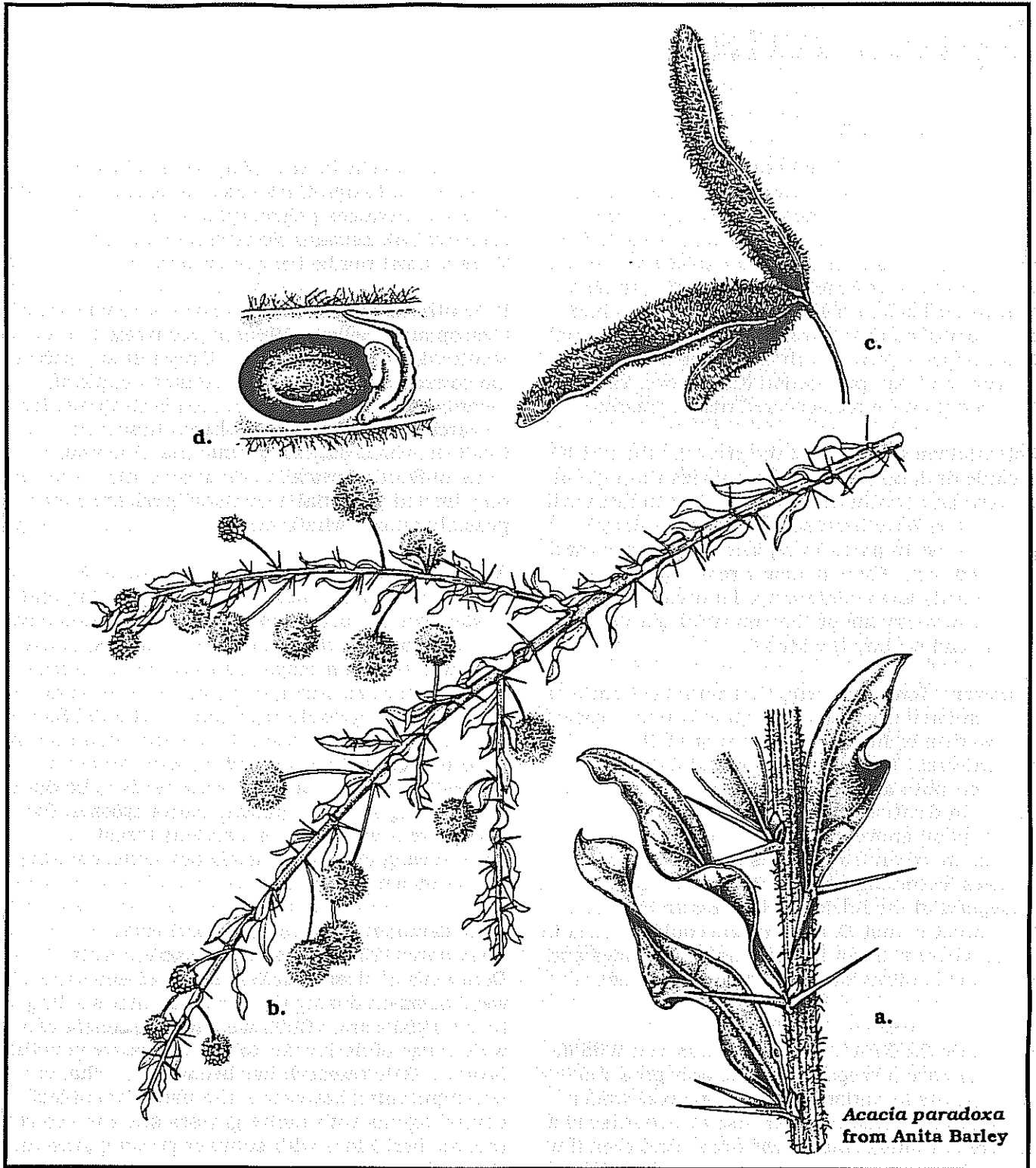


INDIGENOTES



Commercial Seed Production of *Danthonia*

By Russell Starr*

Early in 1989 the CSIRO put out a press release about a joint venture between their Division of Plant Industry and Hodder and Tolley for the commercial production of *Danthonia* seed. After four years of research *D. richardsonii* was chosen for commercial release. It is interesting to note that as far back as 1932 this same species had been identified at the Waite Agricultural Research Institute as a grass worth exploiting for dryland pasture and hay production (Cashmore, 1932). We seem to have rediscovered native grasses.

Potential uses quoted for the grass by the CSIRO include dryland parks and roadsides throughout eastern and southern Australia. It is in fact what many of us have been screaming for, a native grass to use in parks to replace mown weeds and irrigated turf. There is now a real potential to create truly low maintenance landscapes without having to worry about the perennial question of 'where can we buy the seed?'

However, I have real fears that unbridled enthusiasm, marketing tactics and ignorance may generate overuse or inappropriate usage of *D. richardsonii*. The two main potential threats are invasion (into areas it was previously unknown), and hybridization. The enthusiasm of some native plant growers to plant interstate trees and shrubs in urban fringe areas has led to some 'natives' becoming weeds. *Pittosporum* and *Acacia baileyana* in the Adelaide Hills are an example. The threat is that *D. richardsonii* could be used in areas where it is not indigenous and invades and overruns habitats occupied by other species of grass.

Currently the NPWS (National Parks and Wildlife Service) have a responsibility to only grow indigenous plants in national parks. So areas under their control could not even use *D. richardsonii* if it were not indigenous to the area. And even if it were, the question remains as to whether there are different subspecies that are specific in their location or range. You then have the potential problem of swamping the genetic pool of naturally occurring subspecies by introducing a commercially grown subspecies. This then raises the issue of hybridization. Fortunately Cashmore (1932) states that "an outstanding feature of the group (*Danthonia*) is the absence of intercrossing"

*Greening of Adelaide, S.A. Department of Environment and Planning, 22 Oraston Ave, Brighton S.A. 5133.

and that "no single case of hybridism has been observed, although Cockayne and Allan state that *D. pilosa* produces polymorphic swarms of hybrids with *D. semiannularis* in New Zealand". Thus it must not be completely ignored.

