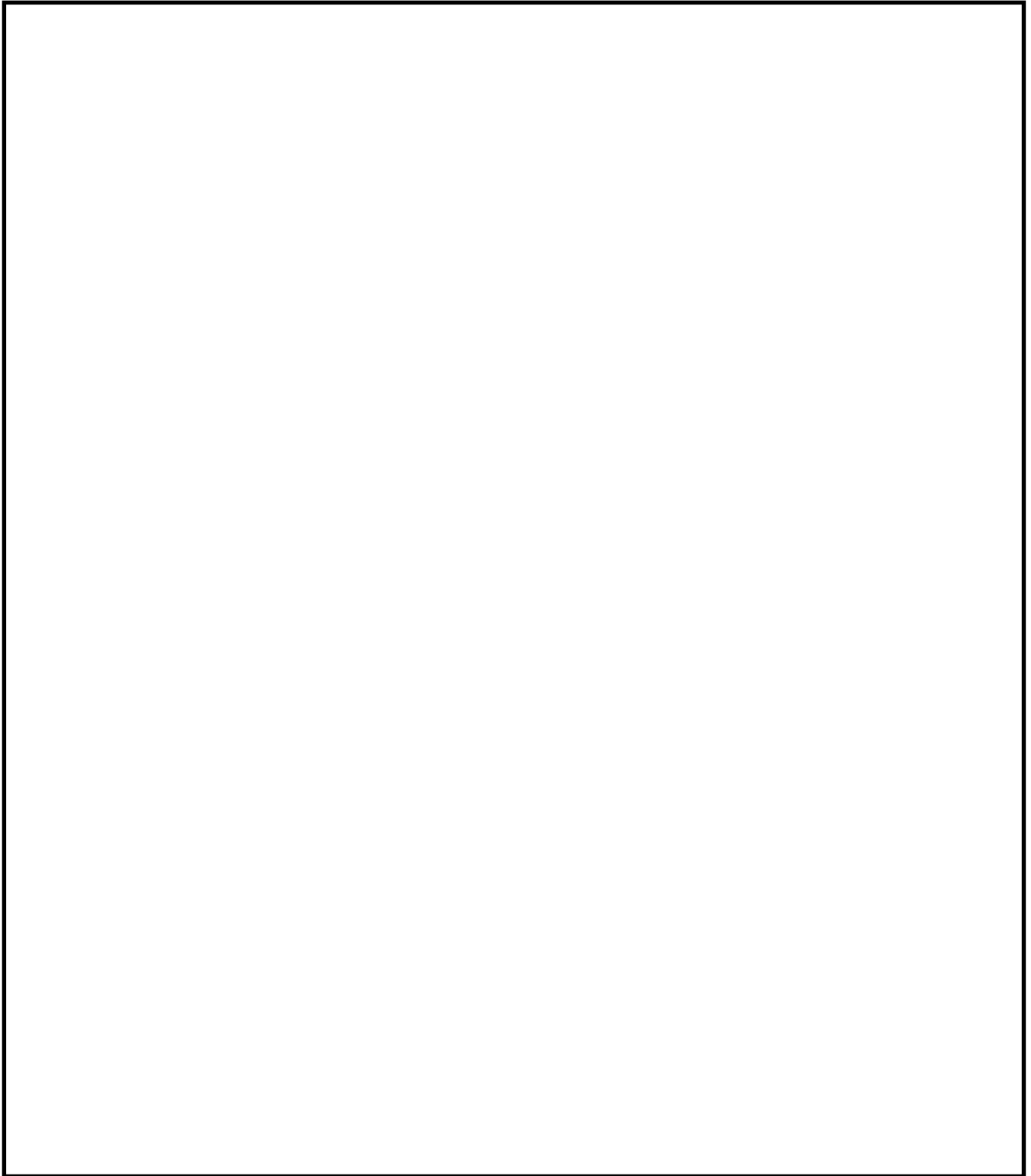


INDIGENOTES



White Mangrove - *Avicennia maritima* var. *australascica*
Please see page 2 for description.

Notes from the editor:

Apologies

The IFFA committee apologises for the late mailing of last month's issue. Due to machinery failure at our printer Indigenotes was unable to be posted until a week late.

We'll do our best to get back to our consistent, prompt mailings.

Guest Editor for June and July

Your selflessly dedicated newsletter editor is heading overseas for two months beginning May 31 for a real holiday far from the IFFA computer. I'll be heading to Chile and USA and will at least line up a buyer for *Nassella neesiana* seed.

