds. 1997; 253 pp. US\$16.95
Fulcrum Publishing

Americans have found that "wild" animals near home are as engrossing as TV. Many cities have encouraged the return of deer to suburbia, raccoons to downtowns. The birdseed business skyrockets. Families have become gentler and more accepting of urban wildlife mischief. If you want to teach that tolerance is fun, try wild neighbours.

Wild Neighbours is the best guide so far to calming over-reaction. The chapter on each pesty neighbour has a summary of the problem and solutions (tolerance, exclusion, scare devices, repellents, habitat management, capture). Its gaps are a bit irritating; pack rats, the main bane of many a western home, do not appear. Nor are the special perforators (acorn woodpeckers). Starlings are "controlled" (killed) in many locations because they steal the nesting holes of native birds. Peter Warshall

"Starlings were introduced into North America in 1890, when an enterprising New Yorker named Eugene Schieffelin had about a hundred of these birds brought over from England to be released into Central Park. It seems Mr. Schieffelin and small group of like-minded friends had a passionate interest in introducing into this country all of the animals mentioned in the works of Shakespeare. From the initial hundred, their population numbers are in the hundreds of millions now. They outcompete many native birds and alter the balance of nature so much that we really have no idea what it might be like without them."

Source: *Whole Earth Magazine*, Winter 1997

The Impact of Recent State Budget Cuts:

From the Weekly Times 20 May 1998

From The Age 28 May 1998

Conservation Action: **Regent Honeyeater Survey 1998**

The endangered Regent Honeyeater is a specialised, medium-sized honeyeater, which occurs mainly in box-ironbark open forests of Victoria, NSW and Queensland, although it may also be found in coastal forests. A large proportion of their time is spent feeding on nectar of flowering eucalypts. Insects which are attracted to flowering eucalypts are also an important food source, especially when breeding.

The overall visual impression of the Regent Honeyeater is of a blackish bird, boldly embroidered with yellow and with brilliant yellow flashes in wings and tail. A patch of bare, creamy skin surrounds each eye. Regent Honeyeaters are highly mobile, rarely remaining in one place long unless breeding. Many breed in remnants of open forests in farmland and along roadsides. The decline of the Regent Honeyeater appears to be due to a steady reduction in the area and quality of its habitat. Through Victoria and NSW, only nine sites are known where Regent Honeyeaters can be found regularly.

Information regarding post breeding movements and total population size of Regent Honeyeaters is very limited. Through a network of observers who have regularly reported incidental observations, we are gradually learning more about this elusive species and revealing new areas where the birds regularly appear. The principal objective of this survey is to develop an estimate of the population size of Regent Honeyeaters throughout their range, and population sizes at a local level.

The next survey is to be held on the weekend of 8-9 August 1998, covering Victoria, NSW, the ACT and southern Queensland. The survey will involve volunteer observers visiting either selected sites (based on where Regent Honeyeaters have been previously recorded), or sites which contain potential key habitat (i.e. profuse flowering of eucalypts, or conspicuous presence of other nectivorous birds, lerp infestations, etc.). Results of the surveys will be published in the recovery program newsletter, "Where the Regents Roam". I hope you will continue to submit your incidental sightings from anytime during the year.

For more information contact:

**David Geering (Regent Honeyeater
Recovery Coordinator)**
DNRE P. O. Box 500, East Melbourne VIC 3002
Ph. (03) 9412 4297 or 1800 621 056 (freecall)
Source: Field Nats News 65, May 1998

Timboon Bushland Co-op Needs Your Help

In the home stretch!!!

Put your money where your heart is!!!

Remember the Timboon Bushland Coop. Early in 1995 the Timboon Field Naturalists Club was informed that a beautiful bit of bush, about 70 acres, along the railway line near Timboon (north of the Otways) was up for sale. Several locals decided it needed protection and that they would have to do something about protecting it because the government was unlikely to protect it for conservation purposes. This was the genesis of the Timboon Bushland Cooperative Ltd. whose aims include the following:

- Acquisition of 70 acres of bushland 3 km from Timboon;
- Management of the land to protect and enhance the viability of the indigenous flora and fauna and
- Provision of passive recreation opportunities for Co-op members.

The Co-op had the opportunity to buy the land for \$60,000 (excellent value!). They decided that the Co-op would consist of 60,000 shares which would be sold in units of 250, requiring 240 people to lay out \$250 each for the cause. Well, plenty of people, both locally and far away, thought this Co-op was a great idea and have become members, over 190 in fact.

In 1997 the option to buy the land was expiring and the farmer was considering the open market but the Co-op had only raised half the money required through shares. But the Trust for Nature came to the rescue and loaned the Co-op half the money to buy the land. Since then the Co-op has raised much more money, owing only \$11,500 to the Trust for Nature and the due date for the balance is July 1998. It is hard to imagine the Trust for Nature foreclosing but they have their due date for the funds and we can be sure they have plenty of other excellent uses for the money in their revolving fund, used for purchasing, covenanting and reselling important land for conservation.

In other words the Timboon Bushland Co-op Ltd. needs to raise \$11,500 within two months, equivalent to only 46 people buying their package of 250 shares for \$250. This should be more than possible if the word can get out. Please tell your friends and spread the word of what a great bargain this is; just \$250 dollars gets you a share in preserving important bush and gives you and your descendants a beautiful bushland reserve to visit forever.

Contact:

Chairman, Shirley Duffield, (03) 55662319 or
Secretary, Rosemarie Bufton
RMB 8297
Timboon 3268 Ph. (03) 55983 516
Or use the application form on the next page:

IFFA activities:

IFFA (Vic) Meeting:

No meeting for May

General Meeting

Venue:

SPIFFA

Public meetings are on the first Monday of every month at 7:30 pm at the Waterfall Gully Community Centre, corner of Bayview Rd. and Nixon St., Rosebud.

Contact: Jon Greening (03) 5985 5561.

TABLE OF CONTENTS:

Local Biodiversity Renewal	2
Wet and Weedy in WA	3
Battle Begins to Eradicate Alligator Weed	4
New Research on the Use of Fire by Aboriginal Australians	5
Down to Grass Roots: A Conference on the Management of Grassy Ecosystems	6
<u>Coming Events:</u>	8
<u>From the Editor:</u>	9
So you want to do community environmental monitoring	10
Revegetation without destroying native grasses	11
<u>Books:</u>	12
<u>The Impact of Recent State Budget Cuts</u>	13
<u>Conservation Action:</u>	14

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

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