In South Australia *D. richardsonii* is only recorded (Jessop and Toelken, 1986) as occurring in the southern Lofty Ranges area. If my memory serves me correctly, this is only based on a couple of records, one of which being the plants grown for research at the Waite Agricultural Research Institute which originally came from Victoria. Thus in South Australia this species may have only limited potential in national park areas or possibly no use whatever.

Another potential problem is selection of *D. richardsonii* for dryland landscapes thinking that it will solve all maintenance problems. *Danthonia* are principally spring and early summer growers. Although they can respond to summer thunderstorms, they are principally dormant over summer. Thus they could represent a potential fuel load for fires if not mown. Is this then contrary to what is intended for dryland 'natural' landscapes"? I feel that a lot of work needs to be done on selecting summer growing native grasses, for use in areas where fire is a serious threat, to avoid having to do what is already done, creating boring mown parks.

Establishment may also pose problems. Cashmore (1932) refers to the problem with *Danthonia* of slow establishment and excessive weed invasion during the first year after seeding. In the 1980's and 1990's we have the benefit of a wide range of herbicides to allow selective growth, however little research has been done. What is worth pursuing however is the use of broad leaf control agents with native grasses and the use of triazine herbicides with summer growing grasses. But without some innovative work by some people in this area, workers in the field will undoubtedly become frustrated trying to establish weed free native grass stands to the point of abandoning the idea.

A potential benefit of the commercialization of *D. richardsonii* is that it will whet the appetite of park managers for other native grasses. The press release from CSIRO indicated that within the next few years it is hoped that other species

Australian Grasses Study Group

I first heard of the Australian Grasses Study Group when the editor of its Newsletter rang to ask permission to reproduce an article from Indigenotes. I gave him permission providing he acknowledged the source, and sent me a copy.

On receipt of the copy of their 27 page 'Newsletter' I was most impressed. The article on the left was included as well as an eight page review of the harvesting of native grasses which forms the first in a three part series on the current technology for harvesting, processing and sowing native grasses. Other articles included a brief description of Themeda establishment trials at Mooramong in Victoria, a synopsis of a talk on Australian grasses in cultivation, feature plant (a review of one grass species, in this case *Poa labillardieri*), a report on their seed bank, and selections from their recent correspondence regarding grasses, and snippets on herbicide, productivity and propagation trials, publications, and display gardens.

As those who know SGAP (vic) would understand, members of SGAPs have mostly been unaware of the importance of planting indigenous species grown from local stock, but that their awareness of this issue is growing. This mixed awareness is reflected in the Grasses Study Group's newsletter. There is a clear interest in the use of grasses for ornamental planting, and pasture, without sticking to indigenous species, and yet an emerging feeling that care must be taken, and revegetation requires indigenous stock. Providing this is understood, IFFA members interested in grasslands would find the Newsletter very useful.

Membership fees for the Australian Grasses Study Group are \$5 per year, payable in June. To become a financial member however, one must also be a member of SGAP (the Society for Growing Australian Plants). Members receive the quarterly newsletter and have access to the study group's seed bank.

Enquiries for membership of SGAP (Vic) should be directed to:

**Mrs Ewena Gallagher,
'Glencraig', Ridge Rd,
Kalorama Vic 3766.
Phone (03) 728 5647**

Enquiries for membership of the Australian Grasses Study Group should go to:

**Dermott Kelly,
6 Willcox Avenue,
Prospect. S.A. 5082.
Phone (08) 344 9400.**

— Ed.

suitable for landscaping will be released. What we don't want is a blind adoption of *D. richardsonii* for all purposes, only to find it not suitable or inappropriate or it creates management or genetic disasters and thus causes a backlash against native grasses.

What is needed, in parallel to the commercial production of native grass seed is research into general principles of harvesting, establishment and maintenance for different genera. This would then allow park managers, after selecting the most appropriate species for their situation, to go out and get the grass, either from commercial sources or the wild. This is in preference to trying to use *D. richardsonii* for all situations.

With respect to *D. richardsonii* and its current commercialisation I feel that its potential must be spelt out with more care. It has, of course potential as a pasture grass in areas of low fertility. This was identified way back in 1932. The next potential use is in non-irrigated parks in urban areas away from bushland. This is to prevent genetic dilution of local subspecies and invasion of bushland. In urban fringe areas, rural parks and national parks it would be more appropriate to use locally indigenous grasses.

With respect to roadsides (as mentioned in the press release) I have mixed feelings. It may be more appropriate to use *D. richardsonii* than rye grass in many situations. However, my comments with respect to parks are just as relevant for roadsides. In the end each case must be evaluated independently by competent technical staff. Let's hope that research and development of the management and commercialisation of more native grasses quickly follows the release of *D. richardsonii* before too many mistakes are made.

References

- Cashmore, A.B. 1932, 'An investigation of the taxonomic and agricultural characters of the *Danthonia* group' *CSIR Bulletin*, no. 69, pp. 23
- Jessop, J.P. & Toelken, H.R. 1986, *Flora of South Australia*, part IV, South Australia Government Printing Division.

Reproduced with permission from the Newsletter of the Grasses Study Group of the Association of Societies for Growing Australian Plants.

Plants of the Basalt Plains.

The basalt plains of western Victoria cover a vast area of some 17,500 sq. kms. They reach their eastern limit at Melbourne on the lower Yarra River and most of the country west of a north-south line through Melbourne is part of the basalt plains. In this region the rainfall is rather low because of rain-shadow effects.

The undulating basalt plains which are of recent volcanic geology, have scattered low hills representing old volcanoes and ridges formed by the flow of lava. Where streams such as the Merri Creek have cut through of along flows of lava, cliffs and steep rocky terrain are often found.