So, we have obtained a guest editor for two months. Michelle Lauder (you've seen her excellent work on many Greening Australia Victoria publications) will take on the task for June and July. All contributors can still use the same Indigenotes post office box, arrangements will be made to empty it when necessary. Please keep all that great material flowing in so Michelle has the substrate to create a good newsletter.

New Coming Events Person Needed!

Jo Ferguson has started a university course that is taking up lots of her time so she is giving up the task of Coming Events in two months. Jo will edit the section in April and May and needs someone else to volunteer and be trained in the intricacies of the job before she finishes up at that point.

The job itself involves communication with many different groups through newsletters and phone calls. It has taken Jo between 4 and 8 hours per month to compile Coming Events and she has always enjoyed it! If there is anyone even slightly interested please ring myself or Jo Ferguson as soon as possible for more information!

Front Cover: White Mangrove - *Avicennia maritima* var. *australascica*. Family: Verbeniaceae.

There are 14 species of *Avicennia* worldwide and 2-4 species in Australia. *A. maritima* grows in all mainland states and is the only species of this genus to grow in Victoria. It grows in Westernport and is at its most westerly point in the lower reaches of the Barwon River and its southern limit in Corner Inlet.

Drawing by Peter Strickland

Description by Kathie Strickland

Snippet:

Flora and Fauna Surveys on Private Land

The Victorian Conservation Trust is looking for volunteers to help conduct flora and fauna surveys on covenanted and other conservation areas on private land in Victoria.

The surveys will be planned with a view to giving landholders a better idea of the natural values they are trying to protect and manage as well as giving indigephiles a chance to explore flora and fauna on private land. Some of the surveys will be 'invitation only' and some may be advertised in Indigenotes as general field trips.

The VCT aims to establish a list of people willing to take part in these surveys. If you are interested in joining either or both of these groups please contact James Todd at the VCT on (03) 651 4040 or write to the trust at 49 Spring St., Melbourne 3000.

**Caper Spurge (*Euphorbia lathyris*)
Drawn by Melanie Coupar**

Warning!

Caper Spurge: Handle With Care

Recently, a group of about a dozen 'Friends of the Warrandyte State Park', myself included, were involved in the removal of Caper Spurge (*Euphorbia lathyris*) from a small area of the Park at Pound Bend. At the time none of us were aware of the unpleasant consequences of handling this introduced weed.

Euphorbia is a large genus of mainly tropical plants including the popular and spectacular Poinsettia. In South-eastern Australia there are about fifteen species of the genus. The most common introduced species, certainly around the suburbs, is Petty Spurge (*E. peplus*). This small bright green herb pops up annually in gardens, between cracks of paths and along roadsides. Perhaps less familiar is Caper Spurge (*E. lathyris*), a larger plant with bluish-green sessile leaves.

An infestation of this spurge was first noticed at Pound Bend following a bushfire that swept through the area in February 1991. The plants were discovered growing in soft ground under a stand of Silver Wattles (*Acacia dealbata*) about 20 metres from the bank of the Yarra River. They covered an area of about 40 square metres.

The afternoon on which we pulled the weeds was hot, about 30 C, and many of the group were dressed in shorts and t-shirts. Gloves were available, but due to the heat not everyone chose to wear them. The spurge pulled easily and was bundled into plastic bags. However, in the process of pulling and bagging some of the stems snapped releasing a milky white sap or latex.

Although no adverse reactions were noticed at the time, by the next day everybody who had been exposed to the plant (i.e. those with bare arms and legs) reported some degree of skin irritation. This varied from mild itching and redness to raised wheals and painful blisters. The milder reactions seemed to occur on unbroken skin and the most severe, where the skin had been previously scratched. Two people suffered swelling and erythema (heat and redness) on the face and around the eyes. This reaction probably occurred as a result of unwittingly transferring some of the latex onto the face by hand. Most of these symptoms cleared up within a few days, but in a couple of cases the blisters were slow to heal.

I have subsequently learnt that the milky latex which oozes from the cut stems of Euphorbias is notorious for causing skin and eye problems. But

it seems little work has been done to determine the active ingredient (s) of the latex. However, it is known that Caper Spurge does not lose its toxicity on drying or storage.

Incidentally, the indigenous Flat Spurge (*E. drummondii*), a prostrate annual, also contains a white sap. This was used by Aborigines to treat snake bite and remove warts.

Fortunately none of the 'Friends' suffered any lasting effects from their encounter with the Caper Spurge. And we have learnt from our experience. Next time long-sleeved shirts, trousers and gloves will be the order of the day and hopefully when that day comes it will not be another 30 degree scorcher.