Soils of the region are mostly fertile, dark brown, clay-loams. However they are usually deeply cracking in summer, and very stiff and unworkable in winter.

The original vegetation of the basalt plains was remarkably beautiful though so little now remains that we will only ever have a fragmentary knowledge of it. Grazing and cultivation of the land commenced from the beginning of European occupation and it was rapidly and completely settled. Today the vegetation communities of the region are all but extinct and those few hectares remaining are excessively degraded. Almost nothing has been available for conservation. Many of the plant species are also extinct, at least regionally and many more are on the brink of extinction.

The region originally carried vast tracts of grassland or very open, grassy woodland. Vegetation dominated by trees and shrubs was best developed along the rivers and associated cliffs and slopes. Seasonal (rarely permanent) swamps also occupied extensive areas.

Herbaceous plants rather than woody species dominated the vegetation. Of the 560 odd species recorded from the entire volcanic plains, 85% are herbs. Kangaroo Grass (*Themeda australis*), forming a waving sea of warm brown seed heads in summer, was the overwhelming dominant of the grassland vegetation. Many other grasses such as Wallaby-grasses (*Danthonia*), Spear-grasses (*Stipa*), and Tussock-grasses (*Poa*) played an important part. These were mostly perennial tussock-grasses.

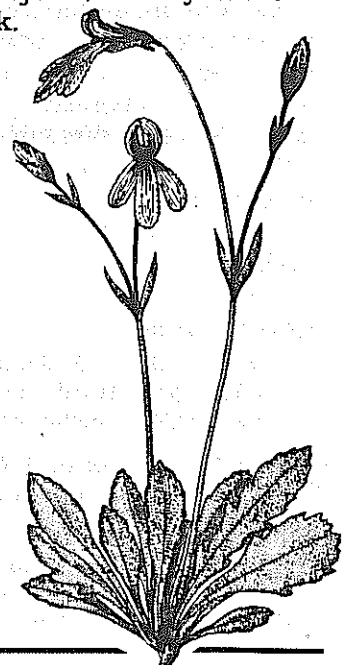
Colour in the grasslands was provided by an array of mostly perennial herbs, which in the pristine vegetation would have been breathtakingly beautiful. These wildflower gardens would have

rivalled the best floral displays anywhere in Victoria with everlasting, daisies, peas, buebells, featherheads, goodenias, lilies, orchids and many more. Yellow, white and cream were the dominant colours - provided mostly by the daisies, everlastings and related plants (eg *Calotis*, *Heli-chrysum*, *Helipterum*, *Brachycome*, *Calocephalus*, *Miruria*, *Leptorhynchus*, *Craspedia*). Other yellow flowers included *Tricoryne*, *Goodenia* and *Velleia*. Pink (*Corvolvulus*, *Pelargonium*), red (*Kennedia*) and blue (*Eryngium*, *Wahlenbergia*) were less frequent but dramatic additions.

Plants of the swamps, ranging from true aquatics to those of seasonally waterlogged sites, were equally colourful and like the grassland plants with a superb range of textural qualities.

Red Gum (*Eucalyptus camaldulensis*) was the largest, most widespread and characteristic tree associated with the volcanic plains. Some fine specimens are still to be seen in Melbourne parks. Other common trees included Drooping She-oak (*Allocasuarina verticillata* - previously *Casuarina stricta*), Lightwood (*Acacia implexa*) and Blackwood (*A. melanoxylon*). Shrubs, of which the Shrub Violet (*Hymenanthera dentata*) is most typical, were few and mainly found in rocky places.

In recent years there has been an increasing interest in growing plants from the basalt plains. This has arisen as a result of the realisation of the horticultural qualities of the flora (for ornament and utility), as an essential means of affecting conservation of the many endangered species and because of revegetation projects, notably at the Organ Pipes National Park.



Velleia paradoxa (x0.5)

IFFA receives assistance from CFL for Journal

IFFA was recently notified that money was available for two projects for which it applied for grants last year.

\$700 was offered to us for an awareness campaign on environmental weeds in the Dandenongs in conjunction with Montrose Environment Group. See below for details.

\$2000 was offered to us to assist in setting up our new journal *Advances in Nature Conservation*. This sum was approximately half of what we asked for, but may be supplemented by grants from other arms of government. The first issue of *Advances in Nature Conservation* is currently in preparation, and although running late, will be assisted by the provision of the grant.

Alien shrub runs riot in Hawaii

New Scientist (17 March 1990 p12) reports that Hawaii's native flora is being devastated by the combined efforts of two immigrant species. The immigrants, a shrub and a bird are already badly affecting two islands in the chain - Hawaii and Maui.

The shrub, known as the faya tree (*Myrica faya*), is a native of Madeira, the Azores and the Canary Islands. It both poisons and out-competes native Hawaiian species. It is assisted in its conquests by the Japanese white-eye (*Zosterops japonicus*), a bird from Asia which spreads the berries of the tree, and pass the seeds, undigested when they perch on trees and shrubs.

Because of problems with herbicide use and the immensity of their problem, rangers at the badly affected Hawaii Volcanoes National Park have turned to Biological control agents to control the faya tree.

Its clear that not only in Australia is this powerful combination of a competing weed species with a bird vector a problem.

Calling all horticulturists

IFFA and Montrose Environment Group have received a small grant for mounting an environmental weeds campaign directed at nurseries, gardeners, landscape architects and so on. The message will be that even beautiful flowers can be weeds and should not be used for horticulture.

The campaign is to climax with a seminar and bus trip this coming spring. Rodger Elliot and Geoff Carr will be key speakers at the seminar.

Volunteers are needed to prepare articles or publicity for trade magazines and the news media, or to help organize the seminar.

Please offer assistance by ringing Graeme Lorimer on (03) 728 5841

Conservation victory at Tereddan Drive

The *Montrose Environment Group Newsletter* reports that arguably the most valuable 5 acres of land in the Montrose district, as far as nature is concerned, was bought in March for a nature reserve. A ceremony was held for the purchase of Lot 8 Tereddan Drive, Kilsyth South, Victoria, bringing to a climax a year-long campaign by the Montrose Environment Group (see *Indigenotes* 2-11).