Article by Pat Coupar

References

- Clarke, I. and Lee, H. 1990. Name that Flower. Melbourne University Press, Carlton, Victoria.
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- Mitchell, J. and Rook, A. 1989. Botanical Dermatology. Greengrass, Vancouver.
- S.G.A.P. 1993. Flora of Melbourne. Hyland House, South Melbourne, Victoria.

The Plains Wanderer

A regular column on grassland and woodland conservation. All contributions are welcome.

The restoration shuffle

If ever you need to liven up a boring dinner-party amongst fellow conservationists, the best of topics to promote a fiery discussion is to question the values of restoration. Is it a populist distraction, of little substance or value (a green Bronwyn Bishop)? Or, at the other extreme, could it be the future of vegetation management, especially in regions where only small remnants survive? It's easy to find dinner guests who'll support both views. The truth, no doubt, lies somewhere in between.

Many restoration debates are fuelled by different interpretations of the term, "restoration". What do we mean: weeding the odd *Paspalum* from a fantastic remnant, or converting the local tip to a native grassland or wetland?

The Concise Oxford Dictionary carries a number of definitions for "restore", including "bring back to health" and "bring back to original state by re-building, repairing, ... etc.". One meaning for the noun "restoration" is "a model or drawing representing supposed form of extinct animal, ruined building, etc.". The broad definitions cover a multitude of activities, from weeding *Phalaris*, to re-building the local tip. Perhaps we can simplify the issue by re-defining the terms.

Luckily, we don't have to re-invent a linguistic wheel to refine the debate, as many other groups have dealt with similar issues. Vintage car enthusiasts lovingly restore rusted, gunshot-riddled wrecks to shiny pride. They also build, from scratch, replicas of long-lost models, using original designs, but all new materials. Perhaps conservationists could also distinguish these two activities, restoration and replication. We could then refer to the repairing of existing remnants as restoration, as opposed to replication - building new ecosystems from scratch, based on an idealised model of the original. Then we might restore a depauperate woodland, or build a "replica" of a native grassland or a wetland.

The merits of "restoration" can be debated independently of the merits of "replication". Restoration projects (giving existing remnants a helping hand) can be seen as an integral part of conservation management. By contrast, "replication" projects

have very different starting points (virtually no indigenous vegetation), different problems (sorry, "challenges" - innumerable weeds, horrible "soil") and they often have very different objectives. Many replication projects have innumerable aims including, to quote a recent Indigenotes article, employment creation, community education and urban beautification. Worthwhile as these aims obviously are, none are directly concerned with the biological outcome of the activity.

So, what priorities should we give to restoration and replication? The most obvious advice seems facile. Start with the projects that have the most chance of succeeding. And yet, grassland "restoration" projects always seems to start at the hardest starting point, in the worst sites, with the biggest weed problems and the most species to re-introduce.

We regularly read of admirable ideas to create new grasslands from scratch. Unfortunately, we rarely hear of projects to mend (i.e. "restore") damaged or depauperate, but otherwise intact, remnants. Most vintage car enthusiasts would leap on the most intact wrecks to restore, but grassland restorers seem to delight in the worst.

In depressive moments I occasionally wonder if the spate of "gee-whiz" replication projects is anything more than a modern form of old-fashioned bridge-building. Not bridge-building in the personal, networking sense; but bridge-building in the old-style, arm-waving, "look at me", "we can re-build it" sense: personified by the Premier in a hard hat. Do we really expect to finish the job, or do we most delight in making a big noise at the launch?

Unfortunately, critical discussion of restoration readily draws two flak from two quarters. Firstly it gives the impression that there must be a lot of it happening out there, since everyone is talking about it. In reality, far more time is spent debating the issue than getting out and joining in. The second criticism is that it is easy to fall into dismissive negativity, and to discourage people from doing anything, which is the worst outcome imaginable.

If indigenous urban remnants and rural grassland remnants are to survive, either as replicas, restored or "natural" remnants, we need as many people out working as possible. In this context, it is

stupid to argue an either/or case over restoration versus conservation, or to imply that money devoted to one activity always siphons funds from the other. Both activities often tap into different funding sources, and they often involve different people with different interests.

Most importantly, though, each budding “restorer” makes an individual decision about which projects to get involved in. Should I spend Saturday afternoon at Merri Creek or the Organ Pipes, or Sunday morning at the Sunbury grassland or the Northcote tip? Most decisions are probably made for social reasons. But, if an ultimate aim of these activities is to benefit nature conservation, we also need to consider the potential impact of our labours on the conservation value of the site.