The cost of just over \$200,000 has been met by \$7000 of donations through MEG, \$20,000 through the Victoria Conservation Trust, and the remainder equally divided between the Shire of Lillydale and the Department of Conservation, Forests and Lands.

The block is a home for 133 known species of native plants, many of them rare. The Swamp-gum vegetation community has become almost extinct. Bird life is abundant.

The new reserve, along with around 20 acres of adjacent public land, provides a very substantial and accessible sanctuary of State significance.

Management of the reserve will be administered by a committee of management with representation by the Shire, the Dept. of CFL, the Dandenong Valley Authority and the local community.

Coming Events

APRIL

- 21 Sat. **Friends of Churchill National Park and Lysterfield Lake Park.** Maintenance of remnant habitat. Neal Smith (03) 873 2635.
- 21-22 Sat-Sun. **Australian Trust for Conservation Volunteers.** Weed eradication at Yarra Bridge (03) 583 3388.
- 22 Sunday. **Earth day!**
- 22 Sun 11am. On site meeting and rally for **COOPER ST GRASSLAND.** Find out where issue is at the moment and show strength of support. Dave Taylor (03) 489 0507.
- 22 Sun 2-4pm. **Earthday tour. Revegetation of Eastern Freeway boundary.** Organised by Green Link Camberwell. Meet at end of Balwyn Road, Melways 32, F 12. Dianna Burgess (03) 809 2092.
- 22 Sun 10am. **Brunswick Tree Group** activity day. Meet end of Union St, adjacent to Moonee Ponds Creek. Eric Ward (03) 412 4768 (bh).
- 22 Sun 2 pm. **Friends of Victoria's 1st Settlement site** - Sorrento. Stuart Sherrin (059) 84 1953.
- 22 Sun 10am-1pm. **Nunawading Indigenous Plants Project** - workshop. Nunawading Council Horticultural Centre, 82 Jolimont Rd., Forest Hill. Les Smith (03) 874 2641.
- 23-27 Mon-Fri. **Healesville Sanctuary,** tree planting and guarding (also on 30 April - 4 May). ATCV (03) 583 3388.
- 23-27 Mon-Fri. **Sovereign Hill,** environmental reconstruction. ATCV (053) 327 490.
- 23-27 Mon-Fri. **Eltham,** tree planting. ATCV (03) 583 3388.
- 23-27 Mon-Fri. **Mirboo,** tree planting. ATCV (03)583 3388.
- 24 Tues 8pm. **IFFA meeting.** For details see back cover.
- 24 Tues 7.30pm. **Spiders.** Friends of Gould League natural history program. With field trip on 29/4/1990. Sheryl Richards (03) 51 1493(bh).*
- 24-11 May. **Kakadu National Park,** environmental survey for OSS. ATCV (054) 416 666.
- 25 Wed 7.30pm. **Bush birds.** Friends of Gould League natural history program. With field trip on 26/5/1990. Sheryl Richards (03) 51 1493.*
- 25 Wed 10am. **Friends of the Yarra** working bee at Galatea Point. Contact Judy Rutherford (03) 347 2252.
- 26 Thurs 10am. **Friends of Warrandyte State Park** propagation day. Meet at the depot. Ian or Margaret Burke (03) 844 1060.
- 27 Fri 8pm. **Nocturnal Birds and Animals of the northern Dandenong Ranges,** by Ed McNabb. Montrose Environment Group. At the Montrose Tennis Club. Graeme Lorimer (03) 728 5841.
- 28 Sat. Botany Group excursion of FNCV. **Six zones of coastal plant associations.** Tyabb, Hastings and Crib Point. Leader; Stefanie Rennick. Contact Margaret Potter (03)292779.
- 28 Sat 2pm. **Montrose Environment Group** roadside revegetation and weeding - Cambridge Rd. Graeme Lorimer (03) 728 5841.
- 28 Sat. **Lancefield,** tree planting. ATCV (03) 583 3388.
- 28 Sat 1.30 pm. **Moorooduc Quarry Reserve** project day, picnic reserve. Mount Eliza Association for Environmental Care. Melways map 106, ref A7, meet at Two Bays Road. Contact Anne Read (03) 787 2034
- 28 Sat. **Friends of Sherbrooke Forest,** regeneration and/or survey work. Vivien Freshwater (03) 754 3093.
- 28 Sat. **Museum workday of Marine Research Group** of Vic. Interested people are asked to enquire about membership and to ring a few days in advance to confirm arrangements for the day. Frank Kearney (03) 398 3988 (H), (03) 391 2588 (Bus).
- 28-29 Sat-Sun. **Goorambat,** tree planting. ATCV (054) 416 666.
- 29 Sun 10 am **Mount Eliza Association for Environmental Care** project day. See 28 April.
- 29 Sun. **Mt. Macedon,** bush regeneration/weed eradication. ATCV (03)583 3388.
- 29 Sun 10am-4pm. **LaTrobe University Wildlife Reserves Support Group** activity day. George Paras (03) 479 2871.
- 29 Sun. **Walk Talk and Gawk - Point Addis.** By Victorian National Parks Association. Full day excursion and walk. Wendy Morris (03) 818 6102.
- 30 Mon 7.45pm. Meeting of **Marine Research Group of Victoria.** Theaterette of the Museum of Victoria. For membership or enquiries, contact Frank Kearney (03) 398 3988 (H), (03) 391 2558 (Bus).
- 30-6 May Mon-Sun. **Phillip Island** tree planting and maintenance. ATCV (03) 583 3388.
- 30-4 May. Mon-Fri. **French Island** tree planting (also on 7-11 May). ATCV (03) 583 3388.