Building a replica ecosystem on an old building site may have many values, including community education and involvement, employment creation, and urban beautification, but in the most pragmatic sense it isn't likely to change the conservation values of the site in the foreseeable future.

If a group of biologists had to rate the conservation significance of a replica ecosystem, using the same criteria as are used on natural remnants, then it is extremely unlikely that any replica will be rated as being of high biological significance (assuming that we don't lose all of the natural remnants in the meantime). Even the most ordinary natural remnant possesses far more native species than can rapidly be established in a replica, without enormous sums of money being pumped into the project. We already have a lot of ordinary remnants, why make more? Instead, why not devote some of that effort to converting an existing ordinary site into a high quality site?

If a small proportion of the work involved in a replication project was devoted to healing existing remnants (i.e. to “restoration” rather than “replication”), then these sites might eventually be transformed to be of extremely high biological significance. A medium quality remnant may be enhanced through weed control and re-planting to become of high value. More importantly, high quality remnants can be maintained as such, rather than being gradually worn away to low quality by neglect. At the moment, hardly any high quality remnants receive enough on-ground management. They desperately need the attention.

So, is “restoration” a useful activity? It's obviously imperative. “Replication” may also be valuable, for social, educational and other reasons, although its biological relevance is probably not as great as is often imagined. But we must ensure that the sites with the best chances of success become the highest priorities for restoration. To revert to our motoring analogy, we have to stop fussing over the

rusted hulks of battered fenders, and choose instead the less ambitious, but reasonably intact, old jalopies in sagging barns. Otherwise, we'll never see our shiny vehicles on the road.

And, just as importantly, we have to have a precise aim in mind when we begin to restore a site or build a replica. The target may never be attained, and it may often be modified, but at least it provides a steady goal to strive for. If our goals for restoration (or replication) are a fuzzy mix of sustainable jobs, warm inner glows, pretty lakes with ducks, Themeda dominance, and a foggy notion of pre-European landscapes, then we haven't a hope of achieving anything.

Hang on a moment. On second thought, perhaps one outcome is both achievable and eminently sustainable: more and more non-restorative dinner parties, dominated by endless, replicated debates.

Ian Lunt
Botany Department
LaTrobe University
Bundoora 3083

Coming events: For IFFA events see back cover

Conferences/Workshops/Talks

25, 26 and 27 March. Envirofest '94 presented by the Banksia Environmental Foundation at Westerfolds Park, Templestowe, an initiative by Melbourne Parks and Waterways. Community and industry groups, government, educational and social organisations come together to promote environmentally sound ways of going about our lives and business. Friday is the day for industry people. Saturday and Sunday is for the general public. Topics include water quality, revegetation, sustainable building technologies, and energy conservation. Music, dance, acrobatics, Aboriginal art and crafts will all make for an enjoyable weekend. For further information ring (03) 532 8611. Adults \$6, Conc. \$3, Family \$12.

25,26 and 27 March. Timelines on the Yarra. What are the significant patterns and rhythms, the major natural events that occur seasonally through the year? Yarra Valley Parks, the Field Naturalists Club of Victoria and Gould League of Victoria are organising a gathering of interested naturalists from the area. Come and contribute your diary records, remembering your sitings and your intuitive hunches on nature's clock, or just come for the oral history and the gathering of data which will give us timelines and storylines of the middle Yarra region. Venue: Paddles Park Mel Ref 34 D2. For more information contact Glen Jamieson on (03) 8465540 and RSVP by phone (03) 8465540 or fax (03) 8464463 or mail to Timeline Weekend, Yarra Valley Parks, PO Box 568, Templestowe 3106.

27 March Sunday 8:30-4:30pm. "**Fencing Project**": **Remnant Vegetation Fencing Workshop.** Toolern Creek, Melton. Includes Lunch, Arvo Tea and Notes. Directions on registration, contact Charley Scherwin or James Ross at VNPA, (03) 6508296.

5 April Tuesday 8pm. **Population Viability and Analysis for Rare Species.** A talk by Mark Bergman organised by the Fauna Survey Group of the FNCV. Contact Ray Gibson (03) 8744408 for details. Venue; The Herbarium, Birdwood Ave, Sth Yarra.

6 April Wednesday 8pm. Talk and Slide presentation by Malcolm Calder on the **Ecology of the Mistletoe** at Steels Creek Community Centre. Contact Stephen Fletcher (03) 7301517 from the Yarra Valley Tree Group.

9 April Saturday 10am. **The Bristlebird and its Habitat.** Well known ornithologist will speak before the working day of The Friends of the Angahook Lorne State Park and Aireys Inlet Coastal Reserve. Meet at the corner of Eaglerock Pde and Beach Rd (Lands End). Bring along gloves secateurs and forks to tackle the weeds afterwards. Contact Ted Faggetter (053) 896 399 for details.

10 April Sunday 9:30-4:30 **Traditional Uses of Indigenous Plants: Food for Thought.** A discussion of

the types of plants gathered and used by Koori people for food, fibre, tools, and art making. On display will be a range of food plants which you will be able to sample. Contact Debra at GAV (03) 6541800 for more detail.

14 April Thursday 8pm. **Action Statements under the Flora and Fauna Guarantee Act.** A talk by Pam Clunie organised by the Botany Group of the FNCV. Contact Joan Harry (03) 8501347 for details. Venue; The Herbarium Hall, Birdwood Ave, Sth Yarra.

18 April Monday 8pm. **Creating naturalistic habitats at the Royal Melbourne Zoo.** An illustrated talk by Barbara Stokes organised by S.G.A.P. Contact Miss E Bowman for details (03) 882 5297. Venue; The Herbarium Hall, Birdwood Ave, Sth Yarra.

29 April Friday, 7:45 pm - "**Review of Revegetation of Organ Pipes NP**". A talk by Geoff Carr organised by the Friends group at Information Centre, Organ Pipes NP. Contact: Carl Rayner (03) 3374936.

4,5,6 October. 1994 **National Greening Australia Conference. A Vision for a Greener City: The Role of Vegetation in Urban /Environments.** Three sub themes: Ecology of Cities and Country Towns, Planning for Conservation and Development and Management of the Environment. Location: Esplanade Hotel, Fremantle, Western Australia. Contact Martine Scheltema (09) 4812144.

Excursions and field trips

12-14 March. The FNCV **Fauna Survey Group is organising a survey camp at Wilsons Prom,** comparing the trapping rate in areas of heathland that have been burnt. They are trying to determine how soon animals return to an area. For further details contact Ray Gibson (03) 8744408.

20 March Sunday. **Walk, Talk and Gawk at the You Yangs Regional Park.** Follow in the footsteps of Mathew Flinders. Koori sites, spectacular views, regeneration after fire and regeneration. BYO lunch. Contact Geoff Durham (03) 5235559.

21-25 March. FO Warrandyte State Park are organising a trip to Wilsons Promontory. A broad range of activities will be covered from long treks to poking around slowly. Camping or accommodation are available. Contact Ron Taylor (03)8444285 or Marg Dimech (03) 8443812.

26 March Saturday. **Leadbeaters Possum Stag Watch** at Powelltown in the Central Highlands. Organised by the FNCV. Please contact Ray Gibson (03) 874 4408 (h) (03) 3721899 (w) for details.

26 March Saturday 10.30am. **Seaweeds and Shore Plants at Flinders.** Botany Group Excursion of the FNCV. Meet at Golf Course Rd Carpark. Mel ref 197 G10. Contact Joan Harry (03) 8501347 for details.

23-25 April. The fauna group of the FNCV are organising an **excursion to the Brisbane Ranges Area.** They will be focussing on the brush tail phascogales, cage trapping and spotlighting. Contact Ray Gibson (03)8744408.

FIRE in Southern California's Endangered Ecosystems

by Craig Beneville

Editor's Note: I saw an article in the Age shortly after the fires (I don't know the date) reporting on an "eminent scientist's" calls for aerial seeding of grasses after the fires in NSW because of the so called catastrophe in the making due to erosion. The absurdity of the concept struck me; erosion may be a problem but where do you get the money, the seed (considering conservation issues), etc. The scientist that was interviewed also showed great ignorance about the fire ecology of native vegetation in NSW. Fortunately, from what I have heard the proposals for aerial seeding in NSW were not implemented. This article from America subsequently came across my desk and it struck me how familiar the whole story is. I hope you find it as interesting as I did.

Southern California is a place that likes to burn. The land has evolved with fire as an integral landscape component. Couple this fact with a history of fire suppression and the blazes that raged through the southland the last week of October come as no surprise.

The fires, 25 in all, burned over 173,000 acres in six counties, fueled by hot, dry Santa Ana winds. Roughly 24,000 acres were coastal sage scrub and mixed sage scrub/grassland. The remaining acreage was chaparral and houses. Over 300 endangered California Gnatcatchers (a small bird) representing 6% of the total population are thought to have perished in the fires, along with 800 Coastal Cactus Wrens (17% of the nation's population).