MAY

- 5 Sat. **Friends of Gellibrand Hill Park** activity day. Kerryn Pratchett (03) 306 8180
- 5 Sat. **Friends of French Island State Park** activity day. Contact Des Quinn (03) 791 2315.
- 5-6 Sat-Sun. **Metcalf,** tree planting. ATCV (054) 416 666.
- 5-6 Sat-Sun. **Lexton,** tree planting. ATCV (053) 327 490.
- 6 Sun 1pm. **Friends of Langwarrin Flora and Fauna Reserve - Walk Talk and Gawk** organised in association with VNPA. Meet at the McLelland Drive car park, Melways map 103, ref C10. Contact Leon Costermans (03) 783 5015 or Geoff Durham (03) 523 5559.

- 9 Wed. **Friends of Sherbrooke Forest** project morning. Vivien Freshwater (03) 754 3093.
- 10 Thurs 8pm. **Botany Group** meeting of the **FNCV**. National Herbarium Hall, Birdwood Avenue. Contact Margaret Potter (03) 29 2779.
- 10 Thurs 10am. **FOWSP Koala count**. See 27 April.
- 12 Sat 9.30. **Friends of Organ Pipes N.P.** working bee. Meet at the workshop. Robert Bender (03) 49 2413.
- 12 Sat. **Friends of Dandenong Ranges N.P.** Clearing introduced species. Graham Barstow (03) 758 6935.
- 12-13 Sat-Sun. **Stawell**, tree planting. ATCV (053) 327 490.
- 12 Sat. **Friends of Nepean Parks**. Meet at Seawinds. Bill Nicholson (059) 81 1605.
- 13 Sun 2pm. **Friends of the Point** (Pt. Nepean) project afternoon. Weed eradication planting and fortifications study. Meet at the Orientation Centre inside the Park. Stuart Sherrin (059) 84 1953.
- 13 Wed 10 am. **Friends of the Yarra** working bee at Galatea Point. Contact Judy Rutherford (03) 347 2252.
- 13 Sun 9-11.30am. **Stony Creek weeding group**. Mark Gardner (03) 844 3799.
- 14-18 & 20. Mon-Fri & Sun. Tree planting at **Eltham**. ATCV (03) 583 3388.

14-20 Mon-Sun. **Arbour Week**.

Over 40 sites have been nominated throughout the Melbourne metropolitan area, involving virtually all municipalities and several rural districts. Assistance with the coordination of the plantings or supervision on the day very welcome. For information or details about these sites contact the Tree Project (03) 370 1863.

- 19 Sat. Friends of Werribee Gorge and the Long Forest Mallee project day. **Long Forest tree planting**, Djerriwarrh block and maintenance. Judy Douglas (053) 67 2672.
- 19 Sat. **Friends of Churchill National Park and Lysterfield Lake Park**. Restoration of remnant habitat near Dandenong Ranges. Neal Smith (03) 873 2635.
- 22-25 Tues-fri. **Conference: Sowing the Seeds**. Greening Australia Ltd, Direct seeding and natural regeneration conference. A conference including a field day on one of the most important emerging technologies in the battle against land degradation in Australia and around the world. Adelaide Convention Centre, Sth Australia. For further information contact Rob Youl (03) 650 9424 (bh).
- 23 Wed 7.30pm. **Fungi**. FOGL Natural History Program, with field trip on 26/5/1990. Gould League (03) 51 1493.*
- 26 Sat 1.30pm. **Moorooduc Quarry Reserve**. MEAFEC. See 28 April.
- 26 Sat 10am. **Planting at Deep Rock**, Melways 2D D6. Men of the Trees, 898 1364.
- 27 Sun 10 am **MEAFEC** project day. See 28 April.

- 27 Sun 10am-4pm. **LaTrobe University Wildlife Reserves Support Group** activity day. George Paras (03) 479 2871.
- 27 Sun 10am-1pm. **Nunawading Indigenous Plants Project** - workshop. Nunawading Council Horticultural Centre, 82 Jolimont Rd., Forest Hill. Les Smith (03) 874 2641.

29 Tues 8pm. **IFFA meeting**. For details see back cover.

JULY

- 4-5 Wed-Thurs. Conference: **The Otways - Fauna and Flora - their conservation and management**. Deakin University, Geelong. Enquiries: Barbara Wilson (052) 47 1265, Martin Westbrooke (053) 33 9213.
- 11-15 Wed-Sun. **Fifth International Earth Education Conference**. Birrigal Outdoor Centre, Tharwa, ACT. Includes speech by Steve Van Matre, author and Cairman of IEE. For further details about the conference or the IEE contact The Institute for Earth Education, GPO Box 124A, Melbourne, 3001, phone (03) 499 6659.

AUGUST

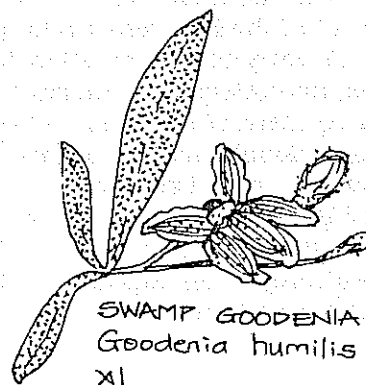
- 6-10 Mon-Fri. **9th Australian Weeds Conference**. Adelaide Convention Centre. For further information, contact: D. W. Stephenson, S.A. Dept. Agriculture, Box 1671 GPO Adelaide, 5001.

SEPTEMBER

- 27-28 Thurs-Fri. **Humpback Whale Conference**. Queensland Museum. For further details or registration form contact Dr Robert Paterson, Convenor, Queensland Museum Humpback Whale Conference. PO Box 300, Sth Brisbane, Qld, 4101.

A large range of activities such as bushwalks and "Friends" activities are published by the Victorian National Parks Association in their newsletter. For details contact V.N.P.A. (03) 654 6843.

- * Each lecture has a \$7.50 charge, including excursion where offered or \$50 covers the 10 month program.