Perhaps the most significant blaze in terms of sensitive species and habitat occurred in Orange County, where an arsonist ignited the San Joaquin Hills. The fire burned the largest intact area of coastal sage scrub on the coast of California, as well as a bunch of houses in Laguna Beach. It was found to have been started along the proposed pathway of a highly controversial tollroad, leaving local activists wondering about the arsonist's real motivations.

The Reaction

The Transportation Corridor Agency, in charge of building said tollroad, immediately filed to have the present injunction against construction in the area lifted. Their argument: since there are no more Gnatcatchers in the hills there is no legal reason for the injunction to remain, and besides, construction of the road will help contain erosion (?).

One thing the fires did not burn away was entrenched attitudes of the control of nature. Local editorial pages screamed at the type of "overzealous environmentalism" that did not allow extensive weed clearing, reservoir construction, and roadbuilding that "could have stopped the fires".

Following the fire, desperate to "do something" about wild nature running amok, the California Department of Forestry (CDF) proposed massive aerial reseeding of the burned areas in the San Joaquin Hills. The plans immediately drew intense criticism. The seeded plants compete with native vegetation for water and nutrients, hampering its recovery. Although intended for erosion control, the shallow roots of non-native grasses are ineffective. In fact, the grasses actually encourage water-logged slopes to sag from the additional weight. The annual grasses also provide fuel for the additional fires when they die. Ignored is the fact that most of the erosion "problems" are due to sedimentation and bank cuts in watercourses that won't be affected by re-seeding either way.

The outcry was not enough to stop the mad plans, only limit them. Rather than re-seeding the entire 14,000 acres of the San Joaquin Hills burn area, the CDF limited their program to 3,400 acres of urban facing slopes. Instead of using the originally proposed rye-grass they opted for a mix of native grasses and *Zorro fescue*, a European invader. The native grasses were of the genus *Stipa*, and while the species is indigenous to the area, the seed stock was not locally procured and could cause significant genetic pollution.

In other areas the scenarios are much the same. The Forest Service intends to reseed the Ortega fire, within the Cleveland National Forest, with a seed mix similar to the San Joaquin Hills area. The Bureau of Land Management also has plans for re-seeding in San Diego County. *(Editor's Note: Historically, the Forest Service was given the management of forested land in mountains, subsequently emphasising logging activities, while the Bureau of Land Management was given management of low lands in the American west that had few trees and was seen as only suitable for grazing. They aren't well co-ordinated either, the Forest Service is part of the Federal Department of Agriculture while the BLM is part of the Federal Department of the Interior.)*

The Recovery

Despite the blackened moonlike appearance of the land and the short-sighted actions of the government, the land is not dead. It is alive! Left alone it should recover just fine. The spring will bring a carpet of wildflowers, including fire poppies and whispering bells, as well as lupines, fiddlenecks and phacelias. In fact, plant diversity is greatest after a fire. Perennial shrubs will resprout from specially fire-adapted root systems, and vigorous blooming will send forth a rain of seeds, fueling an explosion of seedlings the following spring.

Two to four years from now Deerweed, a nitrogen-fixing shrub of the legume family, will likely dominate. Deerweed converts the nutrients of the ashes into usable form for the plants to follow as well as a nutritious snack for herbivores.

In five to ten years the land will resemble its pre-fire form. South facing slopes will increasingly be dominated by drought-deciduous shrubs and succulents, such as prickly pear cactus, buckwheat and sages. North-facing slopes will likely be dominated by evergreen shrubs, such as Laurel Sumac, Scrub Oak, Toyon and Lemonade Berry. In coastal sage scrub, the initial wave of annuals will have mostly died off with increasing canopy cover. A new wave of annuals begins to appear, however, and species richness continues to climb until 20-30 years after the fire.

Forty years after a fire, plant diversity is greatly reduced; a few shrubs dominate with almost no understory herb content. Some ecologists even consider areas like this senescent; a community in decline until the fire once again renews the cycle of succession.

The Upshot

In order to protect coastal sage scrub and the species within it, fire must be accounted for. Repeated fires can convert coastal sage scrub to grassland, while a lapse in the fire cycle might see the opposite phenomenon. The landscape must be seen as an interconnected mosaic of habitats dependent on each other.