SWAMP GOODENIA
Goodenia humilis
x1

from Andrew Paget

Snippets:

Mallee parks almost

According to the Victorian National Parks Association and The Wilderness Society, The Victorian Government has announced major new National Parks and other conservation measures for the Mallee including:

- **602,520 ha Murray-Sunset National Park,**
- **large westward extensions to Wyperfeld National Park,**
- **new reserves for flora and fauna,**
- **termination of broombrush cutting on public land.**

The two groups warn however that the government has also proposed

- **continued stock grazing over large parts of the Sunset Country and for up to 6 years inside Parks,**
- **a continuation of gypsum mining on public land, and**
- **has failed to recommend protection of some important areas.**

Parliament may weaken these recommendations, especially to perpetuate grazing inside national parks. IFFA members could help conserve the Mallee area by lobbying Liberal MP's especially members of the upper house in Victoria, expressing their support the new parks and reserves with additions to include all of the Big Desert and Sunset Country in conservation reserves, and adequate funding for management of new and existing national parks. Continued grazing, broombrush cutting and gypsum mining on public land are unacceptable, along with any other exploitative activities in Parks.

Another Minister and another reshuffle for Conservation

We wait with baited breath to see how Steve Crabb, the new Victorian Minister for Conservation, Forests, Lands, Tourism and Environment (that's probably not the final title) will perform.

Since the large swing in Victoria against the ALP in the recent federal election, and the subsequent shake-up of the Victorian cabinet and ministries, environment has been split from the Ministry for Planning and Environment and joined with the Ministry for Conservation Forests and Lands along with Tourism. The inexperienced and apparently weak ex-Minister for CFL Kay Setches has been moved to Community Services, to be replaced by Steve Crabb, a more senior and powerful figure in cabinet, although with unknown conservation views.

Tom Roper, the ex Minister for Planning and Environment has been shifted to Treasurer. A new role of Urban Growth has been added to the remaining planning functions of MPE, along with Arts. The new Minister for this portfolio will be Andrew McCutcheon, who apparently has specialist skills and knowledge in urban planning.

When the dust settles, what will this mean for us? There is a danger that the innovative staff of Environment will be dispersed and squashed by the conservative bureaucracy of CFL. Another danger is that disputes between CFL and MPE, previously open for public scrutiny, will now be internalised and hidden. Monitoring and enforcement roles should be kept separate from develop-

ment roles for this reason. Commercial forestry ideally would be banished from the Ministry altogether, perhaps going to Agriculture.

The final details of what goes where have not yet been worked out, but rumour has it that one option being discussed for the new super ministry would divide it into 4 divisions:

Environment - bringing together perhaps National Parks and Wildlife Division with other conservation-oriented subgroups of MPE and CFL;

Resources - containing the on-the-ground management sections;

Administrative, and Research,

grouping units by their process rather than content (such as fish or forests). The Commissioner for the Environment must remain independent of the super ministry, and would be best set up as a statutory Authority.

All this remains to be seen, but we wish the new Minister the best, and hope that he has the long term perspective to see the importance of conservation, and won't just rely on political expediency.

STOP PRESS! The first major announcement from the new Minister announced the cancellation of big expansion plans for ski resorts in the Victorian Alps. But don't breathe easy, he didn't do it for conservation reasons.

Go-ahead for logging in rainforest coupes

According to an article by John Carruthers in *The Herald* of 3 April, Kay Setches gave the go-ahead to logging in 80 disputed coupes in Victoria. The coupes were rated as State and National significance by the Rainforest Project Team of the Flora and Fauna Survey and Management Group after surveying all sites in Victoria and allocating them a level of significance. The Rainforest Project Team recommended that no logging occur in the catchments of the high significance occurrences of rainforest, but logging will only leave a buffer of 40 m. The Lands and Forests Division of CFL have given Steve Crabb a hot issue here.

Native Grasses wins

At the recent State Conference held by the Royal Australian Institute of Parks and Recreation entitled "Management of Amenity and Sports Turf", there were two concurrent sessions: Native grasslands, and Sports Turf. A large room and a small room were available for the concurrent sessions, and the organizers asked the assembled delegates to indicate with a show of hands which stream they were interested in going to, so that the appropriate rooms could be allocated.

Much to everyone's surprise, almost 80% of the delegates wanted to attend the Native Grassland sessions. Hooray!

Weeroona Garden guide

The Victorian Indigenous Nurseries Coop has recently planted a garden of indigenous plants of the northern region of Melbourne which were used by the local Wurundjeri tribe for food, medicine or other uses. The garden was established at the Low Energy House, at CERES in Lee St, East Brunswick, Victoria, which is a joint project between CERES and the City of Brunswick Electricity Supply Department.

A guide to the garden has been produced by the Electricity Supply Department with the assistance of the Aborigines Advancement League.* Most of the species in the garden are illustrated, and are briefly described. The known uses of the plant are listed. Regrettably, the Koorie names for the plants were not included along with the scientific and common names.

The guide is available from the Brunswick Electricity Supply Department, 209 Stewart Street, East Brunswick Vic 3057.

The City of Brunswick Electricity Supply Department, c. 1989, A guide to Weeroona Garden, 12pp.

Sherbrooke Forest success with Asparagus

Friends of Sherbrooke Forest report that their treatment of an area infested with Asparagus fern has been more successful than expected. Work at the site started in February 1988. There were two main infestations where the asparagus was smothering everything in its path. On return to the site in February on a recent project morning, FOSF members were expecting to find hundreds of tiny asparagus seedlings to be dug out, but were pleasantly surprised to only find some scattered plants, plus some larger plants which had been missed earlier. Further surveys have showed that this weed is more widespread than was first thought, but work to date has showed that this weed can be controlled.

Asparagus Fern (*Myrsiphyllum scandens*) is a rampant twining creeper with tuberous roots, small white flowers in Spring which produce green berries that become orange-red when ripe (late summer). A popular hanging basket plant. The seeds are carried into the forest by blackbirds feeding on the ripe berries. The plant is a member of the Lily family and develops masses of tuberous roots.

Friends of Sherbrooke Forest recommends* that the best method of removal is to use a garden fork to dig out and completely remove the masses of tuberous roots from the soil. A two-pronged daisy digger is suitable for removing small seedlings. Secateurs are often needed to cut the twining stems from other plants. If working in the forest, any berries should be removed, and all soil should be shaken from the roots before the plant is hung in a suitable tree. If the weeder is short of time, twining stems should be cut from delicate plants, and berries removed, with the rootstock left for a return visit. Winter and spring are the most effective time of year to remove Asparagus because when the soil is moist the tubers are easily dug out. Care should be taken to make sure the roots are free of soil before the plant is hung up.

There are two other Asparagus species commonly grown in hanging baskets. Although they are not found in the Sherbrooke Forest yet, FOSF warn against growing them outside. Another Asparagus species (*Myrsiphyllum asparagoides*) known as Smilax is a rampant weed in many parts of Victoria.

Forest Focus no. 54 p5.

Statewide planning protection for native vegetation

The Ministry for Planning and Environment's planning amendments for protecting native vegetation have been exhibited for several months up to 6th April. There have been many objectors who want to retain their freedom to clear land, and apparently few supporters. Did you do your bit?

IFFA SUBMISSION REGARDING PROPOSED AMENDMENTS S5 AND S6

We congratulate the Ministry for its initiative in preparing the proposed Amendment S5 for regulating clearance of natural vegetation. The purpose of this submission is to (a) highlight the excellent concept and rationale of the amendment, (b) make some suggestions which we think will refine the amendment or help support it through non-regulatory mechanisms, and (c) point to some inconsistencies which seem to have arisen through the introduction of Amendment S6.

The Concept

Up to the time Amendments S4 and S5 were announced, our organization had been seeking a way to stem the tide of our rapidly receding natural vegetation. We therefore received the news with great pleasure, since our objectives and those of S4 and S5 coincide. In particular, we have been very conscious of the value of natural vegetation for all the reasons given in the Ministry's documentation accompanying the amendments, and no group is more aware than ours of the urgency to act against its rapid depletion.

Naturally, we also place a very high importance on redressing the destruction of natural vegetation by revegetation with indigenous plant stock (not just any plants), so it is pleasing to see this concept embodied in the Ministry's 'Planning Guide for Native Vegetation Regulations' (Nov. '89, p.7). It is also refreshing to see there adequate recognition of environmental weeds as a threat to natural vegetation.

In fact, we support all the arguments presented in that document for why an amendment of this kind is needed, and all the guidelines for how Amendment S5 ought to be administered (including suggestions for conditions on permits). Our suggestions for change relate only to details of the schedule of exemptions (particularly those introduced through S6) and some pointers to where other government activities or programs might assist in meeting the objectives of the amendments.

In the latter connection, we want to reinforce that outright removal of vegetation is only part of the problem, and that incremental destruction through such activities as drainage of swamps and grazing of natural vegetation is also important. It is good to see MPE,

CFL and DARA jointly drawing attention to the various government assistance programs for landholders, in 'Looking after Victoria - Protecting our Trees and Bushland' (Nov. '89). The rate and tax concessions are extremely important, and we hope that such measures will strengthen further. It might also be useful to mention in future literature the concept of Environmental Living Zones, along the lines employed for the Bend of Isles by Healesville Shire, as well as a possible permit condition which requires active maintenance of retained bushland.

Any government initiatives which serve to ameliorate incremental loss of natural vegetation will have our support, and will be useful companions to the natural vegetation retention amendments.

One initiative which would certainly help with the implementation of the native vegetation retention regulations is a data base of all known Sites of Significance. This might form part of a Council's GIS, or at least a register and set of plans on paper. The work of the Upper Yarra Valley and Dandenong Ranges Authority are exemplary in this regard.

The Exemptions

We had a few suggestions for improvement of the exemptions in Am. S5, but the number has grown with the changes introduced through Am. S6. I will deal with the changes first.

The five-year margin allowed in Am. S5 for the removal of regrowth for re-establishment of pasture or cultivation was reasonable and adequate. The Ministry's supporting documents provide good justification for it, but we see no documentation (and indeed, can see no reason) for doubling the margin to ten years in Am. S6.

The problem of vermin is a very serious one, and there is a clear justification for an exemption from the amendment for this purpose. However, it seems unreasonable for one landowner to destroy up to 10 hectares of natural vegetation without a permit on the pretext of vermin control. If there are genuine cases where an area that large needs to be cleared from one property before 30th. November 1990, surely those cases are so few and the damaging potential so great that a permit should be required prior to the works being undertaken. The concern expressed by the Ministry in the Planning Guide in relation to erosion, slippage and so on should demand that a cautious approach be adopted. We suggest that a limit of less than 1 hectare be applied.

Am. S6 introduces an exemption to the destruction of native grasses on salinity recharge areas in order that deep-rooted perennials may be established in their place. This suggests lack of familiarity with scientific evidence on the subject. All native grass species bar

one in Victoria are perennial, and the only more effective group of plants for evapo-transpiration are trees. Rural tree decline is a serious problem, particularly in connection with salinity problems, and one of the major causes has been identified as replacement of native grasses by improved pasture (see, for example, the CSIRO periodical *Ecos* 62:8-15 (1989) and references therein). We believe there is a serious danger that Am. S6 might join a long history of regulations supporting environmental degradation in defiance of scientific evidence.

The three preceding paragraphs express our concerns relating to provisions first introduced in Am. S6. Let us now turn to the exemptions in Am. S5 which have remained in Am. S6.

Exemptions related to notices served under various acts (and particularly the CFA Act) are necessary but we strongly suggest that the administration of those acts be conducted with a recognition of all the values of natural vegetation which underlie Am. S6 and its precursors. For example, Fire Prevention Officers are apt to issue Schedule 19 notices in the standard form requiring all vegetation up to and including saplings to be cleared close to ground level. Often the needs of fire prevention would be as well served (or even better) by the retention of some of the vegetation required to be cleared, and this would also be more consistent with the value placed on natural vegetation in the drafting of Am. S6.