Simply delineating boundaries around coastal sage scrub will not work. Vast areas, *in fact every undeveloped area left in southern California*, must be protected so that the interplay of natural succession has room to take place. In addition, restoration of disturbed lands needs to occur to upgrade linkages. No more "islands"! This will become increasingly critical as the effects of global warming are felt, and plant communities attempt to migrate with changing conditions.

The need for large landscape linkages is further enforced by the serious loss of Gnatcatcher and Cactus Wren populations from the fire. The loss is

not simply one of numbers - genetic variability was also lost with the fires, and with it potential adaptability to future conditions.

Sourced from: The Earth First! Journal, Yule (December) 1993.

Help Fire Victims

Friends of the Diamond Creek are collecting seeds for the NSW bush fires areas.

With Eltham Shire's environmental officer, people will be asked to collect seeds along the creek for bushfire victims' gardens.

Anyone interested should meet at Wingrove Park at 10am. Bring paper bags of any size and a pen or pencil.

Source: Diamond Valley News, 11-1-94

Editor's Note: Pat Vaughan, Environmental Officer for Eltham Shire and IFFA member, was asked about this article a few weeks after the event and it was the first he had heard of the whole idea. Many of us would have had very real concerns about seed provenance issues but they are probably irrelevant considering that a date was not provided in the article for people to meet and actually collect any seed.

Melbourne Parks and Waterways Collects Plants

THE MANAGEMENT OF BUSHLAND AREAS AFTER FIRE

- recent experience in the Sydney Region.

Judie Rawling, Managing Director, Urban Bushland Management, Sydney.

What Burnt

A large part of a Sydney Water Board bush regeneration project area in the Lane Cove River valley was burnt on Thursday, 6 January - an area stretching some 7 kilometres from Brown's Waterhole northward. It was originally thought that a single fire started at Brown's Waterhole and from there it spread up the slopes on either side of the river, but later information suggests that a number of fires were set along the river by someone moving quickly, perhaps on a bicycle.

Most of the understorey was burnt out (as well as several thousand tubestock) and as the wind picked up trees with rough or stringy bark acted as torches to feed the flames into the tree canopy - a classic crown fire. The fires leapfrogged back and forth across the river, but selectively sparing quite large patches of bush along the river, and more predictably detouring around large rocks, clearings and the green lawns around houses.

Bush regenerators were down on the river at first light on Friday and although many trees were still smoking, it seemed that the fires were under control but later that day the fires picked up again, racing downriver to Killara, Lindfield and West Chatswood. Mowbray Park, another regeneration project and unburnt since Boxing Day 1957 (according to a local resident), was almost totally burnt out, the fires stopping just short of adjacent houses. Several residents praised the efforts of bush regeneration teams saying that the removal of large quantities of dead weeds and other rubbish over the past two years had certainly helped save their houses.

Immediately after the fires

Monitoring:

Within 24 hours bush regenerators had established monitoring sites on the Lane Cove River and at Mowbray Park. Photographs were taken and basic data collected; at this point we were not quite sure what to look at, but it seemed sensible to set out transects and quadrats and make some

initial observations. Because we had comprehensive data for each site prior to the fires, we expect to gain a lot of basic knowledge about the recovery of bush after fire - particularly at bush regeneration sites that have been worked over a period of five years or so.

Over the next week, many burnt areas in the northern Sydney region were visited, investigating edge sites where the flames were hindered by creekline vegetation, drainage lines or dense Privet growth. We also looked to see how the dreaded *Pittosporum* fared as we hope to monitor its regrowth (or lack of). Hopefully, some good research papers are on their way.

Regeneration Work and Weed Control:

At bush regeneration sites on the Lane Cove River inspection revealed that the very degraded areas along Terrey's and Devlin's Creek had not been burnt - despite our fervent prayers, so that it was business as usual in all the upper tributaries to prevent weed seed dispersal into the main project areas along the river. This work took on an added urgency as the burnt sites are now open to weed invasion from a variety of sources, not least the weeds in the upper catchment. As an aside we were most disappointed to see that the standing Privet had not been incinerated - the fires had merely blackened the stems and moved on - a great disappointment indeed.

Small teams were sent into burnt areas where woody weeds had not yet been poisoned to drill/poison the burnt stems in situ; these included Privet, Camphor Laurel and exotic vines which had almost certainly not been killed by the fire. Using teams of one or two people was thought to be preferable to sending in larger groups which would have caused damage to regenerating natives and/or the unstable topsoil.