We therefore suggest that new vegetation retention regulations should be accompanied by an education program which aims to make administrators of the Forests Act, CFA Act and so on more aware of the concerns which have made the amendments under discussion here so necessary.

An exemption for wood used by a landholder is reasonable, but we suggest that a limit be imposed beyond which a permit is needed. This would ensure that personal use could not be used as a pretext for cutting large amounts of timber without a permit. Some people may have a justifiable need to cut large amounts of wood for themselves, but the numbers must be small and so the potential damage warrants requiring them to obtain a permit. We have no strong view on what the limit should be, only that a reasonable limit should be set.

Grazing is a potentially difficult issue, as the State Government has found in withdrawing cattle from the Alps to halt the damage done there. But the damage is clear and recognized, and we believe there is a way to address it equitably in the native vegetation retention regulations.

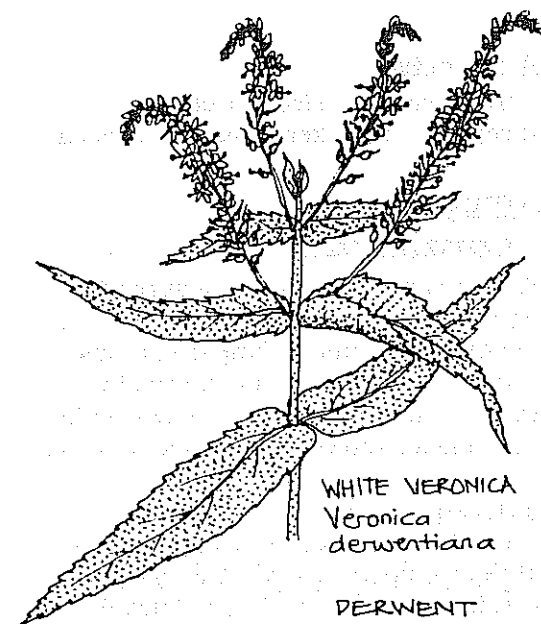
Large parts of Victoria with some degree of natural vegetation have been long grazed, and it is clearly impossible to prevent that from continuing. However,

the arguments put by the Ministry in support of the regulations clearly indicate that we cannot afford to lose any more natural vegetation, to new grazing or other pressures. We therefore suggest that a clause be inserted along similar lines to that concerning re-establishment of pasture and cultivated land: that an exemption be granted to destruction of native vegetation by domesticated stock on land which has been grazed during the past five (say) years. (Note that by deleting the words 'grazing by', the effects of trampling and so on are now implicitly included). The effect would be that grazing in new areas of natural vegetation would require a permit, and we believe that this is reasonable.

We finally suggest that the wording 'fire control measures' be tightened, since large-scale destruction of vegetation is often conducted under the flimsy or false pretext of 'fire control'. The specific control measures listed in Am. S6 are reasonable, and if there are any more, we believe they should be listed specifically, not leaving the scope unlimited.

Again, we compliment the Ministry on its efforts in what we regard as an vital issue for the welfare of the land and its inhabitants far into the future. We hope the suggestions above will serve to strengthen those efforts, and we look forward to the implementation of the regulations within local planning schemes throughout Victoria.

Graeme Lorimer (Dr.),
VICE PRESIDENT



white fls
annual shoots
from perennial
rootstock
upto 2m tall.

WHITE VERONICA
Veronica derwentiana

DERWENT
SPEEDWELL
Parahebe derwentiana

from Andrew Paget

April IFFA meeting:

Tuesday April 24th, 8 p.m. at the Herbarium Hall, Birdwood Avenue, South Yarra (Melways map 2G, 12A). **Judie Rawling**, Bush Management Officer with the National Trust of Australia (NSW) will speak on NSW bush regeneration techniques and experiences, and options for the setting up of a NSW branch of IFFA will be discussed.

Judie Rawling has been the Bush Management officer for the National Trust of Australia (NSW) for four years. Her background is in Environmental education and science teaching. She holds a Masters of Environmental Studies degree from Macquarie University. She sees her role at the Trust as a manager and educator, but this role is changing as the Trust tries to run itself as a business. She tries to instill the idea that revegetation is only one part of the Management process. **Judie's talk will be on "The Trust's role in bush management, and how this might be adapted for use in Victoria."**

May IFFA Committee meeting:

6.30 p.m. at Graham Lorimer's, 42 Gratten Rd, Montrose.

May IFFA meeting:

Annual General Meeting - election of Office-bearers and reports. Speaker to be announced.

Front Cover:

Acacia paradoxa (Hedge Wattle or Kangaroo Thorn) is a shrub or small spreading tree, 2—4 m; rather untidy, intricately branching and *armed with fine thorns* (enlarged stipules). Widespread in various situations, especially abundant in open forests on drier shallow soils; only rarely in moister mountain forests of eastern Victoria.

Foliage: (a) Dark-green leathery phyllodes, 1—3cm x 3—7mm, 1-veined, usually *wavy-edged*.

Flowers: (b) deep golden-yellow; large globular heads on slender solitary peduncles, August—November.

Pods: (c) Straight or curved, 2—6cm x 3—5mm, 'furry' with erect white hairs.

Seeds: (d)

Contents:

Commercial seed production of <i>Danthonia</i>	2
Australian Grasses Study Group	3
Plants of the Basalt Plains	4
<u>Snippets:</u>	5
<u>Coming Events:</u>	6
Statewide planning protection for native vegetation	10

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Articles: Contributions to *Indigenotes* should be sent to the editor, Tony Faithfull, 10 Alsace Street, Brunswick East, Victoria 3057, Phone (03) 3860264. The deadline for the bumper May issue will be Friday 4 May.

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

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