For the first few weeks there was very little in the way of regeneration, but following light rains, the ground in some areas became a green "carpet" - but, what were those tiny seedlings, weed or native? Unless seedlings could be positively they were left to grow a little more. In each team one person was assigned to an area - and each week

that person is responsible for investigating and taking whatever action is required. Again, one person will do less damage than a horde of bush regenerators.

As for the future - "slowly does it" seems to be direction. Investigate, monitor and weed carefully. Reassess continually. Take photographs and record your observations on a regular basis. If weeding is necessary in areas where natives are recovering, stick to one access point and take care not to unduly disturb the soil profile. Keep off steep slopes and riverbanks if possible.

Some comments and observations:

The Predictable Backlash

Within days reports were coming in about bulldozers clearing undergrowth and residents chopping down trees. Understandably people were frightened and possibly many over-reacted. Media hype was probably responsible for a lot of this over-reaction, and if the predicted backlash against conservationists does occur, much of the blame must be laid at irresponsible reporting.

Many people have contacted our office, including local and interstate newspapers and an FM radio station asking for definitive statements on "how to make the bush safe for people", how to "select fire-proof garden plants and other impossible questions. One inquirer even asked me to assign blame - "was it the greenies or the council?"

Everyone wants to get in on the act

Leaving aside multiple newspaper articles and gardening programs aside, and not being one to miss a commercial advantage, a major chemical company hired an advertising agency to promote the use of herbicide to "get in there and kill the weeds" after the fires. Well meaning perhaps, and organised properly of great advantage, but just how many people are going to get out there and spray everything in sight, either in their own properties or over the back fence. The rationale goes - weeds grow back fast after fire, so it follows that all those seedlings must be weeds, so spray them out - a dangerous situation!!

Taking a Positive Attitude:

Driving around the suburbs over the past few weeks has highlighted just how blase

Sydneysiders had become about the dangers of bushfire. Never have so many gutters and backyard rubbish piles been cleaned out so quickly. Land managers and bush regenerators are going to get a lot of flack about pushing the "save the bush" barrow. If we are to further the cause of urban bushland conservation in the long-term, this negative reaction must not be fuelled by our own reactions.

We must approach the argument sensibly and avoid conflict situations and most important, to avoid assigning blame. Avoid the "if you hadn't dumped all that rubbish over the back fence, none of this would have happened" approach. Mind you, it may be true, but it isn't politically astute to say so, nor is it likely to convince these people that urban bushland is valuable.

The most constructive thing we can do at this time is to provide practical advice about replacing garden plants (possibly suggesting large-leaved "rainforest" vegetation for the home garden in vulnerable areas), providing practical help to allow elderly residents to clean up overgrown backyards and providing a free "pick-up" service for weed debris and fire rubbish. Finally, for those people who want to help out in bushland areas, training, encouragement and supervision with bush regeneration projects should be provided.

IFFA activities:

IFFA (Vic)

Next meeting:

Tuesday 29 March at 7:30 pm* at the Herbarium Hall, Birdwood Ave, South Yarra (Melways map 2G ref 12A).

Doug Frood will be speaking on "Victorian Wetlands". Doug has just completed a study of the wetlands across Victoria for the Department of Conservation and Natural Resources. All welcome.

*NOTE THE EARLIER MEETING TIME. Speakers will still start at 8:00, promptly.

Committee meeting:

Thursday 7 April at David Lockwood's, 12 Alexander Avenue, Clayton. 6.30pm onwards.

SPIFFA

Mon 4 April Waterfall Gully Cnty Centre, Cnr Bayview Rd and Nixon St, Rosebud South at 7.30 pm. **James Todd of the Victorian Conservation Trust will speak on the "Land Management Project"**. All welcome. Contact Mark Adams (059)851122.

NSW activities:

Next meeting:

Monday 11 April 7.30 - 10.00pm. **Sally Fisher, owner and manager of Cicada Glen Bush Plants and bush regenerator, will be speaking on 'Planning for a Revegetation Project'**. In the Maiden Theatre, Mrs Macquaries Rd, Royal Botanic Gardens Sydney. Sally Fisher has been involved in the propagation of plants for many revegetation projects over the past six years. She will take us through all the steps involved, from planning a project to the propagation of appropriate species, in order to come up with a realistic program of works. Contact Sally Fisher (02)9706486 (work), Penny Brown or Andrew McGahey (02)9133681 (work).

Membership

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

Membership includes
11 issues of *Indigenotes* per year.

Memberships should be sent to the Membership Secretary. Include your name, address and phone numbers, and a bit about yourself.

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Contributions to *Indigenotes* should be sent to the editors — the deadline for the next issue will be Friday 1 April.

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

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